

Struggling against the Sea in Ban Khun Samut Chin:
Environmental Knowledge, Community Identity and Livelihood Strategies
in a Village Fighting Severe Coastal Erosion on the Gulf of Thailand

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Abstract

This research project investigates how a coastal community in the Upper Gulf of Thailand has been dealing with a local ecological crisis, the rapid erosion of their coastline and potential loss of the entire territory of their village. The case study examines the community's interactions with development agents and their engagement with broader political and economic forces. Empirically, the thesis is based primarily on participant observation of the community, Ban Khun Samut Chin, supported by extensive documentary research. Applying theoretical frameworks from the fields of political ecology, environmental sociology, and sociology of the self and everyday life, the thesis demonstrates some interesting findings. Firstly, rather than passive victims of national economic development and ecological change, many members of the Ban Khun Samut Chin community have proven to be sophisticated strategic actors. Through interactions with researchers and other external stakeholders, Ban Khun Samut Chin villagers have encountered multiple framings of their situation. This has provided them alternatives for self-understanding and self-representation, and allowed for sophisticated adaptation in the face of a challenging ecological and political environment. Articulating their identity as a self-sufficient, close-knit community, they have taken advantage of the romanticized ideas many of their potential supporters have about them, in order to secure resources for adaptation. The community has even found ways to leverage their ecological crisis in order to generate alternative sources of income, for example through "disaster tourism". The research explores how individual members of the community have negotiated their own somewhat inconsistent beliefs and hopes, and plans for the future. The research finds that despite their sophisticated understandings of different environmental narratives and possible scenarios for the village, most of the villagers continue to rely on their customary social networks and livelihood skills, as they struggle to adapt.

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Chapter 1

Introduction

1.1 Background

Ban Khun Samut Chin is a remote coastal community in Samut Prakan province, in the Upper Gulf of Thailand. It is only about 50 kilometres southwest of the capital city Bangkok and it would just be a small, quiet fishing village without anything particularly interesting about it, except for the fact that coastal erosion has been eating away at the village for decades. Today, there is a mere kilometre of land left between the coast and the village, and if it experiences any more erosion, the village will simply disappear into the sea.

The village was once home to hundreds of families, but many have had to leave as their houses have been progressively submerged under water. Others remain in the village but have been forced to move further and further inland, as the sea has encroached on what remains of the village. Numerous electricity pylons, which once stood at the shoreline, are now barely visible at a great distance from the coast, where their tips can be seen emerging just above the water line. The temple, which was once located far inland at the back of the village, is now surrounded by the sea, a lone structure stranded far out in the water and only connected to the rest of the village by a long concrete walkway. Coastal erosion has brought several groups of researchers to the village and, as a consequence, the village has found itself in the media spotlight.

Most of Thailand's coasts are experiencing severe erosion. Twenty-three, or almost a third of the country's 77 provinces are located in coastal areas. The total coastline of Thailand is approximately 3,148 kilometres long, of which 2,055 kilometres are along the Gulf of Thailand and 1,093 kilometres along the Andaman Sea. The Gulf is part of the South China Sea, which is connected to the territorial waters of Malaysia, Cambodia and Vietnam. It is characterized by relatively shallow waters, between 45-80 metres deep, with a level sea floor and a high influx of nutrients and freshwater from mainland rivers. On the west side of the country, the Andaman Sea features coral reefs, dense mangrove forests, limestone islands, and beaches with deep oceanic waters. Each year, 830 kilometres of coastline, in both areas, experience erosion levels greater than one metre. A report by the Department of Marine and Coastal Resources in 2011 shows that 11% of the Gulf of Thailand and 2% of the Andaman coastline have been eroding at a rate of more than five metres a year. This is equivalent to two square kilometres of coastal area being lost each year (DMCR, 2011).

The Upper Gulf of Thailand, which is about 150 kilometres long covers the coastal area of five provinces, namely Chachoengsao, Bangkok, Samut Prakan, Samut Sakhon and Samut Songkhram. Characterized by mudflat, this area has been experiencing the most severe level of coastal erosion at the rate of more than 35 metres a year. Some areas have been eroded more than one kilometre in the last three decades. The coastline in Samut Prakan province, where Ban Khun Samut Chin village is located, is in this hot spot area.



Figure 1.1: Location of Ban Khun Samut Chin Village

in relation to the Chao Phraya River and the Gulf of Thailand

Over the past 40 years, the sea has encroached upon Ban Khun Samut Chin village's coastline, swallowing up the shoreline. Situated on a tidal delta near the mouth of the Chao Phraya River, the mudflat shoreline has benefitted historically from natural fortification through regular deposits of river sedimentation. However, in recent years, this sedimentation has been overtaken by processes of coastal erosion, and the village's coastline has now retreated inland by over a kilometre. Local impacts are considerable. A community school and a local health centre have relocated several times. Households have been forced to continuously retreat further inland as the sea claims their homes. Some of the older residents have moved six or seven times. The village chief, for example, has moved her own house three times, and had previously, while still living with her parents, already moved five times. Many

community members have already given up, choosing to simply leave the village. In addition to natural processes, erosion in the village has been attributed, as well, to dam development upstream and a loss in mangrove coverage along the coast.

For decades, the village's mangrove trees were cut down to pave the way for aquaculture, which has become the major economic activity in this area, replacing coastal fishing. The better-off residents, for example, those who have access to land, have turned to shrimp and blood cockle farming. Meanwhile other villagers without land have become larval cockle collectors and wage labourers working on aquaculture ponds. Aquaculture in the study area requires minimal management and investment. The pond owners simply impound wild larvae from the sea and then let them grow to market size. The shrimps feed on naturally occurring organisms; there is no need to buy feed or fertilizer. Almost all the costs derive from the initial expense of setting up the ponds and from the construction and maintenance of dykes. Harvesting is carried out by draining the pond and collecting the shrimps in nets. However, the farmers harvest the shrimps in such a casual way that the yields are always uncertain. Some farmers also raise blood cockles, alongside the shrimps, in order to maintain their earnings. Cockle farming, like shrimp farming, requires little management since the cockles feed naturally on the nutrients in the clay at the bottom of the ponds. Farmers only have to impound larval cockles and then wait for them to grow to market size, a process which takes about a year. The production costs of cockle farming mostly derive from the initial cost of buying the cockle larvae and for pond dredging.

In Figures 1.2 and 1.3 below, the whole area can be seen covered by long narrow manmade ponds, with embankments between them. The map displays the changing landscape of Ban Khun Samut Chin village over the last 40 years. The small red box marks the site of the community temple, *Wat Khun Samut Taraward*. The picture on the left was taken in 1974, when the temple was still surrounded by land; the middle one is from the year 1992; the last one was taken in 2009.



Figure 1.2: “Map Displaying Changes of Ban Khun Samut Chin Village, Laem Fa Pha Sub-District, Phra Samut Chedi District, Samut Prakan Province”¹

¹ Source: Poster at the village chief’s house



Figure 1.3: The Roadless Landscape of Ban Khun Samut Chin²

Having fewer mangrove roots to stabilize the coast, the mudflats of the village, composed of sediment brought down the river, have been no match for the constant force of strong waves and storms of the Gulf of Thailand. To make matters worse, the erosion has been accelerated by a decrease in sedimentation due to dam construction upstream.

Ban Khun Samut Chin is only one example among hundreds of villages in the country facing the problem of coastal erosion. However, it is a very extreme case. It was estimated in a study conducted in 2010 that about 60.8 square kilometres of the village will be lost in the next 20 years if no action is undertaken to protect the coast (Intasupa et al., 2010).

² Source: <https://www.facebook.com/Bankhunjeen?ref=ts&fref=ts>

The villagers have lost not only their land but also many of their livelihoods to this process of coastal erosion. The development of dams and reservoirs upstream from the late 1950s onwards, which has significantly reduced the sediment yield in the Upper Gulf of Thailand, has also resulted in a decrease in the diversity of coastal animals. In response to this, coastal fishermen began to adopt new fishing methods in the hope of catching as many fish as they used to, but these methods proved to be unsustainable. Dredging devices were employed by some villagers, which further deteriorated the coastal ecosystem.

These problems were compounded for many villagers by their lack of land entitlement. Some pieces of land, for example, were sold to a remote businessman, who lives far away from the village. As parts of the shoreline sank into the sea, his pieces of land became the intertidal zone where the villagers collect larval cockles. The businessman decided to forbid people walking along this new shoreline, claiming the coastal waters and shoreline as his own private property. Coastal erosion has been a key catalyst for a series of livelihood challenges, which has led to several other social, economic and political problems.

The villagers have been trying to adapt to the problem at hand by using different methods and tools, especially in the years since they were devastatingly hit by Typhoon Linda in 1997. Even before they could fully understand the root causes of the erosion, they began to devise protective strategies. Some households who lived at the edge of the sea or had aquaculture ponds on the coast, built hard structures parallel to the coastline, in order to diminish the impact of waves and storms.

Examples of such structures are stone breakwaters, bamboo revetments, the heightening of dykes, and piles of rubber tyres. In addition, those who rented land tried to apply the protective options that they could afford. In some cases, property owners helped to pay for the adaptation costs in order to save their land. The community also joined together in efforts to raise funds to build stone and concrete-pole breakwaters to protect the community temple. When the protective strategies did not work, however, some villagers had to retreat or move their homes and ponds inland. New houses were normally built further inland and higher up on stilts, and new water gates and dykes were reconstructed for ponds.

Several types of construction have been tried out by the local people as well as by the government, but none has effectively alleviated coastal erosion of muddy shores in the Upper Gulf of Thailand. In 2006, a research team from Chulalongkorn University came to the area. The team constructed a 250-metre long piled breakwater, located about 500 metres out from the village coastline (Figures 1.3 and 1.4).

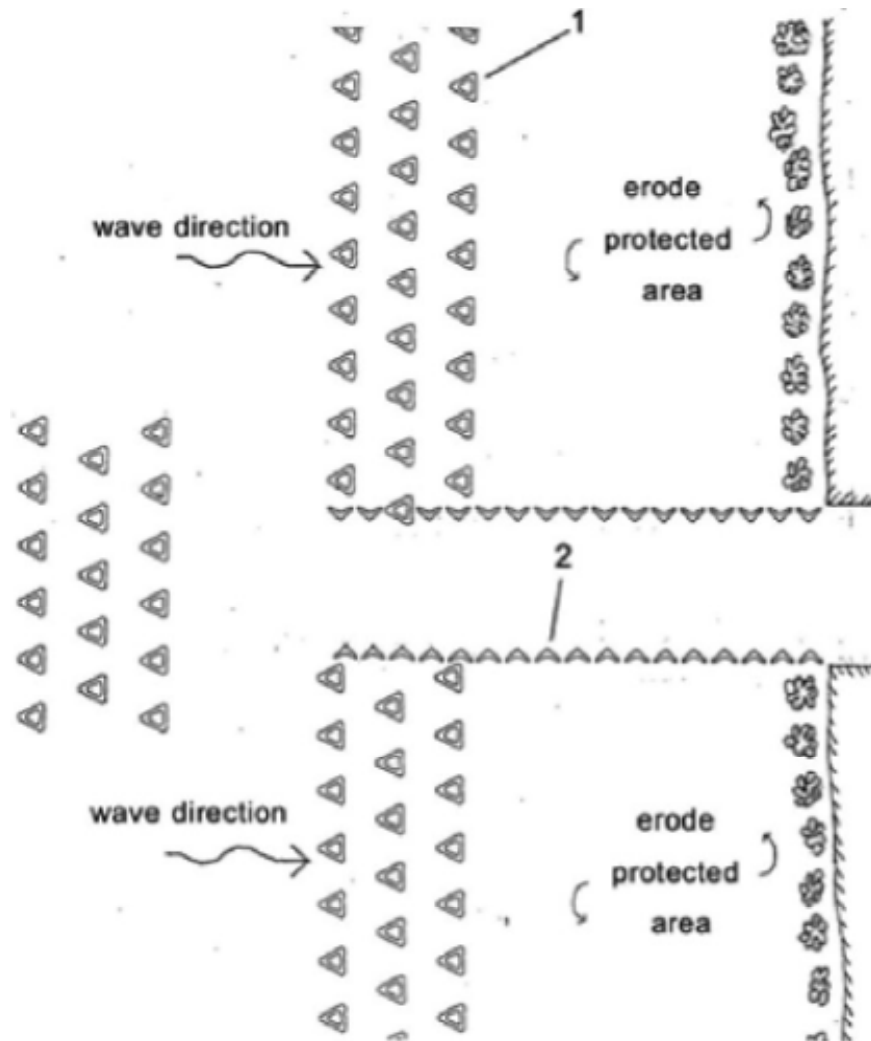


Figure 1.4: Sketch of Chulalongkorn Breakwater Model at Ban Khun Samut Chin³

(1) 3-Rows Piled Breakwater to Reduce Incoming Wave Height and Energy;

(2) Concrete Piles to Promote Sediment Deposition behind the Structure

³ Source: Intasupa et al., 2010



Figure 1.5: Chulalongkorn Breakwater Model Installed at Ban Khun Samut Chin⁴

The breakwater consists of three rows of equilateral triangular concrete piles placed about 1.5 metres apart. Rising three metres above the ground, the piles were designed to stay above the high water mark all the time. The piles in the first and the third rows were placed in parallel, with the piles of the middle row staggered in between, effectively reducing wave energy. However, it has proved so costly that the government cannot afford to build concrete piles along the whole village coastline (Jarupongsakul et al., 2008).

⁴ Source: <http://www.oknation.net/blog/chatchawas/2011/09/16/entry-1>

It was not only this engineering intervention to reduce wave energy that the Chulalongkorn research project brought to the community. Another interesting result of their research project was the broader empowerment of the community. As has become the norm in most development interventions in Thailand today, the research team employed a “participatory approach”, working with the villagers as research “partners” rather than just research subjects. The research team facilitated the participation of villagers in the formulation of a local development plan to cope with coastal erosion. Quite a number of villagers did not enjoy participating in these research activities; some even became frustrated when they had to take part in a workshop organised by the team. However, despite this frustration, local leaders learned quite a bit through their interactions with the academics. For example, the researchers organised fieldtrips for the local representatives to visit other communities facing similar problems.

Besides learning from these communities that they visited, the contacts they made have allowed the villagers to get involved in building a network with other coastal communities, mainly communities located in the Upper Gulf of Thailand. They meet regularly with others in this network, in order to share their problems and to brainstorm about possible solutions. The network has also gained financial as well as technical support from a regional governmental organisation, the Office of Marine and Coastal Resources Conservation. The network set up a learning centre for coastal erosion, the Learning and Operating Centre for Natural Resources and Environmental Conservation, Eastern Mahachai, which is open to the general public and promotes their activities. To make the network known to the general Thai

population, they also invited a production team of a national TV programme to join one of their meetings at the Centre. Through this network, the communities have supported each other in political demonstrations about environmental as well as social problems.

The Chulalongkorn research project has brought an influx of media outlets to the Ban Khun Samut Chin village since 2006. After the Chulalongkorn research team started their project, the study area welcomed a flood of media, at least a few times per week for a couple years, according to local leaders. This media attention, in turn, has brought many more researchers from other institutes and also increased attention from the general public, for example: (i) a lecturer, from the School of Business of the University of the Thai Chamber of Commerce; (ii) a group of researchers from the Dhonburi Rajabhat University, and (iii) an urban and regional planning student from Chulalongkorn University (Seyanont, 2010; Paengkun, 2011; Sriprasertkul, 2012).

The chief's son, who is also the leader of the Ban Khun Samut Chin Natural Resources Conservation Group, has started a daytrip package, bringing groups of visitors, usually students or employees of various organisations to visit the village. The groups take a walk along the outskirts of several aquaculture ponds, then on a concrete walkway through a mangrove forest to the community temple. They have lunch at the village centre, and then plant mangrove trees in the afternoon. He got the idea from some other communities they had visited.

One researcher from the Chulalongkorn team, who was very close to the community, in general, and with the village chief's family, in particular, also suggested to him that he should open a homestay business. This was a personal suggestion, rather than a formal suggestion on the part of the research project. Subsequently the chief's son built a small two-bedroom hut on stilts in their aquaculture pond, which I stayed while conducting my fieldwork, just a few years after it was built (Figure 1.6). Profit from these businesses has been used to fund the community natural resources conservation group's activities.



Figure 1.6: Two-Bedroom Hut Where I Stayed during Fieldwork⁵

In the years since I conducted my fieldwork, “disaster tourism” in the village has become very popular, having been promoted by a TV programme, *Lovers on Tour*

⁵ Source: <https://witnessstreephography.wordpress.com/category/samut-khun-chin/>

(Polyplus Entertainment, 2012a; 2014). “Disaster tourism” is tourism that revolves around a particular type of site, attraction or exhibition related to disaster (Nagai, 2012; Isaac & Çakmak, 2014). The chief’s family has expanded their business, building more huts to welcome more guests. Other better-off households have also entered into the business since 2012. The newcomers have been asked to contribute a certain percentage of their income from tourism to the conservation group as well.

As the community has encountered different ideas offered by different sets of external stakeholders about the root causes of coastal erosion and the possibilities for adaptation, the local people have begun to develop their own narratives about their changing environment and livelihoods. Different groups of social actors have offered Ban Khun Samut Chin layers of environmental knowledge, possible strategies for disaster mitigation and economic development, and alternative strategies for self-understanding and self-presentation. The community members have come to understand that they have been victims of the Thai state’s modernisation efforts, and that if they could sustain the interest and attention of outsiders, they could garner sympathy and support from the outside world.

The village chief always asks any media groups filming programmes about the village for a copy of their broadcasts. She also collects relevant articles from newspapers. She has made a number of copies and regularly gives them away to visitors, to help disseminate information about her village. Moreover, they have developed a tactic to link their problems to global and national issues, to aid in their fundraising. The village chief has written countless letters to local and national government officials,

and also to the King. She has even penned a request for assistance to Al Gore. They have framed their appeals to the public in broader terms, linking the coastal erosion in their community to global warming processes, for example.

1.2 Research Objectives

On first hearing about the village, I was intrigued to understand how this relatively marginalized community has come to realize their own power, articulating their disadvantaged position in way that attracted national attention, drew various sets of experts to their cause, facilitated the invention of new technical interventions, and generated new streams of income for the community. The main objective of this research is to investigate, using Ban Khun Samut Chin as a case study, the process by which a local community crisis led to potential empowerment through interactions with development regimes and engagement with broader political and economic forces. The research has been designed to explore how different groups of people in the community have responded, and adapted, to their changing environment, and to trace their participation in the changing definitions and framings of the ecological challenges they face.

1.3 Research Outline

The thesis is organised into seven chapters. In Chapter Two, the literature review, the link between relevant theories and the major assumptions of the study are clarified. I begin by reviewing a scientific literature on the evolution of the Upper Gulf of Thailand. I go on to look at theories of environmental change, vulnerability and adaptive capacity developed within the political ecology literature, and the literature on sustainable rural livelihoods. I then review literature from the fields of sociology and environmental history on the social construction of environmental problems, and environmental knowledge production and articulation at the individual and collective levels. Chapter Three presents my methodological approach and discusses dilemmas regarding method and research ethics.

Chapter Four explores the livelihoods of the study community, using a sustainable livelihood framework. An understanding of the community's livelihood practices is essential in order to understand its members' pursuit of different possible livelihood strategies.

Chapter Five looks into the complicated sets of influences that different groups of social actors have had on the Ban Khun Samut Chin community. The chapter is organised into two main periods. Firstly, I explore events that occurred prior to 2006, which was the year when interest in the village, from external stakeholders, intensified. Secondly, I focus on the period after 2006, showing how interactions with various social groups, namely academics, the media, popular organisations,

local government, have offered the community a variety of explanations about their changing environment and possible coping strategies. This section explores how the community negotiated these various external perspectives in constructing their own environmental knowledge and, at times, contesting imposed policy prescriptions.

Chapter Six attempts to explain how the community members have strategically articulated themselves as a united group, in order to achieve their common and individual goals. Also, I try to understand how individual members of the community deal with their own complicated, sometimes inconsistent, beliefs, hopes and actions. In addition, I explain possible reasons for their preferred livelihood strategies in adapting to their swiftly changing environment.

In the final chapter, the main conclusions and findings of this study are discussed. I also provide suggestions here for development practitioners working with local communities that are undergoing rapid environmental transition, regarding the planning and implementation of appropriate community engagement and conservation interventions.

Chapter 2

Literature Review

In this chapter, I discuss the relevant theoretical approaches adopted in this study. This review provides a framework to investigate processes of environmental knowledge production in Ban Khun Samut Chin, the role of its external stakeholders in shaping the community members' self-understanding and self-presentation, and how the community has gone about addressing its environmental changes.

I begin the chapter, in Section 2.1, with a review of the literature on the evolution of the Upper Gulf of Thailand. This literature presents the processes by which the scientific community in Thailand has developed theories of bio-physical changes in the study area. It explains how the scientific community has, in recent decades, come to understand the history and evolution of current threats to livelihoods within Ban Khun Samut Chin's coastal area, threats such as decreasing biodiversity and the various factors leading to the shifting shoreline.

In Section 2.2, I explore the development of approaches within the field of political ecology, which is the dominant framework employed for this study. Political ecology as a theoretical approach understands vulnerability to ecological changes in terms of the social, economic and political processes, that either facilitate resilience or restrict people's ability to face hazards, paying particular attention to how power differentials such as gender or class difference shape people's abilities to access resources, protection or security. Through the lens of political ecology, so called

“natural” disasters are understood as products of the relationship between natural hazards and the social, economic and political systems of society. Natural hazards do not inevitably lead to disastrous outcomes; the emphasis, instead, is placed on the combination of socio-economic and political contexts that affect people’s control over basic necessities and rights, and which therefore make it possible for hazards to become disasters (Blaikie et al., 1994; Cannon, 1994; Wisner et al., 2004). Since its emergence in the 1970s, when it challenged orthodox environmental science, which tended to explain environmental degradation in apolitical, asocial terms, political ecology has evolved from an inherently structuralist mode of analysis towards a more post-structural approach. While early political ecology employed structuralist modes of analysis, involving “chains of explanation” between the exploited poor in a given locality and the usually distant exploiters (Blaikie & Brookfield, 1987), more recent post-structural approaches have applied the insights of discourse analysis to tackle how environmental knowledge is produced, represented and contested (Adger et al., 2001; Bryant, 2001; Forsyth, 2003). This study employs classic political ecological analysis in analysing the social structure, livelihood practices and different kinds of exposure to ecological risk within the community, but adopts insights from more recent strands of political ecological theory to help understand the processes of environmental knowledge production in Ban Khun Samut Chin and its impacts on the community’s adaptive strategies in the face of their deteriorating ecological resources.

Section 2.3 takes a look at theories of community-based development for sustainable livelihoods. These approaches have provided the main development paradigm in Thailand in recent years (UNDP, 2003). According to Chambers and Conway, a livelihood comprises the (i) capabilities, (ii) assets, both tangible and intangible, and (iii) activities required for a means of living; according to them, a “sustainable livelihood” is one “which can cope with and recover from stresses and shocks, maintain or enhance its capabilities and assets” (1992: 6). The ability to pursue different livelihood strategies will depend on an individual’s unique stock of tangible and intangible assets. I apply this framework in Chapter Four of the thesis, where I present a description of current livelihood practices in the community, as well as an analysis of Ban Khun Samut Chin residents’ various assets and capabilities, as this can help make sense of the underlying reasons for community members’ own preferred livelihood strategies in adapting to rapid local ecological change.

In addition to the political ecology approaches reviewed above, I also draw, in this thesis, on a wider collection of concepts and theories from a variety of disciplines -- environmental history, anthropology and sociology -- which take a constructivist approach. I review these theoretical approaches in Section 2.4 of this chapter, beginning with Hannigan’s (1995) theory of social construction of environmental problems and Hajer’s (1995) theory of the politics of environmental discourse. I go on to discuss Demeritt’s (1998) and Proctor’s (1998) approaches to the social construction of nature and scientific knowledge, and Escobar’s (1998) understanding of how constructions of nature and culture are developed in the political strategies of social movements. These theories and concepts are applied in my exploration of

processes of knowledge production within the context of complex power relations and social negotiations between the Ban Khun Samut Chin community and a variety of external stakeholders in Chapter Five of the thesis.

In the final section of this chapter, 2.5, I provide an overview of some key theorists of the relationship between social representation and self-understanding: Goffman's (1959) theories about the presentation of self in everyday life; Cohen's (1985) theorization of the symbolic construction of community; Li's (1996; 2000) approach to identity articulation in resource politics; and Swidler's (1986; 2001) framework for understanding culture's effect on action. The approaches of these theorists are key to my analysis, in Chapter Six, of how Ban Khun Samut Chin community members have come to understand the multiple expectations of different external stakeholders, how the community has intentionally presented itself in response to those expectations, and how individual community members shaped their own livelihood agendas and longer term plans. This literature also provides tools to examine how the villagers collectively pursued a variety of actions and livelihood strategies, while as individuals they managed to simultaneously hold a variety of different beliefs and hopes, some of which were actually inconsistent with each other. The theoretical insights provided by these approaches help to explain the fundamental reasons why they relied on certain political, representational and livelihood strategies in coping with, and adapting to, lives in a disastrous zone that could soon disappear.

2.1 The Evolution of Scientific Understanding of Coastal Erosions in the Upper Gulf of Thailand

In Thailand, the very first research on the subject of coastal erosion can be traced back to 1989. The scientific community in Thailand has only come to understand the causes of this erosion in the last few decades. Numerous groups of scientists have conducted research in their fields of expertise, which have added pieces to the puzzle, helping to explain the underlying causes of the environmental change in the Upper Gulf of Thailand. However, the first comprehensive study on factors affecting coastal erosion in my study area was only recently developed, when research by the Chulalongkorn University came out in 2009.

The conversation about coastal erosion began with a seminal government report by the Research Report of the National Research Council of Thailand published in 1989, entitled *Coastal Morphology with Emphasis on Coastal Erosion and Coastal Deposition* (cited in Vongvisessomjai, 1992). A few years later, Vongvisessomjai (1992) wrote an academic article identifying causes of coastal erosion in the Gulf of Thailand and remedial measures. He highlights two major factors leading to the coastal erosion in the Upper Gulf of Thailand: (i) wave and wave induced current; and (ii) a decrease of sediment supply from the Chao Phraya River to its mouth. Later, Nutalaya et al. (1996) identified land subsidence in Bangkok during 1978-1988, caused by deep well pumping, as another factor influencing coastal erosion in the Bangkok Metropolitan Region, where Ban Khun Samut Chin located.

In a study published in 2000, Sinsakul added another potential causal factor.

Because sea level fluctuation has been common in the area throughout history, the property of the soil of the Chao Phraya Delta is relatively susceptible to subsidence and compaction. Thampanya et al. (2006) supported Sinsakul's argument, pointing out that coastal erosion and accretion are natural processes, which have occurred irregularly along the coast. Yet, they suggest that an intensification of erosion in Thailand has been particularly evident since 1990s, due to human activities: larger areas of shrimp farming, which have increased exposure to the recurrent monsoons; and the construction of dams, which has reduced riverine sedimentation.

Meanwhile, a report by the Office of Natural Resources and Environmental Policy and Planning (ONEP, 2007) on *Critical Situation of Coastal Erosion along the Gulf of Thailand* also highlights sea level rises due to global warming as one of the anthropogenic causal factors of coastal erosion. There seems to be a subtle disagreement about the relative importance of human activities versus inevitable natural processes for coastal erosion in the Upper Gulf of Thailand.

The most comprehensive scientific report on coastal erosion of Ban Khun Samut Chin area was prepared by the Chulalongkorn research team (Jarupongsakul et al., 2009). In their study, the research team draws on all of the aforementioned possible causes of coastal erosion in the study area, but sees the wave and wind action as the most salient factors. However, the relative significance of these and other factors is still contested. The scientific picture of which key causal factors are responsible for the coastal erosion in the area has become more comprehensive over time; however, the relative significance of the various causal factors is still unclear, and

therefore, predictions for future trends and possible interventions remain contested as well. There are several narratives explaining possible causes of coastal erosion, and the relative salience of natural processes versus human activities, such as mangrove deforestation, urbanisation, climate change and the damming of the Chao Phraya River. In the discussion that follows in the remainder of this section, I present each of the key causal factors in a bit more depth, in order to provide the reader with a better understanding of the processes of ecological change in the study area, beginning with a number of natural causes, and then discussing some of the key anthropogenic factors.

Historic Changes in Sea Level

The Chao Phraya Delta has historically been evolving due to changing sea level. The “Chao Phraya Delta” is the landform that was created in the Holocene Epoch; it was formed where the Chao Phraya River interacted with marine processes, including the sea level changes that occurred during that period (Sinsakul, 2000). The profile of hydrogeologic strata indicates that the Holocene sea reached a maximum height of four metres above the present mean sea level around 6000 B.C. The sea level then fluctuated, reaching its present level around 1500 B.C. These sea level changes have resulted in the historic creation of delta deposits and an intertidal zone along the Upper Gulf coast of Thailand, characterized by deposition of fine-grained sediment, predominantly silt and clay, from rivers. As a result, the area is relatively susceptible to subsidence and compaction, which are contributing causes of coastal erosion.

Monsoons, and Wind and Wave Agitation

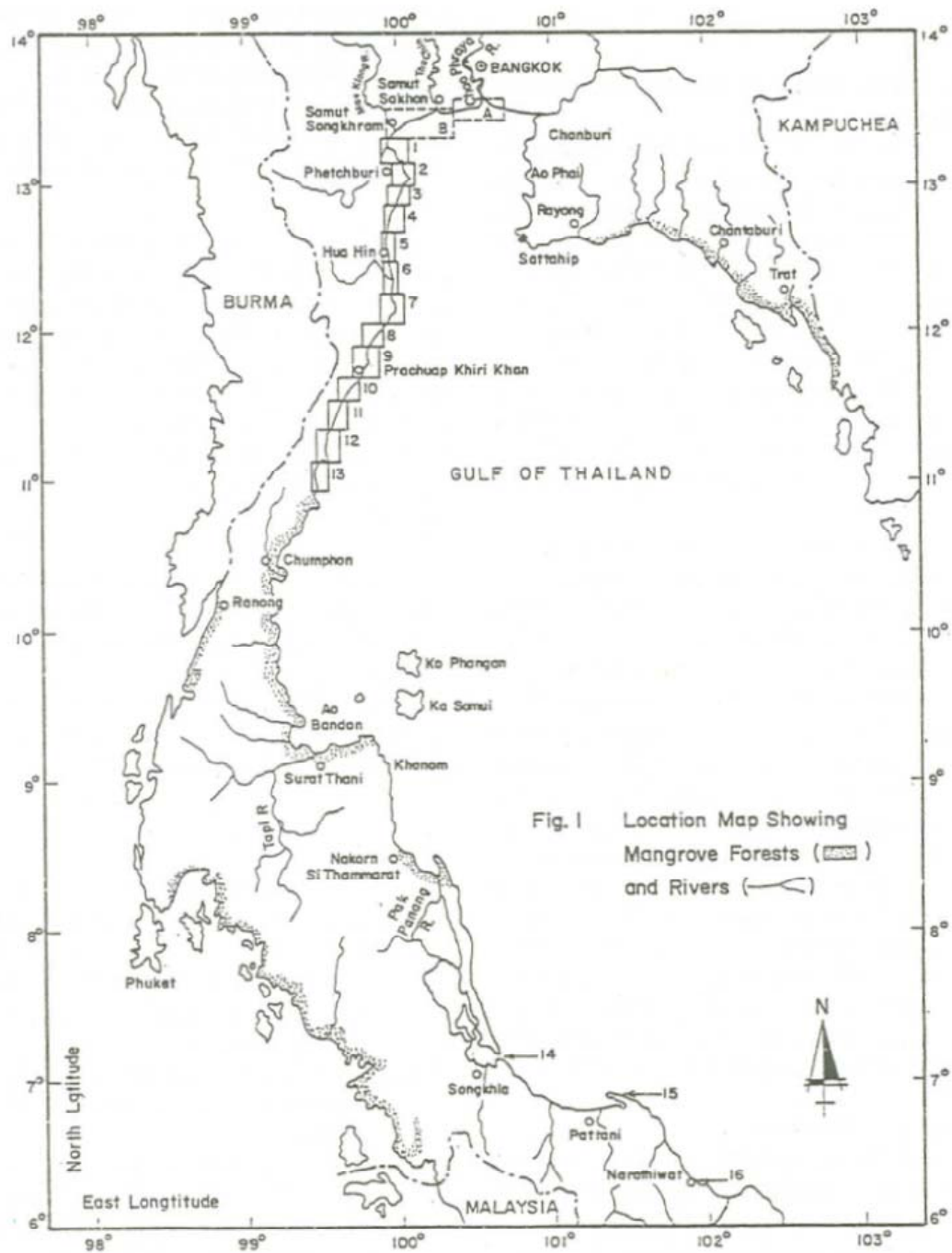
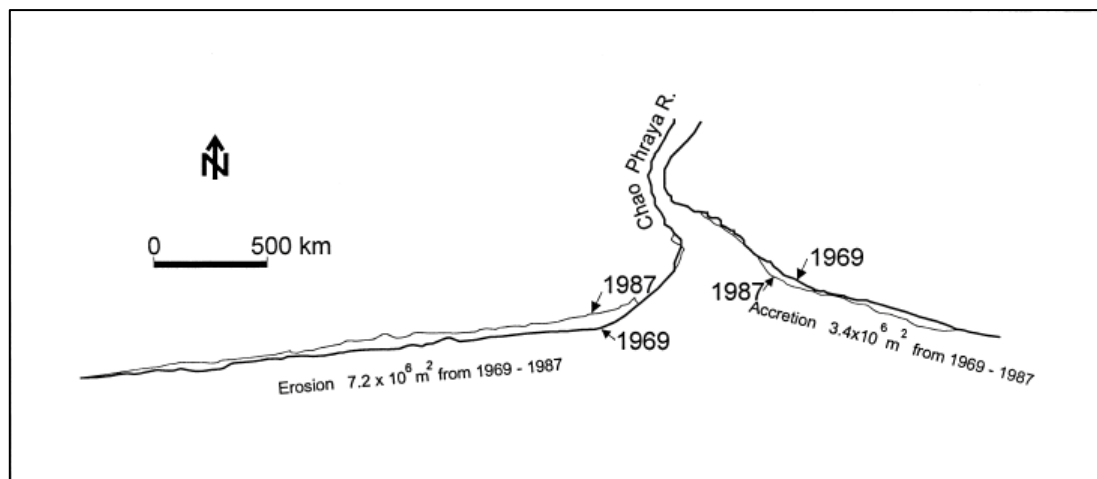


Figure 2.1: Location Map Showing the Gulf of Thailand⁶

⁶ Source: Vongvisessomjai, 1992: 44

Thailand has a tropical climate influenced by two monsoonal winds: (i) the northeast (NE), prevalent from mid-October to March, and (ii) the southwest (SW) during May to September. The NE wind, having a longer fetch, mainly generates waves along the west coast of the Gulf of Thailand. The SE wind generates moderate waves along the east coast of the Gulf, and brings moderate to heavy rains. The retreat of the monsoons during September and October is often accompanied by peaks in wind and wave intensity; these are caused by cyclones, which are generated in the South China Sea (Vongvisessomjai et al., 1996). Both monsoonal winds and cyclones, however, affect the Upper Gulf of Thailand (Thampanya et al., 2006; Vongvisessomjai, 2007; Vongvisessomjai, 2009).

The two monsoon seasons drive sand and sediment not only down, but also up the coastlines. The coasts have traditionally been able to restore much of what they lose through erosion each year, but in many areas, such as the Ban Kun Samut Chin coastline, the long-term trend over the last few decades has been one of persistent erosion. The uneven movement of sand or littoral drift there has resulted in net movement and transportation of sand away from the west coast of the Chao Phraya River mouth, where Ban Kun Samut Chin is located (see Figure 2.2 below). According to Vongvisessomjai (1992), the erosion rate of the west coast of the Chao Phraya River Mouth was roughly five metres each year in the 1970s and 1980s. From 1969 to 1987, the area eroded approximately 7.2×10^6 square metres, with a maximum eroded distance of 500 metres.



**Figure 2.2: Coastal Erosion at the Chao Phraya River Mouth,
Upper Gulf of Thailand⁷**

Groundwater Extraction

The natural, continuous process of coastal erosion in Thailand has been exacerbated by several human-induced activities over the last half century. Excess groundwater extraction and changes in land use in Bangkok and adjacent areas since the 1960s have led to land subsidence of the coast around the Chao Phraya River mouth. A study during 1978 and 1981 discovered that subsidence had been rapid, about 5-10 centimetres per year in central Bangkok, and over 10 centimetres per year in parts of its broader vicinity (Sinsakul, 2000). The land subsidence rates began to decrease after the introduction of groundwater management between 1983 and 1985. The same study, between 1989 and 1990, showed that the rates had dropped to 1-2 in the central area of Bangkok and 2-3 centimetres in its eastern area. Despite this trend, however, a gentle lowering of the ground surface can still be witnessed in the

⁷ Source: Vongvisessomjai, 1992: 50

Chao Phraya Delta Plain. This has led to increased wave energy in the subsidence-deepened intertidal zone, which is one of the main mechanisms of coastal erosion.

Dam Construction

Subsidence has been accompanied by gradual sediment reduction as a result of dam construction. A report by the Office of Natural Resources and Environmental Policy and Planning (ONEP, 2007) pointed out that the annual siltation volume in the Upper Gulf coasts was reduced from 25.3 to 6.6 metric tons after the construction of Bhumibol Dam in 1958 and Sirikit Dam in 1968. Since the soft clay predominant in the Chao Phraya River mouth's uppermost stratum has been subject to compaction, riverine sediment flux and a sustained load of water are crucial in order to maintain the ground level of the intertidal zone (Vongvisessomjai, 1992; Sinsakul, 2000; Saito et al., 2007). The reduction of sediment and water flows, caused by dam construction, therefore, has also exacerbated the sinking of the land.

Loss of Mangroves

In addition, a drastic decrease of mangrove forest in the Lower Chao Phraya Delta has aggravated a landward shoreline shift. Loss of vegetation cover has partly been induced by the presence of dams, as they have reduced sediment delivery to the coast, lowered the intertidal flat, and thus exposed mangrove roots, leading to their final collapse (Thampanya et al., 2006; Prasetya, 2007). However, the destruction of mangrove habitat in the river mouth area and neighbouring coastal zones has also

been exacerbated by the encroachment of salt farms and aquaculture ponds, and by charcoal production and urbanisation (Saito et al., 2007).

The Chao Phraya Delta Plain, which took several thousands of years to develop, is currently at risk of severe coastal erosion at a rate of more than 15 metres per year (ONEP, 2007). In addition to a variety of natural phenomena, sufficient evidence has accumulated that human activities in the river drainage basin as well as on the delta plain have intensified the process.

2.2 Political Ecology

In this section, I review some key literature in the field of political ecology, which provides the basic framework that I employ in my thesis. Political ecology understands ecological change and human vulnerability in terms of the social, economic and political processes that restrict people from having sufficient livelihood assets to face environmental hazards. Political ecologists look closely at the processes of socialisation, economic development and politics, and at how they affect the ways in which people interact with the environment. They ask questions like who has access to, or is restricted from, communal environmental resources. Are those resources used sustainably or deteriorating over time? What are the impacts on the livelihoods of different social groups? Environmental inequality is one the key themes that political ecologists explore.

Since the 1980s when political ecology was first developed as field of study, it has evolved from classic structuralist modes of analysis to more recent approaches, which focus more on the issues of identity formation, influenced by the post-structuralist social theories. Basically, the classic modes demonstrate the importance of examining the linkages between local environmental issues and national and global political-economic processes, the idea that different localities within capitalist economy are inextricably linked to the exploitation of natural resources. The recent approaches involve discourse analysis. They are employed to explore the ways in which environmental knowledge, such as scientific understandings and indigenous wisdom of ecological systems, is used both to promote particular political positions and to contest ownership claims. This thesis applies the classic political ecological approaches, in analysing the social structure, livelihoods, and potential exposure to ecological risk within Ban Khun Samut Chin, as well as more recent approaches of political ecological theory to help understand the processes of environmental knowledge production and its impacts in the community. In this section of the literature review, after first introducing the broad concerns of political ecology as an approach to social analysis, I then discuss the key approaches from both the earlier and the more recent strands of political ecology which inform my own analysis.

Political ecologists often challenge common ways of thinking about environmental problems. Forsyth (2003) calls these common assumptions “environmental orthodoxies”. For example, one environmental orthodoxy regarding shifting cultivation has been the belief that such practices are destructive of forests, have low agricultural productivity, and cause a variety of environmental problems in the

lowland, problems such as water shortages and sedimentation. Research in the field of political ecology, however, has shown that shifting cultivation may not actually cause deforestation, but rather often encourages the development of specific types of forest and biodiversity. Another common environmental orthodoxy in many developing countries concerns agricultural intensification. This is the belief that population growth is leading smallholders to increase agricultural intensification to unsustainable levels, leading to soil degradation and erosion. New findings by political ecologists, however, reveal that methods of agricultural intensification are complex. They may involve a variety of livelihood strategies including income diversification from seasonal migration, or intensified methods of increasing production which do not cause environmental degradation (Forsyth, 2003: 39-42).

Political ecologists also pay close attention to issues of environmental justice: who has access to resources and who is more exposed to environmental threats and harms. Two key theorists within this tradition, Bryant and Bailey explain that political ecologists “accept the idea that costs and benefits associated with environmental change are for the most part distributed among actors unequally.” They point out that this “reinforces or reduces existing social and economic inequalities” and has “political implications in terms of the altered power of actors in relation to other actors” (1997: 28-29). They show how environmental changes are interrelated with unequal social, political and economic relations in society.

Political ecology emerged during the 1970s to challenge a number of persistent mantras in orthodox environmental science that tended to explain environmental

degradation in apolitical, asocial terms (Robbins, 2012; Neumann, 2005). The most prominent mantras that tend to dominate in global conversations about environment are the “limits to growth” and “modernisation” narratives. The “limits to growth” narrative claims, from a neo-Malthusian stance, that population growth is the principal culprit in eco-scarcity, and that population control is the necessary solution for ecological crises. The “modernisation” narrative argues that ecological crises throughout the world are the result of inadequate adoption and implementation of modern economic techniques of exploitation and conservation. It sustains that Western technologies should be diffused towards the developing world to optimise the use of natural resources. Political ecologists, on the other hand, emphasize the importance of reconfiguration of the distribution of power and goods, and the development of alternative, appropriate technologies for different local development trajectories.

The term political ecology first appeared in the 1970s, but was not until 1987 that the concept was accompanied by a well-developed set of theoretical and methodological suggestions for investigating the relationship between politics and ecology. A seminal framework for the field was developed in the widely recognised work, *Land Degradation and Society*, by the geographers Blakie and Brookfield (1987). Their work emphasizes the historical elements of environmental change, the role of social marginalization, and the importance of political influences on how environmental and social problems are measured. Those who have access to political power usually publicize environmental problems in a way which is at least not unfavourable to their interests. The book has laid the foundations for the field of

political ecology. A key element in their formulation of political ecology was the idea of marginalization. Blaikie and Brookfield identify three interdependent dimensions of marginalization, namely economic marginality, biophysical limits, and social exclusion. They argue that changes in the status of one dimension can bring about changes in the status of the others.

Through the lens of political ecology, so-called “natural” disasters therefore should be understood as the product of the relationship between natural hazards and the social, economic and political systems of society. Natural hazards do not inevitably lead to disastrous outcomes; the emphasis, instead, is placed on a combination of socio-economic and political contexts that affect people’s control over basic necessities and rights, and which, in turn, make it possible for hazards to become disasters (Blaikie et al., 1994; Cannon, 1994; Wisner et al., 2004).

Change in biophysical conditions has been conventionally perceived as a trigger event leading to disasters. Yet, there are social factors involved, which cause people’s vulnerability. Social, economic and political processes influence the unequal distribution of impacts from physical changes in the environment among different groups of people within an affected community. From the 1990s onward, more scholars began to understand environmental insecurity as a manifestation of broader political and economic forces, arguing that the deep-rooted and complex causes of environmental problems needed to be addressed by profound changes in political and economic processes at the local, regional and global level (Cannon, 1994; Bryant and Bailey, 1997; Kelly & Adger, 2000; Alwang et al., 2001; Cardona,

2004). Human activities can sometimes modify biophysical events many miles away and/or many years later. In the case of Ban Khun Samut Chin, for example, the construction of large dams for national power generation and regional irrigation has caused local coastal erosion years later, as the dams have blocked the flow of sediment downstream.

Classic Structuralist Approaches

Three classic narratives of political ecology are those concerning: (i) degradation and marginalization; (ii) conservation and control; (iii) environmental conflict and exclusion (Robbins, 2012). The degradation and marginalization narrative, for example, attempts to explain environmental degradation, long blamed on marginal people, in its larger political and economic context. It argues that environmentally friendly subsistence communities undergo a transition to overexploitation of the natural resources on which they depend and end up in a vicious circle of poverty due to the intervention of state development policies and increasing inclusion of local producers in the global capitalist markets. The theoretical underpinnings of this argument revolve around two central assumptions (Robbins, 2012). The first assumption is that, with declining economic margins in increasingly competitive global markets, individual producers tend to extract more and more from the ecological system, in order to balance their losses. The second assumption is that, after passing particular thresholds, the degradation of ecosystems develops progressive momentum, making it difficult to ever restore them to their former states. Landmark publications by Blaikie (1985) and Blaikie and Brookfield (1987), for

example, demonstrate how decreased sustainability of local practices, such as the phenomenon of soil degradation in the developing world, is paradoxically a result of modernist development efforts to improve traditional production systems.

However, it is to be noted that political ecologists like Blaikie and Brookfield do not imply that exploitation does not happen under other economic regimes. Nor do they claim that all environmental degradation is a product of economic marginalization. Political ecologists merely suggest that under conditions of increasing economic marginality and disruptive social change, undesirable ecological change tends to increase in momentum and become difficult to reverse.

Meanwhile, the environmental conflict narratives developed by political ecologists perceive environmental problems to be part of larger gendered, classed and raced struggles to secure control of collective resources (Robbins, 2012). Similarly, these narratives address the ways in which existing and long-term political conflicts within and between communities can become ecologised when they have an impact on environmental processes and policies. Political ecologists have learned that division of labour and access to productive resources, which differ from society to society and across historical periods, are not natural or inevitable. Unfair distributions of labour and lack of access and opportunities, indeed, become the source of political struggles. These social facts are of interest to political ecologists as they can help explain who benefits and who is harmed by development projects, environmental policies, and environmental changes. Also, post-colonial analysis of conservation and development history has shown that development activities and environmental management initiatives tend to be based on gendered, classed and raced

assumptions about future beneficiaries. In particular, development projects reflect the socially situated imaginaries of the planners about the subjects of development. Planners can tend to overlook the fact that within the same community, different members may have different interests. Because of their political marginality, some community members become invisible to decision-makers and donors. Ignoring them can potentially cause conflict.

Scholars of the mainland Southeast Asian nation of Thailand, for example, such as Delang (2002) and Santasombat (1994), have explored how landless ethnic minorities who traditionally practiced shifting cultivation, or slash-and-burn farming in the highlands, have been blamed by the authorities, the international community, and academics, as well as the popular press for what has been considered an inefficient use of the forest, ultimately leading to deforestation. As Delang points out, these hill tribes have been marginalized people, with no voice in the national political arena or the national press. Not surprisingly, the wider political framework producing large numbers of landless farmers in the first place has been ignored. Meanwhile, the role of other forces driving deforestation, such as logging companies and agribusinesses, often owned by national politicians or their associations, have been downplayed. Based on two misconceptions, the idea that the highland populations were enemies of the forest and the assumption that swiddening caused water imbalance, the Thai government outlawed swiddening, displaced hill tribe villages, and planted pine trees wherever possible. Since the solutions resulted from these misunderstandings, however, Delang (2002) explains, they did not address the problem and were even counterproductive. The hill tribes, who had traditionally

looked after native forests surrounding their villages because they provided them with food, shelter, fuel and so on, found no reason to look after the pine plantations. As a consequence, the government has had to employ salaried workers to manage forest fires and replant the area. In addition, constantly replanting pine trees at elevations where they do not naturally occur, excluding all the other species that were native to the areas, has altered the soil conditions contributing to the further drying of the watersheds.

Post-structuralist Approaches

More recent narratives in political ecology, influenced by discourse analysis, focus on the theme of environmental subjects and identity. The narratives trace the emergence of new groups of people, with their own emerging self-definitions, understandings of the world, and ecological ideologies and behaviours. Where the state has extended its power into local ecologies, new ecological identities can arise to challenge the institutionalized environment management regimes. Contrary to the rather bleak imagery of degradation and marginalization, where state domination and exploitation leads to the destruction of productive resources and local producers, recent studies explore how otherwise disparate communities, across class, ethnicity and gender, are drawn together to secure and represent themselves politically.

Some of this new work in political ecology has been inspired by the theories of James Scott (1976, cited in Robbin, 2012). Scott is a political scientist who explored how small-scale producers have traditionally been primarily preoccupied with preventing livelihood fluctuations that could cause their households to fall into hardship. This risk-minimization principle has led to the development of social arrangements and relationships, regulated by ideologies of patronage that define reasonable levels of surplus extraction in good years and appropriate forms of assistance in bad years. When this moral regulation fails, everyday forms of resistance, ranging from slander and back talk to work slowdowns and pilfering, can be used as a defensive mechanism to resist against subsistence threats caused by property owners and officials (Scott, 1985). Contemporary struggles, however, often evolve in reaction to the modern ways in which livelihoods are challenged and violated. These challenges are relatively more general and regional in scale, such as large dam-building projects that can cause large-scale displacement, affecting both rich and poor. Traditionally divided communities can, in these circumstances, unite to fight against certain forms of development to which they are vulnerable, which can lead to the formation of new collective identities galvanised around environmental knowledge (Robbins, 2012).

Recent work in political ecology, such as work by Li (1996), Escobar (1998), Agrawal (2005) and Robbins (2012), has incorporated attention to some key post-structural concepts, like governmentality. According to Robbins (2012), controlling the environment is a kind of governmentality, to the extent that it is in part about projecting and enforcing expectations about what is normal; under a condition of

that normality, individuals and communities subvert their ecological priorities to the interests of the powerful institutions. In view of that, normal environmental values may be those implanted into people's daily practices from state mandates designed to categorize or govern the environment. The general public comes to internalize the norms of the authorities themselves, and becomes self-governing, through the process of governmentality. Environmental norms of state agencies can thus come to govern what people think and who they think they are. Nevertheless, under the imposition of ecological institutions, there are limits of tolerable exploitation beyond which less powerful actors are compelled to confront those expected identities. Both consent in, and dissent from, environmental regimes can transform peoples' self-identification, and ultimately, even shift norms or state policies. Agrawal (2005), for example, studied the effects of concession by the British colonial authorities to local control of forest resources in a hilly region of Northern India. These forests had long been key resources for local residents who were responsible for repetitively burning down the woods. He demonstrates how this community-based conservation initiative brought about the end of these fires, which had previously eluded state authority control. Indeed, this initiative transformed the villagers' attitudes about forest, and about themselves. They have become more environmentally concerned and viewed themselves as the protectors of the forests.

Examples of identity-based environmental movements in Thailand are shown in Forsyth's work. Forsyth (2001; 2002; 2007) suggests that class differences still matter for the environmental movements in the country. In an article from 2007, Forsyth analyses the social composition of environmental movements with different

kinds of political messages. He analyses nearly 5,000 newspaper reports from 1968 to 2000 to assess the involvement of middle and lower class participants, and the environmental values associated with different movements. He finds out that those considered “middle-class” actors tended to focus on the over-exploitation of natural resources while the “lower-class” activists were more livelihood oriented. The categories he used to identify the class of social actors are summarized in Table 2.1 below.

Table 2.1: Summary of Guidelines Used for Identifying Social Actors⁸

“State” actors	“Middle class”	“Lower class”
<ul style="list-style-type: none"> – Politicians (i.e. ministers) – Government ministries – Government agencies at central, regional and local levels (and their spokespeople) 	<ul style="list-style-type: none"> – Academics – Elite or educated Thais (including university students speaking as students) – Aristocrats (except the highest members of Thai royalty) – Some NGOs with high middle-class involvement – Politically active monk – Media (which is considered as the fourth pillar of democracy due to its importance in shaping public opinions) 	<ul style="list-style-type: none"> – Factory workers, agricultural workers, residents of poor housing – Trade unions – Grassroots networks – NGOs or alliances associated with disadvantaged people

In his article, Forsyth (2001) draws attention to the construction of the environmental norms, which are often used as scientific justifications for social activism. He argues that environmentalism, which has been associated with the

⁸ Forsyth, 2007: 2116

“new social movements”,⁹ has understated the role of class in political alliances, and the in construction of environmental discourse. He challenges the assumption that environmental social movements in developing countries are socially inclusive. Evidence from Thailand, he argues, suggests that discourses of environmentalism have been adopted by different actors to support various different kinds of political objectives. He observes that overtly “green” movements, often concerned mainly with issues like deforestation, have tended to support policy proposals relevant to the urban elite and the middle classes, rather than addressing the primary needs of peasants or factory workers. An obvious example is those community forestry policies that propose the exclusion of people from forests. Forsyth emphasises the need to pay more attention to the social origins of environmental discourse in order to avoid the misperception of these discourses as scientifically neutral and non-political.

In other work, Forsyth (2002) has highlighted that environmentalism in Thailand tends to be dominated by the middle classes, while grassroots organisations and poorer people usually lack the political or communicative power to influence existing discourses. He argues that, when they do engage in environmental activism, poorer groups may willingly choose to adopt pre-existing middle class discourses, in order to add legitimacy and potency to their campaigns, even when such discourses do not ultimately match their concerns.

⁹ Forsyth (2001) explains that “new social movements” have been understood as those that express new social identities (such as feminist, racial, environmental and gay-rights) and are often movements that emerge in opposition to oppressive social norms or bureaucracies in post-industrial society.

In my case study, Ban Khun Samut Chin villagers have adopted some discourses proposed by their external stakeholders, such as narratives that see global warming as a major cause of coastal erosion in their community, in order to attract attention from the national “middle-classes” who are concerned about such issues. This thesis explores how the community have aligned themselves with various narratives proposed by their external stakeholders, using post-structuralist approaches informed by the political ecological work of Li (1996), Escobar (1998), and Forsyth (2002).

2.3 Community-Based Development for Sustainable Livelihoods

This section looks at the evolution of the community-based development paradigm in Thailand. This paradigm provides the background for “community” thinking in Thailand. Also, I discuss the sustainable livelihoods framework that I apply in Chapter Four. This framework, developed in research from the Institute of Development Studies, can help identify the Ban Khun Samut Chin community’s collection of assets, in order to make sense of the underlying reasons for the villagers’ preferred livelihood strategies and environmental adaptation efforts.

The Rise of Community-Based Approaches to Development and Environment in Thailand

Community activism and community-based approaches to development in Thailand arose, in the 1980s and 1990s, in reaction to a particular history of political development and state policies. The modern Thai state, constructed at the turn of the twentieth century, was originally highly centralized (UNDP, 2003; Baker & Phongpaichit, 2009). In the 1960s, the Thai state fell under the control of military dictators. Power remained highly centralized during this period, and civil society was suppressed. Top-down development policies geared towards industrialization brought high rates of economic growth, at the expense of many local communities, which suffered disruption, environmental destruction, and growing inequality. The first national development plan was launched in 1961 under the new military dictatorship. This plan, like all of its successors until the mid-1990s, prioritised economic growth, achieved primarily through the development of industry and the urban economy. This growth-based, top-down, industry-led, and urban-biased development, however, served to widen the gap between rich and poor in the country.

The mid-1970s witnessed the collapse of external support for the dictatorship, leading to the gradual emergence of popular organisations and demands for formal democratization. However, the country had been under the control of feudalism and dictatorship for so long that paternalism remained deep-rooted in the bureaucratic system, and the resulting democracy was highly exclusionary. However,

marginalized groups came together in the 1970s and 1980s through new forms of organisation and protest, challenging the authorities, and demanding a more meaningful democracy. Several hundred thousand community-based organisations and networks began to develop in this period, in order to tackle a wide range of issues; the most widespread and successful were those focussed on micro-finance and natural resource management (UNDP, 2003).

Partially in response to these popular demands, but also, in line with global trends in development thinking, poverty eradication became a more significant part of the planning agenda in Thailand beginning in the 1980s. The Fifth National Economic and Social Development Plan (1982-1986) included a poverty plan which, inspired by a basic needs approach, identified poverty-stricken villages for special treatment. However, these first efforts were carried out by central agencies.

By the early 1990s, however, demands for greater political openness and social justice had created powerful pressures for change in both the political framework and the orientation of development policy. In 1993, the Thailand Research Fund (TRF), a state funding organisation for research, was founded. The TRF identified research to empower local communities as one of its priorities, introducing a major advance in research on community issues. Some of the projects funded by the TRF include pragmatic issues such as factors contributing to community strength, how to encourage people's participation, and how to incorporate local wisdom in order to enhance community productivity (TRF, 2014).

Also, the administration of provincial Thailand, which had been highly centralized, began to be decentralized during this period. In 1994, the *Tambon* Council and *Tambon* Administrative Authority Act, B.E. 2537 was passed. The act made the sub-district (*tambon*) the main site for decentralisation. It enabled a sub-district to be transformed into a sub-district administrative organisation (SAO) with legal status, the right to make by-laws, and the duty to local development (Missingham, 1997; UNDP, 2003).¹⁰

In the late 1990s, more institutional shifts towards community empowerment could be witnessed. The drafting process for the 1997 constitution, the “People’s Constitution”, was, for example, very different from previous constitutional processes. “A total of 19,335 candidates stood at the first stage of elections of 76 members of the Constitution Drafting Assembly (CDA) membership. The CDA set up a publicity committee which claimed 600,000 people gave their opinions on the initial proposals, while over 120,000 attended public hearings on the final proposals and 87,000 responded by questionnaire” (UNDP, 2003: 36). Public participation was taken into account, not only in the creation of the new constitution, but also in its content. The Constitution enshrines many rights, which are important for community empowerment. For instance, the rights of communities with respect to natural resources and the environment are stated as follows:

¹⁰ The 1997 Constitution demanded further change. The Determining Plans and Process of Decentralization to Local Government Organization Act, B.E.2542 was later passed in 1999. The SAOs are now elective bodies with considerable powers and budgets. This decentralisation promisingly contributes to community empowerment.

Section 56: The right of a person to give to the State and communities participation in the preservation and exploitation of natural resources and biological diversity and in the protection, promotion and preservation of the quality of the environment for usual and consistent survival in the environment which is not hazardous to his or her health and sanitary condition, welfare or quality of life, shall be protected, as provided by law.

Any project or activity which may seriously affect the quality of the environment shall not be permitted, unless its impacts on the quality of the environment have been studied and evaluated and opinions of an independent organization, consisting of representatives from private environmental organizations and from higher education institutions providing studies in the environmental field, have been obtained prior to the operation of such project or activity, as provided by law.

The right of a person to sue a State agency, State enterprise, local government organization or other State authority to perform the duties as provided by law under paragraph one and paragraph two shall be protected.

(Office of the Council of State, 1997)

Likewise, the Eighth Plan (1997-2001) was a remarkable turn from its predecessors. For one, the National Economic and Social Development Board (NESDB), which is the national policy-drafting agency in Thailand, absorbed a public participation approach into its policy-making process. It “held nine regional seminars inviting local NGO leaders, development workers, academics, businessmen, community leaders, monks, and bureaucrats. The results were then summarized in a tenth national seminar, compiled by the NGO side into a People’s Development Plan, and refined by technocrats into the final version” (UNDP, 2003: 38). Also, its content was shifted from a growth orientation towards a more people-centred approach to development, one promoting self-reliance in local communities.

The Ninth Plan (2002-2006) was also prepared after a process of national consultation. The Plan aimed to combat the impacts of the crisis in the short-term,

and ultimately to alleviate poverty in the nation. Community empowerment became an explicit theme of the Ninth Plan, particularly in proposals on poverty alleviation, natural resource and environmental management, and sustainable rural development. It stressed the importance of enhancing local communities' capabilities to engage in participatory community planning, to formulate their own strategic development plans based on self-reliance, and to manage their own development projects. It encouraged local communities to take a more significant role in managing local natural resources, exchanging knowledge with development partners, and building networks to preserve their environment. The focus on communities' self-reliance embraced practices such as: reliance on village revolving funds instead of external borrowing; community self-management instead of waiting for government assistance; and strengthening and expanding social networks alongside economic development (NESDB, 2002).

Theorising "Sustainable Livelihoods"

At the global level, the concept of "sustainable livelihoods" has become increasingly important in development debates since the 1990s. Two prominent development scholars, Robert Chambers and Gordon Conway (1992: 4), propose the following working definition of sustainable livelihoods:

a livelihood comprises the capabilities, assets (stores, resources, claims and access) and activities required for a means of living: a livelihood is sustainable which can cope with and recover from stress and shocks, maintain or enhance its capabilities and assets, and provide sustainable livelihood opportunities for the next generation; and which contributes net benefits to other livelihoods at the local and global levels and in the short and long term.

Drawing on this definition, the Institute of Development Studies developed a sustainable rural livelihood framework, as shown in Figure 2.3. The framework shows that the ability to pursue livelihood strategies depends on the combination of resources that people possess. Using an economic metaphor, this approach conceptualizes livelihood resources as different forms of “capital”, which form the basis of productive activities and livelihoods. In this framework, four different types of “capital” are identified: natural capital, economic capital, human capital and social capital.

In this research, I borrow Scoones’ (1998) definitions of the four capitals. Firstly, natural capital refers to the natural resource stocks which provide resource flows and services that are crucial for livelihoods. Secondly, economic capital is basically economic assets, such as cash, credit or debt and savings. Thirdly, human capital refers to skills, knowledge, good health and physical capability which facilitate labour and other livelihood activities. Lastly, social capital is comprised of the networks, social relations and associations “upon which people draw when pursuing different livelihood strategies requiring coordinated actions” (Scoones, 1998: 8).

Identification of the livelihood resources of Ban Khun Samut Chin villagers helps make sense of the different livelihood strategies they rely on, in order to cope with their ecological challenges. This framework is applied in Chapter Four where I categorize the community members into different groups based on their livelihood assets, such as educational attainment, pond ownership, family connections beyond the village, etc.

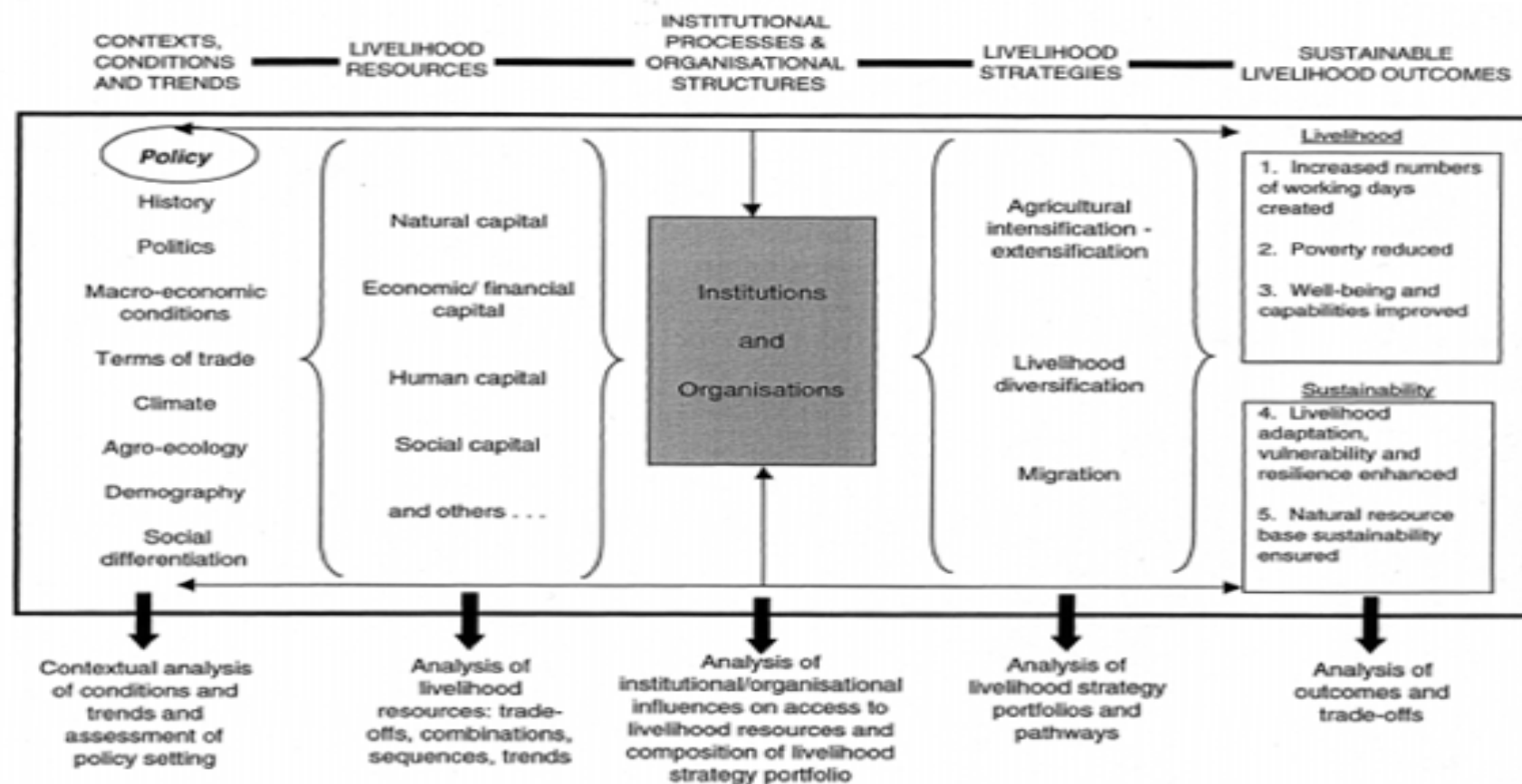


Figure 2.3: Sustainable Rural Livelihood Framework¹¹

¹¹ Source: Scoones, 1998: 4

2.4 Social Construction of Environmental Knowledge

This section explores theories concerning production of environmental knowledge.

These theories help dissect discourses and social processes that inform environmental movements. I discuss theories proposed by scholars from various fields, such as sociology, geography and anthropology, all of which explore how environmental knowledge is socially constructed. This constructivist approach does not diminish the existence of environmental problems, but rather investigates the processes by which ecological changes become environmental problems.

John Hannigan, an environmental sociologist, argues that society's readiness to recognise and address "environmental problems" depends upon the "claims-making activities", which take place in the realms of science, mass media and politics. In his book, *Environmental Sociology: A Social Constructionist Perspective*, Hannigan (1995) identifies three key tasks in considering the social construction of environmental problems. The first one is the task of assembling environmental claims, such as naming the problem, distinguishing it from other similar problems, determining the scientific basis of the claim, and determining the party responsible for taking action. This first step, Hannigan claims, often takes place in the realm of science. Second is the task of dissemination of scientific findings, which requires tapping into and influencing existing public concerns. This task demands media legitimacy and coverage. Third is the contestation of an emergent environmental claim within the arena of politics, pushing for action to be taken.

In that same year, a political scientist who is also a committed social constructionist, Maarten Hajer, published *The Politics of Environmental Discourse*. In this book, Hajer (1995) a number of key concepts, such as storylines and discourse-coalitions, which are useful in understanding processes of social construction of environmental problems, both in academic fields, and in broader public processes. Hajer (1995: 64-65) wrote:

Story-lines are devices through which actors are positioned, and through which specific ideas of 'blame' and 'responsibility', and of 'urgency' and 'responsible behaviour' are attributed. Through story-lines actors can be positioned as victims of pollution, as problem solvers, as perpetrators, as top scientists, or as scaremongers.

In terms of the construction of environmental knowledge, storylines play a key role in ordering society into pre-existing structures of 'blame'. Storylines are not confined to any one organization, but can be shared by different actors in disparate settings. Interactions between different actors and various storylines may lead to the formation of broader acceptances of apparent "facts" and perceived "realities", to form what he calls "discourse-coalitions". Discourse-coalitions are defined as "the ensemble of (1) a set of story-lines; (2) the actors who utter these story-lines; and (3) the practices in which this discursive activity is based" (p. 65).

According to Hajer, environmental discourse is inherently fragmented and contradictory. Because there are a variety of motivations for changes in environmental policy, he explains, and a number of different goals that can be accomplished through environmental politics, a diversity of environmental agendas will tend to coexist, as well as a diversity of views and opinions about these agendas.

Sometimes these different views will even be contradictory, offering opposing understandings and explanations.

Demeritt (1998) is another key theorist who has developed an important framework for understanding the roles of political, discursive and scientific processes in the social construction of environmental problems. He notes that environmental problems would be difficult even to imagine without the technical abilities of science. However, the fact that environmental problems are only ever realized as artefacts of scientific representation, does not make their potential threat any less real for us. In other words, the objective world is real and independent of our categorization, but filtered through scientific methods that are socially conditioned. Demeritt concludes that more critical understanding of science and of the politics of its constructions of nature is therefore needed.

Another geographer, Proctor (1998), points out that there are a number of key contemporary epistemological approaches that are in broad agreement with this kind of “softer” form of social constructivism. Neither critical realism nor pragmatism, he explains, promotes an extreme form of social constructivism:

Pragmatists find significance in the realm of the empirical, whereas critical realists seek to identify the structural conditions responsible for particular events. Pragmatists are happier with lower-order truths than critical realists in large part because truths at this level are often more immediately useful. Pragmatists are looking for workable solutions to problems; they are tired of theoretical battles – such as that between relativist and antirealist interpretations of nature – that loom large in higher-order epistemological controversies, and have little inclination to step into the fray. Critical realists, in contrast, place much greater value on correct conceptualization of problems as a necessary first step in solving them, leading them to seek

higher-order, structural truths to help explain the empirical situation of interest.

Proctor (1998: 368)

Proctor concludes that the two approaches are complementary. Making environmental knowledge more biophysically accurate and socially relevant requires analyses of both the scientific inaccuracies and inadequate social framings of existing environmental explanations. Nevertheless, attention to these two dimensions does not therefore imply assurance of a universally more accurate scientific explanation of environmental changes; but rather challenges the pretensions of science to achieve universal accuracy.

Escobar (1998), an anthropologist, also calls attention to constructions of nature and culture, in his examination of the political strategies articulated by environmental movements. He develops the rudiments of a framework for understanding processes of appropriation and conservation of biological diversity within social movements. Escobar argues that biodiversity is a discourse of recent origin, a discourse which has shaped the development of a network of new actors: international organisations, non-governmental organisations, local communities and social movements. Looking specifically at the social movement of black communities in the biodiversity-rich Pacific rainforest region of Colombia, he argues that ecological concerns, including those inspired by the new discourse of biodiversity, have played an important role in shaping cultural politics among these groups.

These various theories about the complex social dynamics involved in the social construction of environmental problems inform the epistemological perspective that I take in my own research in this thesis. Adopting a constructivist approach does not imply that environmental problems in my study area are unreal or imagined. Instead, the approach offers an outlook which pays close attention to how statements about environmental problems have been made, by whom, and with which political impacts. The constructivist theories discussed in this section help provide explanations for the co-existence of the various views on environmental changes that have been offered to community members in Ban Khun Samut Chin through their encounters with external stakeholders, as well as frameworks to assist in the analysis of the roles that these narratives have played in structuring social dynamics and identities in the village.

2.5 Theories of Social Representation, Self-Understanding and Livelihood Strategies in the Face of Disaster

This section reviews theories of social representation and self-understanding at the collective and individual levels, and how they inform livelihood strategies, especially in communities facing severe ecological challenges.

Similar to Escobar's (1998) theories about how constructions of nature inform not only the strategies of environmental movements but local identities and cultural politics, Li's (1996) research in Indonesia demonstrates how conflicts about the distribution of property and resources are articulated through competing

representations of community. She argues that divergent images of community can result from historic struggles over resources. At the policy level, romantic images of communities as sites of consensus and sustainability have opened up opportunities by providing legitimation for alternative development; terms like “community” and “indigenous” have provided a vocabulary for the defence of the rights of local peoples against states. At the practical level, particular representations of community can be used strategically to advance claims and mitigate negative effects for potentially disadvantaged groups. In a later paper, Li (2000) emphasizes that a community’s self-identification, for example, as indigenous, is not an essence, rather it could be considered as “a positioning which draws upon historically sedimented practices, landscapes, and repertoires of meaning, and emerges through particular patterns of engagement and struggle” (Li, 2000: 151). Li’s (1996; 2000) theories of community identity as an articulated positioning for resource mobilization are useful in exploring the Ban Khun Samut Chin community’s struggles to leverage resources in the face of coastal erosion.

Li’s concept of “articulation” is borrowed from Stuart Hall, who is well known for his theory of the politics of representation. Hall defines articulation as a process of “rendering a collective identity, position or set of interests explicit” to an audience, and linking that position towards achieving political ends (Li, 2000: 152). For Hall, articulation

has the considerable advantage of enabling us to think of how specific practices articulated around contradictions which do not all arise in the same way, at the same point, in the same moment, can nevertheless be thought together. The structuralist paradigm thus does – if properly developed – enable us to begin really to conceptualize the specificity of different practices

(analytically distinguished, abstracted out), without losing its grip on the ensemble which they constitute.

(Hall, 1980 cited in Slack, 1996: 123-124)

Thinking about articulation thus becomes a practice of thinking of “difference in complex unity, without becoming a hostage to the privileging of difference as such” (Hall, 1985 cited in Slack, 1996: 124).

Other prominent theorists whose work concerns the politics of representation, which I apply in Chapter Six, are Erving Goffman, Anthony Cohen and Zygmunt Bauman. In his book, *The Presentation of Self in Everyday Life*, Goffman (1956) develops a model of impression management. He argues that individuals try to meet social expectations by managing the impression they have on others. This involves “performing” identities that will have favourable outcomes for them in the context of the social interaction they are in through combinations of concealment, exaggeration, fabrications, etc. Goffman discusses a concept of “team”, which is associated with the processes of articulation of a community to achieve political ends, as follows:

A team, then, may be defined as a set of individuals whose intimate co-operation is required if a given projected definition of the situation is to be maintained. A team is a grouping, but it is a grouping not in relation to a social structure or social organization but rather in relation to an interaction or series of interactions in which the relevant definition of the situation is maintained.

We have seen, and will see further, that if a performance is to be effective it will be likely that the extent and character of the co-operation that makes this possible will be concealed and kept secret. A team, then, has something of the character of a secret society. The audience may appreciate, of course, that all the members of the team are held together by a bond no member of the audience shares. Thus, for example, when customers enter a service establishment, they clearly appreciate that all employees are different from

customers by virtue of this official role. However, the individuals who are on the staff of an establishment are not members of a team by virtue of staff status, but only by virtue of the co-operation which they maintain in order to sustain a given definition of the situation. No effort may be made in many cases to conceal who is on the staff; but they form a secret society, a team, in so far as a secret is kept as to how they are co-operating together to maintain a particular definition of the situation. Teams may be created by individuals to aid the group they are members of, but in aiding themselves and their group in this dramaturgical way, they are acting as a team, not a group.

(Goffman, 1956: 64-65)

Goffman's work offers an insight into how the collective presentations of a group of individuals serve as political strategies to achieve their individual as well as shared goals. The community is indeed socially constructed.

Yet, the appearance of unity in a community, especially in a rather remote community, is often mistaken for its reality. Cohen (1985) explains in his book, *Symbolic Construction of Community*, that this misinterpretation may possibly result from both pragmatic and rhetorical expressions of egalitarianism. Pragmatically, people behave as if they are alike for a persistent assertion of one's difference might turn into an intolerable irritant. Also, in term of rhetorical expression, Cohen describes that "when a group of people engages with some other, it has to simplify its message down to a form and generality with which each of the members can identify their personal interests. ... Thus, when a position is stated on behalf of the community – 'we want ...' 'we think ...' – it implies a generality of view tantamount to the expression of sameness, of equality" (ibid: 35). The formulation of such positions for communication to outsiders to some extent can also reinforce the community's sense of solidarity. In his book, Cohen also suggests that the

inconsistency between interactions within the community and between the community and outsiders can be understood in terms of what he calls the “complementary opposition” phenomenon: within a community, an individual’s sense of self derives from contrasting him or herself to others; however, in a broader sense, self-perception also develops from juxtaposition of his or her identity as a member of the community in opposition to the otherness of outsiders.

This phenomenon is also acknowledged by Zygmunt Bauman. Bauman (2000) points out that while the term ‘we’ is employed in the patriotic sense to refer to ‘people like us’ and ‘they’ means ‘people different from us’, this does not mean that ‘we’ are identical in every respect: “there are differences between ‘us’ alongside common features, but the similarities dwarf, defuse and neutralize their impact. The aspect in which we are all alike is decidedly more significant and consequential than everything that sets us apart from one another; significant enough to outweigh the impact of the differences when it comes to taking a stand” (Bauman, 2000: 176).

In addition to these theories concerning the construction of community identity discussed above, theories of how culture and identity influence individual action are also employed in my analysis in Chapter Six. The two main theorists that influence my work are Ann Swidler and Mark Carey.

In her book *Talk of Love: How Culture Matters*, Swidler sets out to explore how culture operates to shape people’s understandings of love and to inform their life strategies and choices. Her study is based largely on interviews with middle-class

Americans in and around San Jose, California in the early 1980s. The book explores how individuals use culture as a tool kit, or a “repertoire” of styles, skills and habits, selectively choosing useful strategies or elements to fit particular immediate needs or circumstances.

Swidler (2001) refutes the assumption that culture shapes people by shaping their ultimate values. She points out that:

If deep, enduring values were dominant factors in individual behaviour, we should expect people in changed circumstance to continue to pursue traditional values, perhaps using new methods to achieve their goals. In fact, we observe precisely the opposite. People change their ends relatively easily in new circumstances ... What tends to have more continuity is the style or the set of skills and capacities with which people seek whatever objectives they choose.

(Swidler, 2001: 80)

Indeed, as Joas explains, “only when we recognise that certain means are available to us do we discover goals which had not occurred to us before” (1996 cited in Swidler, 2001: 81). Swidler argues that culture influences action not by providing the ends actors pursue but by ingraining, reinforcing and refining the patterns into which action is routinely organised. She calls these patterns “strategies of action”.

According to Swidler, “strategies of action are general solutions to the problem of how to organise action over time, rather than specific ways of attaining particular ends” (ibid: 83). Individuals usually possess more than one such strategy. Not all of them are consistent with each other; as a matter of fact, often the demands of some strategies of action contradict the demands of others. People draw on multiple, often conflicting, cultural capacities and worldviews to justify varied actions. Swidler

emphasizes that “it may be much less important for people to have a coherent worldview than to have enough different beliefs to adapt to most contingencies without losing the conviction that somehow the world makes sense” (Swidler, 2001: 75). Swidler examines how the middle-class Americans employ various different understandings of love in interpreting their own situations and beliefs. Swidler’s theories have proven particularly useful in understanding Ban Khun Samut Chin villagers’ sophisticated, and oftentimes contradictory, beliefs and hopes about their future, and their complicated choices of specific livelihood strategies in adapting to their rapidly changing ecological surroundings.

Mark Carey’s book, *In the Shadow of Melting Glaciers: Climate Change and Andean Society* (Carey, 2010), challenges a common belief that it is the poor who are usually stuck in disaster-prone areas, while the better off are freer to move away from such threats. Carey’s book, however, illustrates that sometimes relatively privileged groups might choose to remain in hazardous zones so as to retain the symbolic dimensions of their social and territorial dominance.

Carey studied communities in the Santa River basin, an area north of Lima which drains Peru’s Cordillera Blanca range into the Pacific Ocean. In the late-nineteenth century, warmer temperatures caused glaciers to retreat, resulting in a series of floods and avalanches between 1941 and 1970, which destroyed various towns and thousands of lives. Following the tragedies, Peruvian state officials called on scientists and engineers to assess the situation to control the consequences of further melting. However, their efforts to relocate people from hazard zones have

failed. Studying responses to the flooding between the 1940s and 1990s, Carey found that local residents, or more generally the urban middle and upper classes, resisted government efforts to relocate their towns. They insisted on rebuilding them again, just as they had been, consciously choosing to remain in this hazardous environment. This was, in part, Carey argues, an effort to retain their social status based on the strategic control of resources and prestigious localities in their cities.

Furthermore, Carey observes that this glacial retreat paradoxically increased both the appeal and the accessibility of the Cordillera Blanca for adventurous tourists. This observation led him to investigate “the use of catastrophe to promote and empower a range of economic development interests ... private or state-owned, planned or unintentional, neoliberal or otherwise”; this, Carey terms “disaster economics” (ibid: 12). Elsewhere, curiosity about the outcome of disasters and desire to help local people also helped promote tourism of disaster sites, such as post-Tsunami Phuket, Thailand, post-Katrina New Orleans, USA, and post-Tsunami Fukushima, Japan (Rittichainuwat, 2016; Pezzullo, 2009; Nagai, 2012). Carey’s (2010) findings are interestingly quite similar to some of the phenomena I witnessed in Ban Khun Samut Chin community; hence his framework has proven particularly helpful in investigating this case.

I engage with the theories reviewed in this section in my analysis in Chapter Six, where I aim to comprehend Ban Khun Samut Chin community’s complicated processes of self-representation, and the beliefs and hopes, and preferred livelihood strategies of villagers, both at the collective as well as individual levels.

Chapter 3

Methodological Choices and Challenges

This study explores the everyday life experiences and strategies of Ban Khun Samut Chin community in response to coastal erosion. One of my main objectives is to investigate the process by which the local environmental crisis led to potential empowerment of the village community through their interactions with a variety of different external stakeholders. Also, I will explore how different groups of people in the community have responded and adapted to their changing livelihood opportunities. The ultimate goal of the research is to provide suggestions for development practitioners, working with local communities, in rapidly changing ecological landscapes.

Given that the research attempted to investigate a social phenomenon within its real-life context, the case study approach was adopted as the overarching research method. The data was mainly gathered through participant observation, which provided insights into the changing livelihood strategies of research subjects, as well as significant supporting work, with documentary evidence, regarding the history of the study area, and recent interactions of the community with various outside organisations and influences.

In this chapter, I first justify my selection of the case study approach, and then the particular selection of the case of the Ban Khun Samut Chin community. Secondly, I

explain the rationale behind my data collecting techniques. Thirdly, I discuss challenges and ethical dilemmas I encountered while conducting this research.

3.1 Case Study Research

Determining an appropriate research approach is an important element in a research study. Researchers may choose to observe a large number of instances of a phenomenon superficially, or only one specifically, or a handful of instances of a phenomenon more intensively. Each instance is usually called a case. Hence, an intensive approach is also known as a case study (Swanborn, 2010). Swanborn defines a case study as the study of a social phenomenon that is:

- Carried out within the boundaries of one, or a few, social system(s);
- Conducted in the case's natural setting;
- Focused on process-tracing;
- Guided by an initially broad research question; and
- Based on several data sources, such as documents, interviews with informants and participatory observation.

According to Baxter and Jack (2008), a case study approach is generally based on a constructivist paradigm, which recognises the importance of the subjective human creation of meaning. This research approach, when it involves interviews or ethnographic observation, can offer a close collaboration between the researcher and the participants, enabling participants to tell their stories. Through these stories,

the participants are able to describe their views of reality, which, in turn, enables the researcher to gain an insight into the participants' complicated actions.

3.1.1 Rationale for Selection of the Case Study Method

According to Yin (2003), a case study approach should be considered when: (i) the focus of the study is to answer “how” and “why” questions; (ii) the researcher(s) cannot manipulate the behaviour of those involved in the study; and (iii) the researcher(s) want to investigate a phenomena within its real life context. This is precisely why employing the case study approach was advantageous in this research. First and foremost, the choice of a case study mode of analysis was driven by my own broader research question. The main objective of this research was to explore how coastal communities severely affected by coastal erosion managed to understand their situation, adapt their livelihoods, and assess long-term risk and appropriate interventions. In broader terms, I was interested to explore how communities facing rapidly shifting and deteriorating ecological conditions were empowered from outside interventions, and dealt with conflicting frameworks of understanding, in order to change their livelihoods and collectively adjust to uncertainty. It would not be possible to investigate such social phenomenon without focussing intensively on social and ecological processes within a single community. The case study approach offers advantages in work of an exploratory nature, as in this research. It allows for the generation of insights that might not be apparent using a thinner set of empirical data across a larger number of cases. Case studies offer empirical richness in their relatively thick description of events, which can

facilitate better understanding of the intentions, the reasoning capabilities, and the information-processing procedures of the study subjects (Gerring, 2007). Also, my choice of such an intensive approach was driven by its compatibility with the philosophical positioning of my research -- constructivism -- as described in Chapter Two.

3.1.2 Case Selection

In large-sample research, case selection is usually carried out by some form of randomization. However, random sampling is problematic as a selection method in a case study research where the sample is small. My case, Ban Khun Samut Chin community, was chosen from a group of coastal communities in Thailand, all severely affected by coastal erosion, because this community is a special case that had received significant national attention.

There are several coastal communities in Thailand affected by coastal erosion. Ban Khun Samut Chin, however, is located in a coastal erosion hot spot where, by 2007, erosion and subsidence had demolished approximately 12.5 kilometres of the village coast, bringing the coastline inland at a rate of more than 25 metres per year (ONEP, 2007). Local impacts have been considerable. The community school, the health station and households are continuously moved inland. Over the past two and half decades, the community school has been moved four times, the village chief has moved her house seven times, and many community members have simply chosen to leave the village. Those villagers who remained in the village have rallied their

personal savings to save the community temple, *Wat Khun Samut Taraward*, which had once been far away from the coastline, but now is half-submerged below sea level. They also have done fundraising to build a breakwater, in order to save their community, which by the time of my study only consisted of a strip of land one kilometre wide. The community's ecology has been changing at such a fast pace that local livelihood opportunities may not even exist in the next ten years. Although the future of the village seems bleak, most residents consciously choose to remain in their insecure landscape, and rarely consider alternative plans for relocation. That intrigued me so much that I wanted to understand the reasons behind their persistence.

Also, recent village history has involved fruitful interactions between the community and various outside social groups, namely academics, media outlets, popular organisations and local government actors, who had come into contact with the community because of its rapid ecological change. Focusing on this one particular case would allow me to understand the shifting processes of a community's environmental knowledge production and its self-understanding and self-presentation over time, through the course of its interactions with different groups of social actors. The study would shed some light on the complicated sets of influences on the community from these external stakeholders. Also, it would provide insight into any conflicting community or individual strategies in the readjustment of the villagers' livelihoods to the environmental changes they were facing. I selected Ban Khun Samut Chin as my case study because of these interesting characteristics.

My case could be considered what Stake (1995) terms an “intrinsic” case. Stake emphasizes that the number and type of case studies should depend upon the purpose of the inquiry. He proposes three types of case study design. First is the “intrinsic” case study. This involves exploration of one particular case for its own sake. There is no expectation that results will necessarily have implications for other case studies. Another type, he argues, is the “instrumental” case, in which the case is selected to provide insights into a particular phenomenon. This method is appropriate, he argues, when there is likely to be a set of predetermined criteria being explored and tested through the case study. Finally, case studies become “collective” when a number of instrumental cases are used to make comparisons in relation to a particular phenomenon. I chose Ban Khun Samut Chin as my case study because I had an interest in the case itself. To some significant extent, one of my main intentions was to gain a better understanding of the community. Ban Khun Samut Chin community was selected, not primarily because it represented phenomena shared with other cases, or because it illustrated a more general problems, but because, in all its particularity, the community itself was of real interest.

3.2 Data Collection and Analysis

In total, I spent about a month and half with the community people. I had my first visit on 23 March 2011 to introduce myself to the village chief and the Chief Executive of the Laem Fa Pha Sub-District Administrative Organisation, who acted as

the community gatekeepers. During this first visit, I made my initial introduction to the area, and found accommodation for my planned fieldwork stay. The lodging I found was a bungalow owned by the village chief's son, which was the only paid accommodation available in the community at the time. A month later, I spent the second half of the month during 15-30 April 2011 in the community, conducting a preliminary survey of the community and familiarizing myself with members of the community. My last visit to the community which was the longest stretch of my fieldwork; from 21 May 2011 to 26 June 2011, I carried out participant observations and collected key documents from Ban Khun Samut Chin.

3.2.1 Documentary Research

Documentary analysis was primarily employed in this research project to understand the evolution of the environmental challenges facing Ban Khun Samut Chin, as well as the responses of the community to those. As Ritchie & Lewis (2003) explain, documentary analysis, which involves the study of existing documents, can be useful to establish basic facts regarding the recent history of a particular case, as well as to shed light on deeper meanings. The documents that I used in this study included public documents, like archival and statistical data found in various administrative sources at the national, provincial and local levels, academic papers and media reports; procedural documents like minutes of meetings and formal letters, and personal documents like photographs. With regards to existing statistical data, and other secondary sources, some data were available online. Some required more traditional and labour intensive methods of contacting agencies and organisations

for hard copy of their documents. Other information which had been unanticipated, such as a collection of TV documentaries, formal letters from the community to the King, numerous government agencies, businesses and philanthropic organisations and a progress report of the environmental movement network, of which the community was a member, were given to me by the village chief during my field visit to the community.

After my first visit, I became aware that the community had been exposed to several groups of researchers and media. The village chief held collections of research papers, newspapers, and TV documentaries, in form of DVDs, regarding the community's natural disaster. These scholarly and popular publications, alongside other products, became very good secondary data sources for my study.

From these secondary data sources, I had learned about the biophysical and socio-economic background of the community, which is mainly described in Chapters Two and Four. The previous studies also provided the timeline of direct contact from outsiders, which helped mark for me the turning point, in the community, when there had been an onset of more sustained contact with external stakeholders in 2006, as detailed in Chapter Five. The study of the Chulalongkorn scientists who aimed to help to construct a breakwater dam, so as to mitigate the effects of coastal erosion in the village, had attracted media, other groups of researchers and tourists to visit the Ban Khun Samut Chin community. The documents created by those social actors who visited the community showed how its changing environment and livelihood had been perceived by different social groups. These, in turn, contributed

to the community members' knowledge of their environmental change and self-reflection. Such documents were disseminated by the village head, and showed to some extent, her approval of how the community would like to be presented. The information I had learned from documental analysis was however crosschecked by participant observation.

3.2.2 Participant Observation

The original research plan for my third visit to Khun Samut Chin village was to conduct in-depth interviews with community members from different socio-economic groups. However, I soon realized how difficult it would be to have formal interviews with ordinary members of the community. First and foremost, this community had been a study area for so many research groups that the villagers had become exhausted. The local leaders had learnt to handle researchers, by telling them what they expected to hear and in ways that sometimes favoured their own agendas. For instance, one informant told me that once he had been asked to be a field assistant to conduct a household survey for a group of researchers. He simply filled out all the questionnaires himself and earned the pay. He explained he did not really care as the researchers did not seem to care enough to conduct their own survey. On one occasion, I witnessed this same informant, and a friend, suggesting answers to other villagers' while they were doing a questionnaire for another group of researchers. I, myself, was also recommended the places that I should visit, and the potential informants whom I should talk to. Ordinary villagers, however, were often reluctant to talk to researchers as they felt the researchers did not contribute

anything to their community, but only had interest in their own work. I undeniably seemed to be one of those people. A couple of local activists mentioned that they wondered why any research team who were new to the area did not use relevant information from the previous teams. The villagers were weary of repeating the same story over and over again and still had not witnessed their hope, of having the Chulalongkorn breakwater built along the village coast, being fulfilled.

Secondly, the villagers' profession of coastal fishery, made it hard for me to set a time for an interview. Moreover, questions concerning politics were very sensitive in Thailand, particularly in this area, during the period of this study, which was after the local elections and just before the national election. Some people became uncomfortable as soon as I asked them whether I could record our talk. Some became uncomfortable as soon as I started taking notes while chatting with them, instead of fully engaging in the conversation.

As a result of these difficulties, I decided to employ participant observation instead. The use of participant observation as a data-collecting tool was the foundation of the ethnographic approach I relied on in this research. The technique allowed the investigation of social phenomena in the community's natural settings (Hughes & Sharrock, 2007). Participant observation helped me not just to look at things done by individuals, as in-depth interview would have allowed, but also to pay attention to things done amongst and between individuals. Through observation, I could discover the norms and values of the Ban Khun Samut Chin community, which were often evident in interactions between people and communications with the external

world. This insight could not have been obtained solely by interviews (Simons, 2009).

I tried to be constantly aware of what was going on around me as I went about my day-to-day business, and was careful to keep daily field notes of the things that I had seen and conversations that I had witnessed. Nevertheless, there were some limitations. I could only spend time with those who were comfortable in my presence. For the most part, this meant that I spent more time with the villagers who had close relationships with the village chief or with her family and/or involved in the local activism. Some of these villagers had been asked by the chief to help me; others were generally friendly. I spent most of my time in the village socialising with those living in the central area. The village chief's son's house, where I was staying, was located in that zone. Also, most of the visitors to the village would stop by and have a conversation at her family's grocery shop. Many villagers would call by there on their way out of to do business, or back home and sometimes they just came round to meet others. Often I would schedule time to meet up with some of them for visits and further discussion or else I would simply follow someone to their house. Some days however I would stroll around the central and eastern parts of the village and talked to villagers that I met along the way. However, I did not feel safe enough to take a walk to the western part of the village on my own. The bridge to the West was wobbling, the footpath was overgrown, and a few villagers had seen a cobra in that area. Therefore, I visited the west part only a couple of times, with a villager who walked around the village to sell desserts. Sometimes I accompanied some villagers to the local temple or the local shrines in order to meet other

villagers. Sometimes I was invited to a birthday party, a house warming ceremony, an ordination service or a funeral. Those were the village meeting places where I heard a lot of gossip about events in the village.

In addition, I would make special arrangements to observe something of interest like seminars organised by other research team and government agencies, meetings with support groups, patrols of the village coast, and visits from different groups of outsiders. Some of the major activities which I attended with the community activists are listed below:

1. 28-30 May 2011 – participation in the “Monitoring and Evaluation of Coastal Management Plan” seminar organised by the Chulalongkorn research team for the Ban Khun Samut Chin community in Rayong province.
2. 6 June 2011 – attendance at the “Central Thailand Mangrove Conservation Network” meeting organised by a regional office of the Department of Marine and Coastal Resources in Petchaburi province.
3. 8 June 2011 – attendance at the “Voice of People Changing Thailand” broadcast held by the Thai Public Broadcasting Service (ThaiPBS) in Nonthaburi province. This was a televised meeting between groups of activists in Central Thailand and politicians, before the upcoming national election on 3 July 2011.
4. 11-12 June 2011 – participation in the “Upper Gulf of Thailand Network” meeting organised by a regional office of the Department of Marine and Coastal Resources and an NGO in Samut Songkram province. This network

also played a major role in the community's adaptation to coastal erosion, which will be discussed in Chapter Five.

5. 19 June 2011 – attendance at a meeting on disaster preparation planning organised and held at the Laem Fa Pha Sub-District Administrative Organisation.

The data that I collected through observation, which I recorded in my field notes, helped me to understand not only the spoken, but also unspoken interactions. This added considerably to my understanding of the complicated and overlapping, or sometimes even inconsistent, goals, ideologies and livelihood strategies existing in the community. However, the acquisition of information from local 'gossip' also meant that the information I had about people's lives was not necessarily filtered by those involved, and that the perspectives I accessed were inevitably influenced by the personal agendas of my informants.

3.2.3 Follow-Up Conversations

A number of months after completing my fieldwork visits, I conducted some telephone conversations with the villagers to follow up on some information which was in doubt. These were done within a year of the fieldwork visits, while I was trying to make sense of the data I had collected. The participants for my telephone interviews were those villagers with whom I had built strong relationships during the fieldwork. I had asked them if I might give them a call some time later for further

information, and they had agreed to help me. It was very useful to maintain continuity with key informants over a longer period of time.

3.3 Challenges and Dilemmas

As scientists whose subjects are human beings, sociologists share with many other researchers in other fields the duty to treat their research subjects in an ethical way. In social science, risks for participants involve “the invasion of privacy, loss of confidentiality, psychological trauma, indirect physical harm, embarrassment, stigma and group stereotyping” (Oakes, 2002: 449). In this section, I address issues of subjectivity and the ethical dilemmas that I encountered while conducting this research.

3.3.1 Representation

From a positivist perspective, my research has undoubtedly been affected by subjectivity. Yet, it should be noted that subjectivity is the very nature of qualitative inquiry like this research projects. Simons (2009: 163) points out that “subjectivity is not something we can avoid whatever methods we adopt, though it is more visible in qualitative inquiry, where people, including the researcher, are an inherent part of the case.” The fact that I rented a bungalow from the village chief’s family, and had her family as my host family, would in some way affect other villagers’ perspectives on me, and shape their behaviour in my presence. Likewise, I too of course am a social being. As I was the main instrument of the data collecting process, my

worldview, preferences and values, unavoidably influenced how I observed and interacted with people in the field. The analyses of my fieldwork were based on my own interpretation of the experiences of others, which might not always have been the same as their own points of view. Drawing from Garfinkel's work (1967), no matter how closely a researcher sticks to accepted sociological methods to capture the reality of complex social phenomenon, the data collected for analysis is very much the researcher's imaginative reconstructions of that phenomenon. The researcher should, therefore, recognise the limitations of any chosen method, but do their best to be systematic and as reflexive as possible. That was my aspiration for data collection and analysis in this study. Instead of trying to represent the phenomena under study in the most transparent and neutral way possible, which is not achievable in any event, I adopted a "reflexive" stance, aiming to identify my own values and preferences which produced my own reactions and interpretations (Mauthner & Doucet, 2003).

3.3.2 Anonymisation

Using pseudonyms is a common practice in research reporting in order to anonymise research subjects and offer some protection of their privacy. However, full anonymisation was not possible to adopt in this research. For one, my study area was chosen for its unique and extreme characteristics; this made it impossible to successfully anonymise the community studied. The readers could have guessed which community it was, even if I had used a pseudonym for the name of the community. Similarly, the study involved high-profile individuals, such as the village

chief and her son, who proved difficult to anonymise. As a matter of fact, anonymity is a complex issue. Simons (2009: 107) points out that it is “not simply a case of anonymise or not. It depends upon who the anonymisation or non-anonymisation serves, style of reporting, and reception by readers of our reports.”

I decided to anonymise the majority of villagers in writing up this case study. As for the community leaders and government agencies or research organisations which played a key role in the community, I sometimes identified them by name, but at other times, I talked about them in more general terms, rather than naming them explicitly, especially when sensitive issues were at stake. The fact that some villagers did not wish to be audio-recorded, or clearly felt uneasy once I started taking notes when we were talking, indicated that they were uncomfortable being identified with the information that they were providing. Knowing they were to be identified would almost certainly have restricted what they would be willing to say to me. They shared their thoughts and feelings with me because they trusted me. Revealing their identities would have betrayed their trust. In the worst-case scenario, such information may have gotten them into trouble with the community leaders, which in turn could have affected their livelihoods. Even using pseudonyms for individual villagers could have been risky, as they could have easily been identified in such a small, close-knit community. In writing about individual villagers, I therefore often identified them by naming the different socio-economic groups to which they belonged. In contrast, the community leaders, and the government agencies and research organisations I discuss have not been anonymised most of the time, as they were publicly accountable. However, some of the information I was told could have

had negative effects on the community's relationship with their external stakeholders. Similarly, community leaders or the heads of organisations sometimes shared information with me in confidence, because they trusted me enough to share their individual thoughts and feelings. It seemed unnecessary, and even unfair, to name them in these particular situations.

3.3.3 Ethical Concerns about Exploitation

One of the awkward questions I was often asked by research subjects was how my research could possibly benefit them. Due to its uniqueness, Ban Khun Samut Chin community had already been visited by quite a number of researchers. Some community leaders saw these visits as an opportunity to make their problems known to the public, and so increase the likelihood that their community might receive outside help. Some villagers were tired and had lost interest in taking part in any research, as they could not foresee any direct benefit. I was never able to satisfactorily answer the question of who directly benefitted, in my responses to the community members.

My ultimate goal with this research has been to provide suggestions for development practitioners dealing with local communities, like this one. The primary potential benefits of this study would therefore be for the advancement of knowledge for society at large. Yet, it seemed to offer no direct benefit to my participants themselves. For that reason, I was at first reluctant to urge the villagers

to engage in my research. For a long time in fact, I felt guilty that I might be taking advantage of my participants.

Not until later when I started making sense of the data which I had gathered, did I come to the realisation that those who took part in my research actually benefited from their participation. Participating in a research project is a learning process both for the researchers and for the research subjects alike. This is further explored in Chapter Five when I discuss the impact of the Chulalongkorn research team on the community. The villagers were not passive; they do have agency. They learn every time they have opportunities to discuss the bigger picture with new outsiders. Such discussions indeed provided the villagers a moment of reflexivity.

Through their experiences with several research groups, they had learnt how to make use of researchers. As a result of their interactions with various external stakeholders, including researchers, they had become aware of how to best represent themselves in order to attract the attention of the general public for their own benefit. This will be further described in Chapter Six.

From my impression, the village chief and her family had become quite savvy in dealing with visitors, especially researchers and the media. For example, the village chief suggested that I should plan my stay during the Thai New Year in mid-April so that I could witness the community's communal New Year celebrations. Her husband also asked a relative of his, a local high school girl, to accompany me for a walk around the village. The girl clearly was not keen to accompany me, unless I

agreed to pay for her time. I told her that I did not have a budget for such payments and that I was comfortable to be on my own. Subsequently, the village chief asked her employee's son to accompany me instead. Also, if I went out on my own and was gone for too long, she would phone other villagers asking whether I was with them. The village chief and her son would recommend with whom I should have a conversation. When there was a special occasion in the village, like the Khlong Mon spirit worshipping ceremony, holy days at the village temple, or the birthday party of a villager, they would urge me to attend. When there was an interesting visitor, such as media representatives, local government officers, or the businessman who was in dispute with villagers over the sinking land, I would be invited to join them in the welcoming team. When they were attending any meeting or seminar elsewhere, such as the "Monitoring and Evaluation of Coastal Management Plan" seminar organised by the Chulalongkorn research team, the "Upper Gulf of Thailand Network" meeting held by a regional office of the Department of Marine and Coastal Resources and an NGO, or a meeting on disaster preparation planning by the Laem Fa Pha Sub-District Administrative Organisation and so forth, I would be invited to join the troupe of village representatives.

The local leaders had learned what researchers wanted to know and experience; they thus guided us to such knowledge and experiences, but of course under their own choice and supervision. Far from being just exploited as research subjects, they, too, had learned to make the most of researchers.

Moreover, I have reason to hope that my research could help provoke further discussion about the struggles of Ban Khun Samut Chin community against coastal erosion among my readers, therefore keeping the issue alive. Indeed, Mesny (2014: 167) points out that “effects of social science knowledge are often indirect, subtle, and even unconscious. Lay people do not label some of their knowledge about society sociological knowledge, but part of this knowledge nevertheless comes from sociological research.” This realisation has comforted me; the impact of the knowledge derived from this research on society may be invisible and long term but the process of conducting the research actually benefitted those directly involving in the research.

Chapter 4

The Community

This chapter presents the exploration of livelihood of the study area using Scoones' (1998) sustainable livelihood framework as described in Chapter Two. The chapter starts with the livelihood context of the community, including its location, historical background, population, transportation and communication. Then, I will look into its four main livelihood resources, namely natural, economic, human and social capitals, which are essential for the pursuit of any livelihood strategy (Scoones, 1998). These livelihood resources lay out possible parameters for environmental adaptation of the Ban Khun Samut Chin community in order to set up the analyses for Chapter Six. An understanding of these could help explain the underlying reasons for livelihood strategies the community members tend to rely on in coping with their rapidly changing landscapes.

4.1. Livelihood Context

4.1.1 Location and Historical Background

My study area, the village of Ban Khun Samut Chin, is located in the Samut Prakan Province of Thailand. The province is part of the greater Bangkok metropolitan area, just south of Bangkok, along the Gulf of Thailand. The Samut Prakan Province covers six districts, 50 sub-districts (or "*tambons*"), and 396 villages, located on either side of the Chao Phraya River. The districts along the east side of the river are more

urban, including industrial factories. The districts along the west side of the river are more rural, consisting mostly of small agricultural villages, rice and prawn fields, and mangrove forests. Ban Khun Samut Chin is situated on the west side of the river, within sub-district of Laem Fa Pha, which lies at the mouth of the Chao Phraya River.



Figure 4.1: Map of Thailand Highlighting Samut Prakan Province¹²

¹² Source:
https://commons.wikimedia.org/wiki/File:Thailand_Samut_Prakan_locator_map.svg

The major problem to nail down the history of this region is the lack of modern maps in Thailand before the adoption of Western astronomy and geography in the 1830s (Winichakul, 1994). The pre-modern political sphere in Thailand could be mapped only by existing power relationships as opposed to territorial integrity of places and distances on the earth's surface. In part for this reason, pre-modern maps of localities and routes in Thailand, including those of my study area, were rather rare. Yet, oral history passed down through the generations tells the story of a new land, extending from the mainland over time. The processes of sedimentation from the Chao Phraya River built up the shoreline along the Gulf of Thailand, and formed a new delta in the mouth of the river, which eventually becomes part of that new shoreline.

The district of Phra Samut Chedi, for example, was named after the Temple of Phra Samut Chedi. The temple was built between 1827 and 1828 on what was, at that time, an island in the Chao Phraya River. The temple is today located near the shore along the west side of the river, though it is still known by its more popular name of *Phra Chedi Klang Nam*, which means "Pagoda in the Middle of the Water".

The history of the sub-district can be traced back to around a century ago, during the reign of King Rama V (1868-1910). In those days, the area that now makes up Laem Fa Pha Sub-District was recognised as a new land, naturally extending through processes of sedimentation from the mainland. His Majesty King Rama V ordered the building of a fortress in 1893, the *Phra Chulachomklao* Fortress, to protect the

kingdom from the invasion by enemies coming from across the sea. Today, the total area of the sub-district is approximately 50 square kilometres. It is a delta plain including large areas of coastal mangrove forest formed by river sediments. It is criss-crossed by a number of canals, where the local residents have settled their dwellings, and thus water transportation accounts for more than half of the total means of transportation.

However what was once a land of defence, Laem Fa Pha has become, a hundred years later, a disaster zone, as this once new land is now being reclaimed once again by the sea. Figures 4.2 and 4.3 below are a map and a satellite picture of Laem Fa Pha sub-district boundary developed by the Laem Fa Pha Sub-District Administrative Organisation. The figures also show how far the land has been eroded from 1952 to 2002.

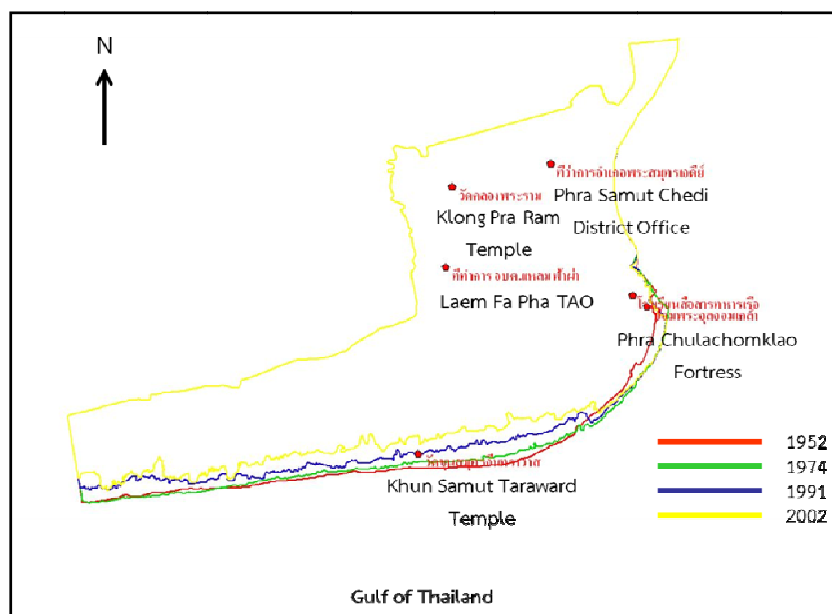


Figure 4.3: Boundary of Laem Fa Pha Sub-District from 1952 to 2002¹⁴



Figure 4.4: Satellite View of Laem Fa Pha Sub-District Coastal Boundary from 1952 to 2002¹⁵

¹⁴ Source: Laem Fa Pha Sub-District Administrative Organisation

¹⁵ Source: Laem Fa Pha Sub-District Administrative Organisation

What is today the community “Ban Khun Samut Chin” was first settled over two hundred years ago on this delta plain. As one documentary television program about the village, *Suwannabhumi Station*, recounts, a small community called Ban Khun Samut Chin first appeared on a map surveyed in 1812 (Karunanon, 2009).¹⁶ The name of the village, “Ban Khun Samut Chin” means, literally “village of the Chinese on the big sea”. There is no clear evidence when Ban Khun Samut Chin came into existence, but the villagers have described themselves as the children of Chinese merchants who sailed from China on a traditional junk -- a Chinese flat-bottom ship with a high poop and battened sails -- to trade with Siam, the former name of Thailand.

The Chinese merchants were forced to disembark from their ships at the mouth of the Chao Phraya River before entering the capital. Some, amazed by the rich marine life along the mouth of the river, decided to settle in the area, starting a new life as coastal fishermen. Those early settlers became the ancestors of the villagers.

Evidences of this early settlement, Ancient shipwrecks, porcelain jars, as well as Chinese and Thai coins, have been discovered in the area. Many of which have been kept at the village museum. This richness is however threatened by the rate of coastal erosion of more than 25 metres a year (Jarupongsakul, 2008).

¹⁶ This was one of several TV programmes disseminated by the village chief, in form of DVDs, to visitors in order to promote the community.

4.1.2 Population

The total population within the administrative area of the Laem Fa Pha Sub-District Administrative Organisation (SAO) in 2011 was 4,915, 2,640 of which were male and 2,275 were female. The number of households was 1,616. The average population density was 100 persons/km². From an interview with the Vice-Chairperson of the Laem Fa Pha SAO, people in this area possess similar historical background and customs known as “Tai-Klang” or central Thai. Indeed, they are generally relatives, as can be identified by their surnames; there is not a great variety of surnames in the area.¹⁷ Also, almost all of the residents are Buddhist.

**Table 4.1: Population Distribution of Ban Khun Samut Chin
by Sex and Age Groups¹⁸**

Population Distribution	Frequency	%
Average number of household members	4.24	
Sex		
Male	136	48.9
Female	142	51.1
Age Groups		
Children (< 15 years)	58	21.0
15-30 years	74	26.8
30-59 years	99	35.9
Senior Citizens (> 60 years)	45	16.3
Total	276	100.00

¹⁷ In Thailand, it is rather uncommon for people who are non-relatives to have the same surname.

¹⁸ College of Population Studies, 2011: 8

Most of these populations were in the work-force age, 15-59 years old, which was around sixty-three percentage of the total population in the community. Around sixteen percentage of the population were in the old age, from 60 years old onwards, with the rest in the children-age group.

4.1.3 Transportation

Despite being in the vicinity of the capital city Bangkok, Ban Khun Samut Chin is not easily accessible and feels remote. There is no road to the village, nor are any small streets at all in the village. To reach the community, one had to travel by boat and on foot. Most of the area is covered by aquaculture ponds. On weekdays, there is a daily boat service run by villagers from a neighbouring area, which leaves Ban Khun Samut Chin at 6:00 am travelling to Paknam Market, on the East side of the Chao Phraya River, where Samut Prakan City Hall is located. Ban Khun Samut Chin villagers often get off half way at a main stop within the Phra Samut Chedi District, called “Ta Pa Li”, where they can catch the bus to their destinations. Students going to schools outside of the village usually ride this boat. The villagers often entrust the boat driver to carry their produces to the market for them, and pay for the shipment. The boat leaves the market around 9:30 am and returns to the village. At the time, the maximum cost of this boat ride was £1.60 for each trip, depending on the distance taken by a passenger. In the evening, the boat leaves the village at 3:00 pm and returns around 6:00 pm.

Those missing the scheduled boat, or preferring to have more freedom, could hire a smaller taxi boat. This service is also run by villagers from neighbouring areas. Those wanting to hire the boat have to ring to the boatman's mobile. At the time of my fieldwork, this cost about £2.20 per boat ride, so the more people shared the ride, the less it was for each individual.

Several villagers told me that if only there were a road to the village, they would live a better life. They believed that a road would bring more tourists. Also, it would reduce transportation costs for the delivery of tools and materials used for dam construction, the prevention of coastal erosion, and for house construction. However, they understood that building roads over soft soil is quite problematic. They had also witnessed a bridge which had collapsed previously.

4.1.4 Communication

One instrument that the village chief had been using to disseminate news to her fellow villagers during the time of this study was a village broadcasting tower. If there was anything important that the village chief wanted to share with the villagers, she would talk via this system. Some announcements, I heard, asked villagers to participate in a training course organised by the district office, and begged the thief who stole the ancient coins from the village museum to bring them back. One villager told me that the village chief had been using the village broadcasting tower as her own communicating tool since her days as a village health volunteer, long before she became the village chief. However, the tower was not a

very functional tool for those living toward the east and the west sides of the village, nor for those going out to sea, as they could not hear the announcements very well.

Another common communication tool was the mobile phone. I observed that every household with which I came into contact owned at least one mobile phone. The village chief would use her mobile to call villagers to ask them to attend training courses, to accompany news reporters visiting the village, to entertain TV programme production teams, or to do fundraising for a temple in other provinces. Villagers also used mobiles to call a taxi boat, to do business with their customers, and to keep in touch with relatives living in other areas. Pre-paid service was the most commonly used; the villagers usually bought the pre-paid card from grocery shops in the local area. The shopkeeper normally charged them 10% more than the price stated on the pre-paid card, but the villagers did not seem to mind. They understood that the shopkeeper had to make up the cost of transportation in order to earn some profit.

Another key communication channel with outsiders was through mail. There was no post office in the area, however. The villagers had to catch a boat and a bus to go to town, which took more than half an hour for a single trip, if they wanted to use the service. When a postman paid a visit, he often dropped all the letters at the village chief's house, which was the contact point between the villagers and outsiders. The village chief's family also own a small snack shop where students usually stop on their way home, and where family friends come to drink with her husband almost daily. Those friends are asked to deliver the letters left by the postman.

4.2 Livelihood Assets

This section explores the community's livelihood assets. Drawing on Scoones' (1998) framework for analysing sustainable livelihoods, four categories of livelihood resources, namely natural capital, economic capital, human capital and social capital, are applied here to the analysis of livelihood in Ban Khun Samut Chin.

4.2.1 Natural Capital

The village includes an area of around 2,200 square kilometres, most of which is used for aquaculture purpose. It is said to have abundant seafood. One villager, who was once a crew member on a deep sea fishing boat before marrying a local woman, said he had travelled to many places but never found anywhere as rich in marine life as the village. There used to be a dense mangrove forest surrounding the village and the village chief tells that when she was young they were too dangerous and she dared not walk alone through them. That was the reason why she could not attend school; the school was far away and she had to walk many kilometres barefoot through these dense mangrove forests. The village boys, however, could stay at a temple close to a school.¹⁹

¹⁹ There is a rule forbidding Buddhist monks from engaging in close contact with a woman. A girl, like the village leader, was not allowed to stay overnight at the temple like the boys. Thus, she could not attend higher levels of education.

Many mangrove trees were later knocked down to dig aquaculture ponds. The ponds are used to farm blood cockles, crabs and/or shrimps. The owners of the ponds do not need to buy food to feed this livestock since it is naturally fed by tidal sea life. Those who do not own a pond go to the shoreline to collect baby blood cockles and sell them to the pond owners. Some also collect oysters, which is the most popular product in this study area. Some search for crabs. Pond owners buy the small crabs while local restaurants purchase the adult crabs. Those who have a boat might go out to sea to catch small-sized shrimp-like animals, which were an essential ingredient for making a cooking paste, another popular local product. Though the villagers has complained that marine life is no longer as productive as it used to be, they agree that hard-working villagers have little to worry about regarding their livelihood as natural resources are still abundant.

Blood Cockles

Depending on tidal changes, cockle spawn or spats may be collected over several hours per day, ranging between two to eight hours. Blood cockle collectors usually go to the coastline at low tide and return home when the tide is rising. According to the villagers, the sea level falls about an hour later on the following day. One blood cockle collector explained it thus:

Suppose today the water levels fall in the morning. If the water levels start falling at around 7 am, they will also rise early. We can collect cockle babies for about 2-3 hours. The following day the water levels will fall at around 8 am, we can collect for about 2-3 hours. The following day the water levels will fall at around 9-10 am, we will collect from 10 am until 6 pm. The following day the water levels will fall at around noon but when the water levels fall at around noon, they won't fall much. Because they won't fall much, we can

collect for about 2-3 hours. Then when winter comes, which is usually between September and January, this changes. The water levels will fall at night time, so we will use a head torch to collect at night. Likewise, we collect around 1-2 hours at night, but it varies every day.

This local observation is close to the scientific knowledge that the sea level falls and rises around 50 minutes later each day, which is the average time the moonrise is delayed every day.

During the peak fishing season, a cockle collector can collect at least 10 kilograms per day. Large cockles can be sold for 50 pence per kilogram, whereas the very small ones can be sold for £1 per kilogram. In the off season, a collector can collect roughly five kilograms of blood cockle spawn per trip. The prices are set by the pond owners and they are all paid the same price. The blood cockle collectors know the market price of the full-size cockles, and believe that they are being paid fairly for the spawn as well. One collector told me that he and his wife need only to collect cockles during three days in a two-week cycle of sea level changes, and they can earn enough money for their family of three to live on throughout that period.

It's a self-sufficient lifestyle, and you can make good money if you are not obsessed with things that are bad for you; if you do not pretend to have a new motorbike, or refrain from buying this and that. Otherwise, it wouldn't be enough for a living. As you can witness from my own case I have lots of spare time to volunteer for the community because during a 15-day water cycle it is enough if Pui [his wife] and I work only three days. If we work three days we can earn about 2,500 baht [roughly £50] which is enough -- five days for a couple to make 2,500 baht. As we live in the coastal area, we do not need to spend much.

Another villager noted that the pond owner also had to make profit. The cockle collectors I came across seemed to accept that they did not have to invest in anything, compared to the pond owners, so they needed less money.

A cockle collector who does not have a boat can simply walk to the mudflat with a hand net, mud-ski board, and plastic basket to search for cockle spawn. Those with a boat can go further, thus increasing the chances of finding more small cockles. However, this implies also higher costs, such as spending on fuel, as a trade-off. At the cockle site, all collectors, whether they come by boat or on foot, kneel on the mud-ski board and use one foot to pedal around the mudflat, looking for cockle holes in the mud, and dig with a hand net. When they return from the coast, they go to the pond owner, who buys the cockle spawn to trade for cash. The cockle collectors then go home, but not empty-handed. They usually bring back fish, shrimps, and other shellfish for household consumption, which have been caught with a fishnet while picking the cockles.

Crab

During the neap tides, the sea level does not fall enough to search for cockle spawn. Therefore, some cockle collectors search for mud crabs. Big crabs can be sold for consumption, while small crabs can be sold to a pond owner, to raise them together with shrimps and cockles, until they are mature enough to be sold for consumption. As this usually takes only a few months, pond owners are happy to buy small crabs.

A small crab is worth about 40 pence, whereas bigger ones can be sold for about £10 to £15 per kilogram.

If the coastal fishermen are lucky enough to catch a big mud crab, they sell it to a middle person, who then resells it to restaurants. Some ask children who go to school outside the village to sell the crabs for them at the main jetty to the village called *Ta Pa Li*. Then the fishermen tip the children, as a reward. Some coastal fishermen ask the boat driver to carry their products to a bigger market at the provincial centre: the price at that market is higher than that given by a middle person at *Ta Pa Li*. Likewise, the boat driver is given some tip for the shipment. The standard tip is about 20 pence each time, which is cheaper and also more convenient than going themselves. A villager told me that if he could catch many crabs, he would take them to the provincial market on his own boat. The price is set by the middle person. When asked why they do not sell it directly to a restaurant, the common answer is that they do not have the contacts and a restaurant owner would not buy the seafood from just “anybody”.

Oyster

Oyster catching has become an additional source of income for the local people in the last decade. Although oyster culture has been developed in many coastal areas in Thailand to meet the growing domestic demand, oyster resources from the study area are all from nature. Abundant natural oyster beds can still be found in the shallow coastal water of the intertidal mangrove area in this research area. Oyster

catching is not very popular in the village, even though it has a high market value, because it requires lots of work.

However, oyster fishing has been rather common among households in the central area of the village, where the houses are closer to the shoreline. They can catch oysters for only about half of the year, when low waters occur during daytime, since oyster shells are so sharp and they are quite difficult to find if there is not enough sunlight, so the fishermen might hurt themselves. Oysters are harvested by using hammers and sharp steel rods to pry them off the rocks. The oyster fishermen then gather the oysters into baskets and take them home, where they remove the shell. Shell removing has to be done within a week before the oysters die. This process can be very time-consuming for unskilled fishermen.

Shelled oysters are weighed in half kilograms and packed into plastic bags with water added to keep them alive, before sending the product to a middle person at the provincial market. However, one villager works as a temporary employee at the local administrative government and often receives oyster orders from his colleagues and friends. He buys the oysters from the fishermen at the same price as the middle person and makes a profit when reselling them. Oysters from the village are fresh and inexpensive, so they are quite popular among visitors. When a group of visitors comes to the village for a field trip or for mangrove reforestation, they frequently ask the village chief for the contact person and order a meal of oysters and other seafood to be prepared. Also, many buy the produce to take back home. They usually tell the village chief how many packs they would like to buy and the

village chief phones the oyster fishermen to bring the oysters to her house, which is also the community learning centre. She does not seem to make any profit out of that, because often the visitors pay the fishermen directly. The fishermen do not make more profit selling their product directly to consumers either. They sell it at the same price as to the middle person, about two pounds for one kilogram at the time I was in the field.

A year after my fieldwork, I phoned one of the oyster fishermen and found out that the price had doubled. They no longer sell the shucked oysters to the middle person at the provincial market since one of their recent visitors was acting as a middle person, buying the oysters from the fishermen and offering a higher price. They do not have to go as far as the provincial market any longer since the new middleman picks up the product at the main jetty to the village. The transportation is cheaper if they go themselves. In addition, they receive payment in cash as soon as they exchange their products, unlike the way it worked with the boat driver, which meant that they had to wait until the driver returned in order to receive the money.

Koey

The households that have a boat can sail to sea searching for tiny tidal opossum shrimps called *koey*. These are used to make shrimp paste, which is an essential ingredient in many Thai dishes and seasoning pastes. *Koey* are invertebrates in plankton which have a similar appearance to shrimps; they are about 1.5 centimetres long, thin and soft. They live together in groups in the beaches, brackish canals and mangrove forests, where the water level is about shin to chest deep near

the water surface. Catching *koey* is dependent on the weather, the wind direction and the strength of the wind for these tiny aquatic animals will drift with the strength of waves and wind. In the Upper Gulf of Thailand, *koey* can be fished almost all year round. Small-scale gears employed by the villagers to catch this planktonic shrimp are surrounding nets, which have been used by Thai fishermen in shallow waters near the coast for a long time. In the study area, a blue nylon net, with mesh size of about 1-2 millimetres, is sewn like a bag and attached to two wooden poles to close the bottom part of the net. It is operated by a fisherman on a motorboat.

Only a few of the households in the village that catch opossum shrimps make the shrimp paste as a small-scale, home-based business. Once the shrimp are unloaded, they have to be rinsed so they can be kept fresh and alive using seawater passed through a mesh container to sift out all the sand from the seawater. After that, the *koey* are laid out to drain before salting and then filled into earthenware jars for 1-2 nights before exposing them to the sun. Later, they are spread out in the sun on sieves placed so that the water can drain away. Later in the day, they are gathered and filled again into the jars for storage overnight; they are laid out in the same manner the next day. This goes on for three or more days, until the shrimps disintegrate and are completely dry. When the shrimp are no longer recognisable and have turned into a dense paste, the decomposed shrimp are pounded, ground or milled until they become fine. The fine paste is then fermented and aired out in the sun, up to three times. Then the paste is packed in the earthen jars for fermentation for months until an agent comes along to collect it. A by-product from this process is fish sauce, also a famous local product.

In fact, the villagers say that only three households still make the shrimp paste, one of them a household that owns an aquatic pond. Others might make it just for household consumption. Villagers sell some of opossum shrimps they catch to these households, and some sold to a business outside the village. When being asked the reason for not making the shrimp paste for commercial sale, one household told me that it was difficult for a newcomer to enter the market.

4.2.2 Economic Capital

Table 4.2: Household Distribution of Ban Khun Samut Chin by Income and Debt²⁰

Income and Debt	Frequency	%
Average income per household	120 pounds per month	
Income Sufficiency		
Not enough	19	25.7
Enough	55	74.3
Total	74	100.0
Indebtedness		
No	26	36.6
Yes	45	63.4
Total	71	100.0
Average debt per household	680 pounds	
Lowest debt per household	None	
Highest debt per household	20,000 pounds	
Reasons for debt		
Investing in business	30	63.8
Basic needs	18	38.3
Children education	7	14.9
Family member illness	5	10.6
Building a house	3	6.4
Sources of loan		
Relatives	18	37.5
Village revolving fund	11	22.9
Business people	6	12.5
Savings group	5	10.4
Other villagers	5	10.4
Bank	4	8.3
Loan sharks	2	4.2
Governmental organization	1	2.1
Pyramid scheme	1	2.1
Parents	1	2.1
Employers	1	2.1

²⁰ College of Population Studies, 2011: 13-14

Income Generation

The majority of the villagers earn their income from coastal fishing activities and as daily workers, mostly in the aquaculture sector. Within a household, there are several sources of income. Some of the family members may work for the local government; some sell food or run a small kiosk, while others do coastal fishing. Not only are there different sources of income in one household, but each member of a family may be involved in several different income generating activities individually. When not collecting the cockles, some cockle collectors may find alternative sources of income from other coastal fishing enterprises, or by becoming wage labourers for pond owners,²¹ or by selling food, or by mending clothes, or by working in rubbish collection along the shoreline. The households whose livelihood depended on coastal produce can be roughly categorized into two groups based on their economic assets: (i) households with no aquatic pond, which make up the majority of the village, and (ii) a handful of households with one or more aquatic ponds.

However, families that do not have an aquaculture pond do not necessarily feel that they are poorer. They say that to own a pond requires more investment and that the high risk has to be taken into account. That idea also applies to those who do not own a fishing boat; thus, for some who do not own their own boats are quite content with their situation. They say that to take the boat out to sea, they need to

²¹ From time to time, pond owners hire some villagers to harvest blood cockles, turn the pond bed to improve its ecosystem for cockles, or fix eroding pond banks. Twice a year, the pond owners also need labour to remove accumulated pond sediments and dispose them on the ridge in order to prevent the water channel at the pond bed from being too shallow for shrimps.

pay for fuel, which has become quite expensive. The cost may not be worth the additional income to be earned. I learned from an informal conversation with a villager that a number of her neighbours and relatives had sold their boats, since the fuel cost is not set off by the income they receive from catching shrimps, and because the shrimp population has decreased dramatically over years. Others have sold their boat due to health problems of the only family member who could drive the boat, which meant that the person was not able to do it anymore. A household in this situation normally receives as their main income remittances sent by their grown-up children. The livelihood of the non-pond owners, which revolves around natural resources, has been described above in section 4.2.1. In what follows in this next section, I will explore the lives of the pond owners.

The pond owners seem to be the better-off group in the village, since they needed sufficient money to invest in blood cockle spawn and they had to wait at least a year until they could sell the mature blood cockles to the market, and make their profit. Nevertheless, it should be noted that most aquatic pond owners merely have a temporary right to hold land or property.

In the village, there is usually one pond owner buying cockle spawn at any one time because they take turns amongst themselves. Apparently, this can be managed with minimal conflict because the pond owners in the village are all related. Additionally, the cockle collectors are quite loyal; they will sell the cockles to one pond owner until the owner says that s/he has enough cockle spawn and then they start selling to another owner. As mentioned earlier, the national market demand for blood

cockles is very high. The pond owners need tons of the baby cockles. The cockles caught by local fishermen are not enough. Hence, the aquatic pond owners also have to buy cockle spawn from a wholesale dealer, in a neighbouring province. The pond owners pay the local collectors the same price, or even a slightly higher one, than they pay the dealer; in that way, they “share their wealth” around the village, said the village chief. Sometimes when a pond owner is short of cash, they ask the local cockle collectors if they can pay later.²²

Once the cockle spawn arrives at a pond, it is loaded on a boat that is steered slowly by one person. Then the eggs are sown into the pond. Some owners sow the cockle spawn by themselves but many hire other villagers to do this job. The spats need to be distributed as evenly as possible. There is no specific tool for sowing the eggs. The time required for cockles to reach their market size is influenced by the age of the culture bed. Growth also declines as the culture beds age. After four to six months, the young cockles are redistributed by manpower, turning over the culture bed. Harvesting blood cockles then takes place about 12-18 months after seeding. Blood cockles are usually marketed when they reach a weight count of 50-60 per kilogram. Within the same pond, there were several generations of blood cockles, so that the pond owners can sell marketable ones several times a year.

²² Buying on credit is common practice in the village as I observed that some villagers bought goods at the village chief’s kiosk and told her they would pay later without having to sign any agreement. It also happened to me when I did not have any small change, only banknotes, to buy dessert from a villager and she did not have enough change for me either. She simply gave me the dessert and told me to pay her when I had the change.

Ponds within the village are a naturally integrated aquaculture system where shrimps, cockles and, in some cases, mud crabs, are raised simultaneously. However, only a pond with a water gate to the sea is appropriate for cockle culture. Water in the ponds with a water gate facing a brackish canal is not saline enough for cockles to survive. The natural aquaculture ponds are called *wong*, literally meaning palace. Meanwhile the ponds with oxygen aerators are called *bo*, meaning pool. Shrimp, blood cockles, and mud crabs raised in the village grow naturally. This growth requires oxygen and fertile food sources like plankton and water fleas. The appropriate areas for this type of aquatic pond are, for example, marshlands and the periphery of mangrove forests, where both oxygen and food sources are very rich, like in the research site. These ponds are not too deep and approximately not more than one metre in depth so as to have enough oxygen. A deep-water channel of approximately two metres was dug into the pond bed because its inner rim was for shrimps, which require relatively cooler water.

The pond owners, therefore, do not have to feed their aquatic animals. The blood cockles, shrimps, and crabs eat natural plankton and water fleas. The owners sometimes buy tealeaves to kill fish, which are the main predators in the pond. Generally, the pond owners have to invest in baby blood cockles and little mud crabs, but not in shrimps. Shrimp larvae and fingerlings, along with the plankton naturally filtrated into a pond -- as its gate is regularly opened during the spring tides to refresh water in the pond in order to prevent water quality deterioration. There is a bag net at the water gate to trap and prevent shrimp and crabs from escaping while the water is being released. The crabs that are not big enough are taken back

to the ponds, to be caught later. The village chief said that there used to be loads of shrimps caught every day during the spring tides. Nowadays, the yield is high only on the very first few days of water release. The pond owners usually form their own working team to assist them with the water gate release, as well as shrimp harvesting and selection.

There are different market channels for different aquatic animals in a pond. For example, the village chief usually sells crabs and a particular type of shrimps to a middle person at the provincial market, because the buyer gives her the best offer. Another type of shrimp is sold to a buyer who gives her the best price. None of her family members takes crabs or shrimps to the buyer directly; her family asks a boat driver to do the logistics for them and they pay him a tip, depending on how much she earns from the sale. The mature blood cockles from her pond are sold to other buyers who pick up the cockles right from her aquatic ponds. Some pond owners earn a tiny bit more if they took the cockles to the buyer's site; however, the village chief told me that the difference still was not worth the transportation cost.

A new source of income for some pond owners comes from tourism. While I was in the field, there was only one guesthouse, or homestay, where I stayed, which was managed by the village chief's son. He got the idea from a Chulalongkorn researcher who had worked closely with the community for several years. There had been many visitors coming to the village, for it is well known as a community severely affected by coastal erosion, but overnight tourism was not popular enough for other pond owners to follow in his footsteps by building a guesthouse on their own ponds.

However, early in 2012 almost half a year after finishing my field work, there was a production team coming to the village to film a travel programme. The show was broadcast on a national television channel, and tourism in the study area boomed once again. A few other pond-owning households built guesthouses on their ponds to serve overnight visitors, who usually come on weekends.

The pond owners are not the only group benefitting from tourism. They provide accommodation, as well as fresh seafood meals, which is very popular among tourists. However, tourists also buy desserts from local sellers. Moreover, the pond owners have been asked to contribute a certain percentage of the income from the tourists to the community natural resources conservation group to help maintain the cleanliness of the village and to hire a local guide, who is a member of the group, to take the tourists on a walking tour around the village. The villager who was a member of the conservation group and had become the local guide told me that tourism had brought him a large amount of income since he often received tips from tourists in addition to the money paid by the group. Moreover, the community natural resources conservation group itself had more money to finance their mangrove reforestation and unsustainable fishing monitoring activities. This phenomenon is similar to what Carey (2010: 97) refers to as “disaster economics”, or “economic development that directly and indirectly follow[s] the science, technology, engineering, and policies implemented after catastrophes and to prevent additional disasters.”

Land Ownership

Only a few household in the village own land. Most of the land in the village is officially owned by outsiders who inherited the land from their forefathers. They themselves did not grow up in the village, and have never lived there. The village chief and several villagers who had been living in the village for generations told me that they had been told by their parents and/or their grandparents that, in the past, the sea was abundant with seafood, so they would trade their hundreds square kilometres of land for money in order to purchase excellent fishnets. They could not imagine that, one day, local natural resources would dramatically drop and that the small piece of land on which they had built their house would return to the sea.

The residents of the Khlong Mon area lived for free on the land of an influential family in that area. The people, therefore, became grateful to the family.

Meanwhile, some of the Khun Samut Chin residents living close to seafront areas were allowed to have their houses built on the land of the generous business people, free of charge. Some would do farming in an aquaculture pond owned by those owners, in exchange for taking good care of their land. According to the villagers, those rich business people were not interested in land that was in a remote area that might be eventually swallowed up by the sea. Other Khun Samut Chin residents living in relatively inner areas rented their land for a very low rent from landlords living in neighbouring areas.

One businessman came to the area with a group of civil servants from the provincial land office to measure a piece of land, which he claimed was his own and had already been taken by the sea. I realized that more than half of the land in the village belonged to outsiders. Even the village chief and the influential family of Khlong Mon had been farming on aquaculture ponds that belonged to outsiders. They were the contact persons between the landlords and the smaller tenants.

Those who did not own land seemed not to worry much if the village was totally swept away by the sea. For them there was not much to lose. Also, members of many of those households could find refuge with relatives living in other areas. Those who owned considerable pieces of land were exposed to greater losses. Nonetheless, some had purchased land in other provinces to which they could migrate in case of losing their present dwelling. They had to accept this personal risk. Several villagers complained that the government did not care about coastal erosion and that the land of the nation had been gradually sinking into the sea and the Thai government was making greater efforts fighting Cambodia for the rights over the Temple of Preah Vihear. Having no faith in the government, those villagers stated they would fight for their land but, if there was nothing they could do, they would eventually have to move out and start a new life.

4.2.3 Human Capital

Health

The community has access to the health system mainly through the government's Universal Health Insurance System. The system covers medical treatments according to the National Health Security Office plan. There is one primary health care unit in the community, one district hospital in the district, and one provincial hospital in the province where people can receive medical services free of charge. There is also a public hospital run by the Navy where they charge relatively low fees compared to several private hospitals and clinics located in the province.

Although there is a health centre in the community, health personnel do not come every weekday. The villagers told me that they had agreed to come on Monday, Wednesday, and Friday; however, the health carers sometimes were not at the health centre when expected. The villagers seem to have grown accustomed to this erratic service. Several villagers ask for basic medicines when the health personnel visits, and then self-medicate when they feel a bit ill. Some villagers buy steroids at a pharmacy to cure the pain themselves, without consulting health personnel. In the case of patients with chronic diseases like diabetes, hypertension, or mental illness, they have to go to the district hospital to see the doctor or visit a mental hospital on a regular basis anyway. Several villagers prefer going to a private hospital even though the fees are quite high, because they think that they will receive faster

services, instead of waiting in a queue for half a day at their registered district hospital.

Nevertheless, the villagers considered themselves to be relatively tough compared to people living in the city. While conducting the fieldwork, I was bitten by a rat while sleeping. I went to the health centre for a vaccination however there was no one there. So, in order to get a vaccination, I had to take a boat to another health centre in the nearby village, which was quite inconvenient. The vaccination was free but the transportation was quite costly. A few villagers teased me, saying that city people are fragile, unlike “sea people” like themselves.

Education

As for formal education, there is one school in the village, which provides early-year education for pre-school children, as well as the six years of primary education. In order to go to a secondary school, local children have to commute to the municipal area. Although the Thai government launched a 15-year free education policy in 2009, the villagers told me that free education was not really free because the budget allocated by the central government did not cover all costs. First of all, transportation costs are not covered. Living in the rather remote area has made formal education relatively less accessible for the villagers. Also, the budget allocated for uniforms per student is based on the average price for two sets of school uniform per year. If parents want to buy more than two sets, they must assume the additional costs. Although it seems like parents receive financial support

from the government for their children's education thanks to that policy, several villagers told me that they still had to set aside a lot of money at the beginning of every academic year.

Moreover, the villagers expressed a great concern over the quality of the primary school in their village. To begin with, the construction of the school was not very solid and it had collapsed once. The buildings are made of wood on concrete poles. I remember once visiting the school and a teacher was asking the students not to run around because the buildings could collapse. Additionally, students do not get much chance to play outside on a playground, as they are supposed to at their age, which leads to insufficient physical development.

Secondly, the inadequate quality of education was due to a lack of staffing. Although at the time of the field research there was one carer for about five pre-schoolers, and three teachers for about 25 students, which seemed better than the national standard ratios, the school staff members were burdened with other responsibilities. In addition to teaching, they had to deal with administrative work, until an administrative teacher was hired during my stay. Also, they had to prepare lunch for students, with the help of a caretaker. The school headmaster changed often. Almost nobody works at the school for more than two years and this somewhat affects the smooth and continuous development of the school. Those headmasters are usually newly promoted from somewhere else and at the very first chance, they asked for relocation back to their locality or to a school closer to their neighbourhood.

There is official housing for the teachers, but the buildings look old and wobbly, as if they could collapse at any time if someone stepped inside. Despite living in relatively close proximity, the teachers I met during my field work, except for the pre-school children carer, were not local residents so they had to commute every day to this remote school. Transportation expenses are probably half of their income. On a rainy day, life can be even more difficult for them, as they have to walk on a path along a muddy ridge through aquaculture ponds for about one kilometre. The school then starts late and students are released early depending on the weather.

Thirdly, the unsatisfactory quality of the school was due to its learning facilities. The library is not children friendly. The books are old and I noticed that they are more suitable for older children. Some villagers complained that the children attending this local school were not able to read and write well, compared to those attending other schools. I learnt this directly when I attended a workshop organised by a group of researchers working with the local community to develop a local plan in response to coastal erosion. During the workshop, we were assigned into groups to work on a number of exercises and read our ideas aloud to the other participants. A young boy in my group could not read the legible handwriting of another group member properly, though he had completed primary education in the village. This probably led to a high dropout rate during secondary school years and a very low rate of community members making their way through higher education. These are the reasons why quite a large number of parents send their children to other primary schools, even though it is very costly to commute every day.

Table 4.3: Population Distribution of Ban Khun Samut Chin by Education Level²³

Education Level ²⁴	Frequency	%
None	58	20.9
1 st -3 rd Grades	18	6.5
4 th -6 th Grades	138	49.6
7 th -9 th Grades	30	10.8
10 th -12 th Grades or Equal	14	5.0
Diploma	4	1.4
Bachelor Degree or Higher	11	4.0
Unknown	5	1.8
Total	276	100.00

I met a few youngsters who did not do well during their secondary school years. One told me that schooling was not for him, as he would not need English to earn his living anyway. The abilities to do coastal fishing and aquaculture farming would be more important for him and it was his choice to quit school after finishing the 9th grade. Having been brought up in a neighbourhood where going to kindergarten, primary school, secondary school, and continuing to higher education is a must,

²³ College of Population Studies, 2011: 9

²⁴ Education in Thailand is provided mainly by the Thai government through the Ministry of Education. Formal education consists of three years of early year education, six years of primary education, six years of secondary education, and higher education. The early year education is basically preparation for primary level, in which the Ministry of Education has encouraged local governments to adopt a significant role. Primary education covers grades 1-6. Secondary education is divided into three years of lower secondary education, grades 7-9, followed by three years of upper secondary education. Since 2003, a minimum of nine years school attendance i.e., grades 1-9, has become compulsory. The nine years mandatory education aims to equip students with literacy and numerical skills that would make them competent workers for non-specialized jobs, or prepare them for further studies. At the upper secondary level of schooling, students have a choice between a general (or academic) track and a vocational (or technical) track. The academic track covers grades 10-12 whereas the vocational stream leads to a certificate of vocational education 1-3.

rather than a choice, and those who could not make it through were usually considered as a failure, learning this was quite amazing to me.

On the same note, the village chief herself really valued education. Due to family circumstances, she, however, did not have the opportunity to continue secondary school. To make up for that, she sent both of her sons to university. Also, she was eager to help any students interested in learning about Ban Khun Samut Chin. This was the reason I had access to so much information from her.

In addition to the formal education system, there are non-formal and informal education services, which provide alternative education for those who are not able to join the formal one. This type of education services provides training courses in order to enhance the skills of community members. For example, during my fieldwork the district office together with a university in Bangkok organised a three-day training course on hygiene practices for processing seafood products. The course was held at the district meeting hall for one day and then participants went to an overnight field trip to another province.

Although the course was free of charge and participants received food and travel allowances, the villagers were not very interested and were rather reluctant to attend, so the village chief had to beg them to join in order to fill up the village quota allocated by the district office. Some told me that for them it was a waste of precious time they would otherwise be investing in generating income; as coastal fishermen, their work depends very much on the tide. They can only go to the sea

during the period when there are changes in tide level, which they literally called 'living waters'. During the period in which there are no changes in tide level, called 'dead water', they stay at home. So, if they miss that vital window of opportunity to go out to sea, they miss the chance to earn their living. This is quite a common problem of development interventions. Rigg (2016) points out, in *Challenging Southeast Asian Development: The Shadows of Success*, that some development interventions are unwelcomed because their allocation, implementation and distribution are not appropriate for everyday activities of their target recipients.

The hygiene course itself was not very well designed for the needs of the locals. It has been a long tradition in Thai culture that experts know more than laypersons. Government officials often thought they knew better what the local community should learn and what would benefit them the most. The village chief had to beg the villagers to attend the course, although their main occupation was small-scale fishing and selling fresh seafood. They were not interested in processing seafood for trade, but just for household consumption. The district office planned to have representatives from all villages within its five sub-districts for training on this topic. The representatives from each sub-district were trained at the same time. More than one hundred people were cramped into a room to listen to a lecture. There were also cookery demonstrations on how to process several seafood products, but not everyone got a chance to practise making them. Some did not even pay attention. The villagers I accompanied took the opportunity of the free transportation to do something else. Some made official contacts with civil servants at the district office. Some visited their family members living in the vicinity of the

area where the course was held. Others went to do grocery shopping at local markets.

Nevertheless, the villagers who shared the same interest in occupation training could get together as a group and technically ask their sub-district administrative organisation to provide them some further training sessions. Recalling that once, teachers at the local primary school organised on a Saturday a special course on dessert making for schoolchildren. I thought the school itself could become a potential centre for non-formal education as well.

4.2.4 Social Capital

Tradition

In Thai society, there are three main religious practises co-existing side by side: Animism, Hinduism and Buddhism. In this village, the people seem to embrace parts of each of the three religious practises, as they choose. There is one temple in a community and a holy shrine each in the Khun Samut Chin and Khlong Mon residential areas where the local people worship spirit(s) for good fortune. The shrine at Khlong Mon is associated with Buddhist monk figures, whereas the one at Khun Samut Chin is associated with a Chinese young boy guardian spirit. However, most of the communities' activities, at the present, are taking place outside the temples; mostly at the community centre where the Chinese shrine is located.

For example, the villagers celebrate the Thai New Year together at the Chinese shrine, located near the house of the village chief, although the Khlong Mon people celebrate New Year again at their own shrine. The Chinese guardian is believed to be very sacred; every year there is a festival to honour the young boy spirit, and those who emigrated elsewhere also came back to worship the spirit. The date is specified by the lunar calendar, which is usually at the beginning of the solar calendar year in late January or early February. During the Thai New Year celebration in the village, tug-of-war games and football matches are held between the people from those two different zones on a community playground near the Chinese shrine. The Chinese shrine is not only a place for cultural gathering, but also a centre for political matters. The village development fund group also gathers there for a meetings and balloting takes place nearby.

Several local people told me that the Chinese shrine, not the temple, was the spiritual centre of the village. There is a legend that a local fisherman found a small sculpture of a Chinese boy in his fishing net. He threw it back to the sea but kept finding it again and again in his net. Finally, he decided to bring the sculpture back to his house for worship. Later on, there was a fire in his neighbourhood but his house was safe; the local people believed that it was due to the supernatural power of the sculpture, so they built a shrine for the “floating boy” and named it the *Noom Noi Loi Chai* Shrine, dedicated to the figure. During the *Noom Noi Loi Chai* festival, villagers are assigned a task each, such as cooking, logistics, and so on, from a lucky draw by a local young boy, as the representative of the spirit. However, if someone is picked for two years in a row, his or her name is removed in the third year to give

others a chance to serve the spirit. I knew one villager who was very proud of himself because he had been chosen by the spirit several times since he had moved to the village around 20 years ago. The spirit is where the sense of community is formed; it helps glue everyone: those who used to live in the community, those who have been in the community all along, and those who have moved in later on.

On the other hand, the local people do not seem to be so attached to the Buddhist temple where there were three residential monks. For one, the monks are not originally from the village. Additionally, when the temple became a tourist attraction it attracted a huge amount of financial resources from the Buddhists to save the temple from sea flooding. So the relationship between the villagers and the monks grew colder. A few of the villagers said that the abbot thought that the temple and his fellow monks were independent from local support, and thus they had been acting arrogantly towards the villagers.

The temple is apparently used only for religious purposes, such as gatherings on Buddhist holy days and funerals. In Thailand, monks rely on receiving alms for most of their food. They leave the monasteries very early in the morning, walk in single file -- the oldest first -- carrying their alms bowls in front of them. Laypeople wait for them and place food, flowers, or incense sticks in the bowls. In the village, where there are only three monks, each goes to a different residential zone: one to the eastern zone, Khlong Mon; one to the central zone, Khun Samut Chin; and one to the western zone, namely the neighbouring village. Women must be careful not to touch the monks. After the giving and receiving of alms, the monks say a blessing for

the people. Traditionally, the practice creates a spiritual connection between the monastic and lay communities. Lay people have a responsibility to physically support the monks, and the monks have a responsibility to spiritually support the community. On a Buddhist holy day, however, these monks stay at the monastery. The villagers on the contrary go to the temple to give them alms. There is usually one Buddhist holy day every week. The local school headmaster at the time of my study also had a project to take students to the temple on the Buddhist holy days to get involved in local activities.

Though the relationship between the abbot and a number of villagers was not very good, several people still gave alms and helped out at the temple when being asked. The monks were invited to dine at the Chinese shrine to celebrate the New Year. Some families also invite Buddhist monks to dine at home with them, for a house blessing ceremony. This is because they believe that through merit-making they earn a better place for themselves, and their loved ones, in their future lives.

Once during my fieldwork, a large group of visitors came to the temple to donate money for a construction project to decelerate coastal erosion. The abbot asked the villagers to help him prepare food and drink for those visitors. Many villagers, mostly women, came to the temple from early morning and helped out until afternoon. Even the villagers who did not usually give alms lent a hand.

Informally, the Buddhist temple is used as an attraction to promote the village to outsiders. While all other buildings in the village, both private and government, have

been relocated further inland, the abbot refused to relocate the temple. During high tide, there is a moat of water around the main temple building. Since the building itself cannot be raised, the level of the floor was instead raised by about a metre, which is about half from its original height. The original hand-carved wooden doors can no longer hang from the smaller doorframes. The building is not very practical for any ritual purposes anymore. One of the local leaders said to me that he could foresee that one day the temple would sink into the sea. However, he did not oppose the abbot's decision not to relocate the temple, as some compromises had to be made. The temple had developed from a religious symbol to become the symbol of the whole community's fight against the threat of land erosion.

The fact that the relationship between the local temple and the community is not very good does not mean that people have stopped interacting with the monks. When people in the Khlong Mon area or people in nearby villages hold an alms-giving ceremony for the New Year at their local Chinese shrines, the villagers who have some free time also attend, to lend a helping hand. This also applies when villagers have a Buddhist house blessing ceremony, an ordination ceremony, or a funeral ceremony. If an ordination or a funeral ceremony is held at other temples away from the village, the host usually provides free transportation for all the guests, and the guests give the host some financial support.

Organised Local Groups

Apart from the informal traditional activities, there are also more institutional local groups governed by formal rules and norms. For example, in Ban Khun Samut Chin, there are funeral groups, the village revolving fund, the village health volunteers group, and the natural resources conservation group. The establishment of these groups has usually occurred by initiatives from government agencies. These activities play a significant role in providing opportunities for community members to interact with each other formally and informally. Their activities were established as relatively formalized group activities ruled by accepted rules and norms. The committees of these groups consist of community members with support by government agencies in various ways, such as guiding, supervising or regulating. The government agencies that support the communities' activities range from national level to the provincial level, such as the Department of Marine and Coastal Resources at the regional level, the Community Development Department (CDD) at the provincial district offices, and the decentralized local government.

During my fieldwork, the most active group was the natural resources conservation group. The group was formed to fight against coastal erosion, and later on it also took on the issue of unsustainable and unlawful fishing practices. The leader of the group was the son of the village chief with the support of the chief administrator of the local government. Almost all of the members were men, since they had to patrol in the sea during the blood cockle spawning season, which was when some people were attempting to use machines to collect large numbers of blood cockle spats at

one time. The task was said to be too risky for women. The group founders tried to get the local adolescents involved in other activities, such as collecting and separating garbage in the village for sale. The group also contacted outsiders facing the same the problems. In the beginning, they contacted other groups by themselves and paid visits to learn how other communities deal with coastal erosion. Later on, when they became part of the network, they were invited to several meetings organised and sponsored by the government and NGOs, such as a Central Thailand Mangrove Conservation Network meeting and the Upper Gulf of Thailand Network meeting, organised by a regional office of the Department of Marine and Coastal Resources. At these meetings, they used every opportunity to informally socialize with people from other communities and thus to strengthen and extend their social capital. Another reason for low participation of women in the Ban Khun Samut Chin conservation group's activities is that the group's activities are time-consuming and women are expected to be at home to fulfil their traditional roles looking after the family. The expected roles of women in the community are not always limited to the domestic sphere. They participate regularly in the public sphere as well; but outside the home, women are typically expected to carry out rather submissive roles, like secretarial work. As a woman myself, for example, I was often asked to help the local activists take notes when I attended meetings with them.

Power Relations

Similarity to other rural communities or villages in Thailand, my study area is under the administration of SAO, which is the decentralized local government at the sub-district level. Also, the community's village chief acts as the representative of the Ministry of Interior (MOI) supporting the ministry in the administration of the village. Both SAO representatives are elected by the community. These administration systems are important in terms of the link between communities and government agencies. The relationships among these administration, the community, and members are important to build trust and facilitate co-operation in order to raise the level of social capital, which local people draw from in pursuit of their livelihoods.

According to the State Administration Act B.E. 2534 (1991), government administration in Thailand is classified into three levels: central, regional, and local. The executive branch of the central government is made up of 20 ministries, including the Office of the Prime Minister. Each ministry is administrated politically by a minister with one or more deputy ministers who are endorsed by the members of the parliament, and bureaucratically by a permanent secretary who is a civil servant or a military official. Within the ministries, there are various departments, offices, bureaus, divisions and sub-divisions. At the regional level, the administration is sub-divided into provincial and district levels, where provincial governors and district chiefs, as well as other government officers, are appointed by the central government. Various departments and offices delegate some of their power and

authority to its officers to work in provinces and districts. These officers carry out their work in accordance with laws and regulations prescribed by their line ministries.

As for the local administration, which is based on the concept of decentralisation, local people are entitled to participate in local affairs under related laws and regulations. There are two types of local administrative agencies (LGAs) in Thailand. One is the general type which exists in every province: (i) provincial administrative organisations (PAOs) responsible for all areas within a province; (ii) municipalities having power over urban areas with a crowded population and intensive development; and (iii) SAOs whose jurisdiction extends over the area of a particular sub-district outside the boundaries of municipalities. The municipalities are classified into three groups, namely sub-district municipalities, town municipalities and city municipalities, depending on the population density and income. Another is the special type comprising two forms of the LGAs namely (i) the Bangkok Metropolitan Administration (BMA) and (ii) the Pattaya City. These LGAs are administrated by local politicians who are elected by the local residents. The administrative structure in Thailand is summarized in Figure 4.5.

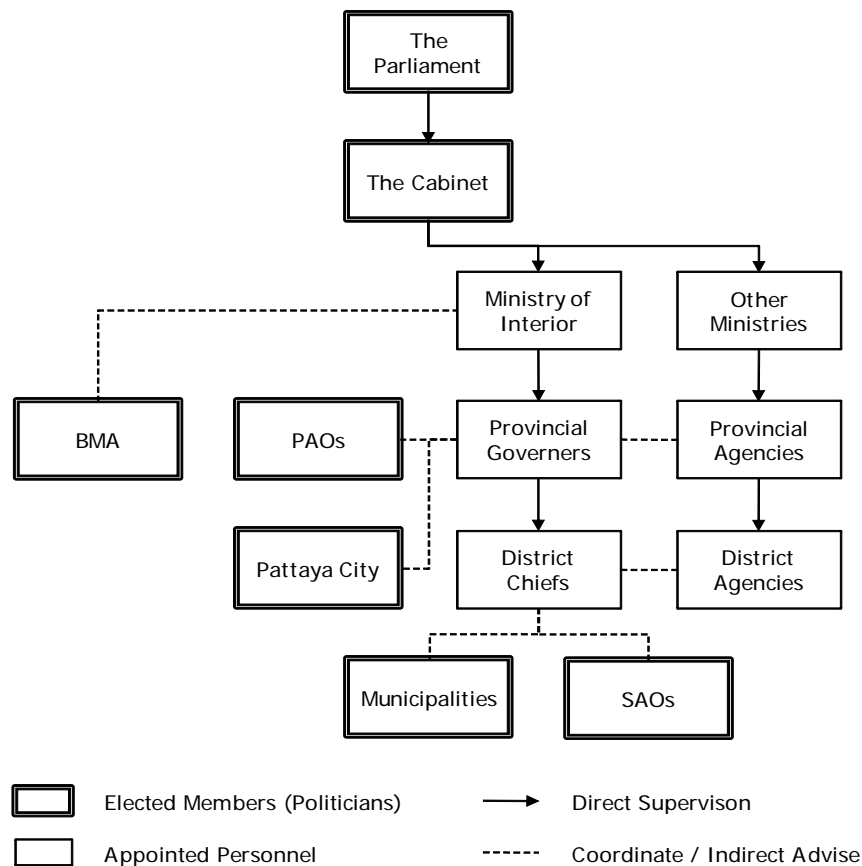


Figure 4.5: Administrative Structure in Thailand

The structure of a SAO itself is divided into two branches: a council and an executive committee. The former consists of two elected representatives from each village responsible for policy and development direction. The latter consists of a chief executive directly voted by local residents, and two executive members nominated by the chief executive. The SAO executive committee is responsible for formulating the sub-district development plan, budgeting, and managing affairs within its respective areas. Members of both the assembly and the administrative committee hold office for a period of four years. Moreover, a member of the administrative committee shall not be a government officer or an employee of a government agency, a state agency, a state enterprise, or a local government organisation, and

shall not have a conflict of interests in respect of the holding of office. Within a SAO, there are also government officers and employees working as its manpower. Their appointment and removal from office is administrated by the SAO, subject to a uniform standard and possibilities of joint development or reshuffles of personnel amongst local government agencies.

Although decentralisation in Thailand has involved the intergovernmental transfer of administrative services as well as associated financial and human resources, the process of change has been very gradual. The central administration still has, to a great extent, both direct and indirect influences over the local administrative agencies. Local autonomy in Thailand is a dual system in which regional administration still exists alongside local administration (Nagai, Funatsu & Kagoya, 2008). As illustrated by Figure 4.5, central government officials are dispatched to provinces and districts. A district is divided into sub-districts, which are further subdivided into villages or communities. Every sub-district and village, in a relatively rural area under the administration of a SAO or sub-district municipality, is also headed by a *kamnan* and village chief, respectively. A village chief is elected directly by the local residents once every five years. Likewise, a *kamnan* is elected by the residents from the village chiefs in the sub-district, and serves for a five-year term. Despite having been elected by popular vote, the *kamnan* and village chiefs act as agents of the central government. "Their duties range from communicating central government orders to the residents to managing resident registration, maintaining public order, and even exercising quasi-judicial power" (ibid., p. 6). They are paid on a monthly basis by the Ministry of Interior. In addition, an increase in the transferred

administrative functions to the local authority as a primary service provider has been largely limited to the inadequate budgets allocated by the central government to perform them. Moreover, any development projects or activities implemented by the local government are supposed to correspond to the national policy and provincial plan.

The village is extremely influenced by two families. The Khun Samut Chin and the Khlong Mon zones each has one influential surname (or family) living in a house that people in the area call *baan yai*, which means “big house”. As expected, the local politicians belong to those two families. The two families are in fact related via marriage. The influential surname in Khun Samut Chin zone is *Kengsamut*, which is the surname of the village chief. The “big house”, however, is not her house but the house of her husband’s parents. Her husband is the village representative in the SAO council. Her eldest son is the village chief’s assistant. Another assistant from Khlong Mon is the youngest daughter of the “big house” in that area. The eldest son of the Khlong Mon “big house” is married to a niece of the village chief’s husband. The second son also holds a political position in the local administrative organisation as the deputy chief executive of the SAO. In fact, I had the impression that all villagers are relatives because they usually marry someone from the same village or nearby villages. This could be the reason why elections for local politicians are relatively uncompetitive.

The relationship between the villagers and the influential families is characterised by gentle paternalism. The influential families own a large area of aquaculture ponds. They buy blood cockle spawn from villagers to be raised in their ponds and hire them to fish during harvesting season. The villagers are free to work for others but priority is given to those leading families. The village chief established her influence, for example, by opening her house around the clock to any villagers in need. I remember one villager came to her in the middle of a night asking for medicine for her sister. Any villager can stop for a meal at her house. She also buys food and desserts sold by the villagers, even though her family is not able to eat them all.

On one occasion, when a villager was suspected of being involved in drug dealing and another of stealing from the local museum, the village chief preferred to use diplomatic ways to deal with them, rather than have the police involved. One reason may have been that her aquaculture livestock might be at risk if the person, subsequently, wanted to take revenge. Another reason for her diplomacy was that one of the suspects was a relative of her husband. She said that it would be a sin to hurt his very old mother emotionally, for it would break her heart to learn that her grandchild had committed a crime. Her kindness was well known among the villagers. If any of the villagers is admitted into hospital, she visits them when she goes out of the village. There was one case when a villager had committed a small crime and the village chief, her husband, and the deputy chief executive of the SAO from Khlong Mon zone used their positions as guarantors for the bail needed to get the person out of jail.

One villager who had moved to the village through marriage more than fifteen years ago said that the villagers were all relatives; they sometimes disagreed and fought among themselves, but they were always ready to get together and fight against external threats. For example, any villagers who had helped outsiders take advantage of the local people were not openly boycotted or socially excluded, since they all lived as one big family. The villagers believed that those people's unethical conduct would be their sin, or karma according to Buddhist belief, and that they would eventually have to pay back in some way. For instance, one villager who could not walk properly without a walker after being hospitalized for months, was said by the villagers to deserve this disability because they had previously forged title deeds in order to sell local property to a greedy businessman. The karmic logic also provides opportunity for an alternative explanation of the Ban Khun Samut Chin community's struggle with coastal erosion (cf. Gamburd, 2013, on similar dynamics in post-Tsunami Sri Lanka). In one meeting, a local government officer tried to console the villagers, saying that they had tried their best to save the community; if it, however, turned out to be unsuccessful, that was because of their collective immoral behaviour in prior incarnations. There was nothing else that they could do, but accept their fate. As an atheist, I found this statement rather disturbing.

In addition to being kind towards her fellows, the village chief treats government officials as kings. She treats them with good food when they visit the community without prior invitation. When they leave, she also gives them local products as a gift. She seems to do this in the hope that those in power make decisions in favour of her community. Some villagers say that some officials really take advantage of her

asking for many kilograms of free blood cockles. Though some villagers are unhappy about that unfair relationship, they think it is necessary. They do not see it as corruption but as a way to express their gratitude for the help obtained from government officials. One villager told me that those in power are commonly corrupted one way or another but they did not mind that, and they were willing to support, or vote for, anyone who would be likely to help their community.

4.3 Conclusion

Understanding livelihood context and resources of the community, as well as the existing institutional arrangement, can help guide effective interventions in community adaptation to disaster. The Ban Khun Samut Chin livelihood framework, presented in this chapter, combined with the integrative analysis of the environmental knowledge production within the Thai society and social interactions of the community members which will be explored in Chapters Five and Six, respectively, could help in the challenging process of interventions, by highlighting the key issues, questions and contradictions, as well as pointing towards areas where sustainable actions may proceed.

Chapter 5

Ecological Imaginations and Commitments of Various Stakeholders

This chapter presents the different perspectives taken from the various social actors that were engaged in environmental activities in the study area. My fieldwork has shown that although the local people had been living with coastal erosion for decades, they had no clear concept of what “coastal erosion” entailed until the year 2006 when a group of scientists from Chulalongkorn University conducted a research project in their community. This group of scholars framed coastal erosion as the primary environmental problem threatening the community and developed various projections about possible futures for the village. Through interactions with the research team, members of the community began to understand the underlying causes and effects of the coastal erosion. They also began to connect these to a broader set of environmental and political issues.

However, the Chulalongkorn research team was not the only group of social actors that contributed to the community’s understanding of the causes of their local environmental problems, or about the level of risk they faced and the possible interventions they might seek to employ. Scientists were the first group to make claims about the severe coastal erosion that was affecting the community and to address this problem. However, government agencies, interested media outlets, and local people themselves did not accept their explanations without question. Various social groups each developed their own narrative about the rapid ecological changes

in Ban Khun Samut Chin village. These narratives sometimes corroborated and sometimes contrasted with one another.

This chapter traces how Ban Khun Samut Chin villagers had been exposed to, and involved in, the construction of these different narratives, through consecutive waves of intervention by different external stakeholder groups. I focus on two main periods in this chapter. Firstly, I explore events that occurred prior to 2006, a year when interest in the village from external stakeholders intensified. It was in 2006, for example, that the group of scientists from Chulalongkorn University came to conduct research in the village. From then on, the village was subjected to regular visits by external parties, from documentary filmmakers to different groups of expert researchers. These were not only from Chulalongkorn but also from the Dhonburi Rajabhat University and the University of the Thai Chamber of Commerce. The first part of this chapter focuses on the period before 2006 and attempts to reconstruct the villagers' understanding of the changing landscape that was affecting their community before the onset of more sustained contact by external stakeholders. In the second part of this chapter, I focus on the period after 2006 by exploring how various social groups interacted with the community: key academics, various media outlets, popular organisations from the Upper Gulf of Thailand coastal region and local government agencies. This section assesses the motivations, visions and commitments of these external stakeholders. How the community had negotiated these external perspectives in constructing their own sophisticated environmental knowledge by adding new dimensions to possible future livelihood strategies, will be explored later on in Chapter Six.

5.1 Pre-Intervention

Ban Khun Samut Chin village had been facing coastal erosion for more than half a century. However, the erosion had become severe only in the last three decades. From my conversations with a number of the villagers, mainly those actively involved in the community environmental movement, I understood that members of the community had started operations to help themselves in the era before 2006. This involved building structures to protect their houses and ponds from coastal erosion, for example digging soil from the ponds and putting it in bags which they then laid along the coastline, and building walls made out of large stones, concrete and electrical poles.

Prior to waves of intervention from external stakeholders that had begun in 2006, there were two incidents recalled by the community as the major events that had altered the landscape of the village. One was Typhoon Gay, in 1989. I witnessed the village chief telling visitors to the community that Typhoon Gay had not only destroyed lives and property in Southern Thailand, it had also transformed their own coastline along the Upper Gulf of Thailand. The second disastrous event was Typhoon Linda, which hit Thailand in 1997. In one TV programme, *Real People, Real Voice*, the village chief described her experience of evacuating from her house the year that Linda hit the coast (Watintaram, 2011e). She said that her house had been flooded and washed into the sea. Villagers had had to stay at the local school and

health centre; they had lost almost everything. Other villagers told me that after Typhoon Linda they had been forced to rebuild their houses further inland.

According to the World Meteorological Organization (WMO, 2012), a typhoon is a storm phenomenon characterized by a low-pressure centre, surrounded by a spiral arrangement of thunderstorms that produce a maximum sustained wind speed (near centre) exceeding 118 kilometres per hour (km/h) and heavy rain.

Vongvisessomjai (2007) categorizes cyclone disasters in Thailand into two groups: (i) disasters due to strong winds and, (ii) disasters due to torrential rainfall over high mountains, which cause severe floods and landslides. He studied characteristics of the five most disastrous tropical cyclones, which caused the strongest winds and surges in the Gulf of Thailand during the second half of the 20th century, from 1951 to 2006. Those tropical cyclones were, (i) Tropical Storm Vae which attacked the Upper Gulf of Thailand in 1952; (ii) Tropical Storm Harriet in 1962, which surged in the Laem Talumpuk area located in Nakorn Sri Thammarat province in the South, causing 769 deaths; (iii) Tropical Depression Ruth in 1970, which attacked Samui Island and coastline of Surat Thani and Chumphon provinces in the South; (iv) Typhoon Gay, which caused landfall that destroyed the Southern province of Chumphon in 1989 with massive loss of life either by drowning or due to flying debris; and, (v) Typhoon Linda in 1997 struck at Thupsake, Prachuap Khiri Khan province and caused a serious threat to life as well as property (Vongvisessomjai, 2007; AIPA, 2011).

In 1989, Typhoon Gay, which had originated in the southern part of the Gulf of Thailand as a depression, rapidly intensified to a tropical storm. It destroyed agricultural lands totalling about 183,000 hectares, killing over 500 and directly affecting another 154,000 people. Nine years later, Typhoon Linda caused floods and strong winds that covered large areas of agricultural land and fisheries. Formed in a westward pattern in the South China Sea, Linda was one of the worst storms to hit Vietnam. After devastating Southern Vietnam in the first two days of November 1997, it moved across the southern tip of Vietnam and hit Thailand's southern coastal provinces on the third of November, causing deaths of 30 people, while leaving another 102 people missing, and more than 64,000 hectares of agricultural land destroyed (Phaksopa & Sojisuporn, 2006; Vongvisessomjai, 2007). Both typhoons are widely known to have caused enormous damage along the coast of Thailand's Southern provinces; however, fewer people understood that the areas along the Upper Gulf of Thailand were also severely affected. Typhoon Linda, for example, caused an increased maximum wave height of four metres and maximum storm surge height of 0.6 metres in the Upper Gulf (Vongvisessomjai, 2007). The village chief often mentioned this when she gave talks to visitors, or interviews on TV programmes. She repeatedly told people that it was not only the Southern provinces that had been damaged by the destructive storms, the Upper Gulf area had also been affected. The typhoons caused higher numbers of casualties and more damage in the Southern provinces but the impact of the typhoons in the Upper Gulf region was also profound in places such as Ban Khun Samut Chin. Although there were no casualties in her village or in neighbouring areas and they received less attention from the government in the aftermath of the storms, the shoreline in Ban

Khun Samut Chin and nearby villages was severely degraded by significant loss of land because of two cyclones that generated strong winds and caused powerful waves.

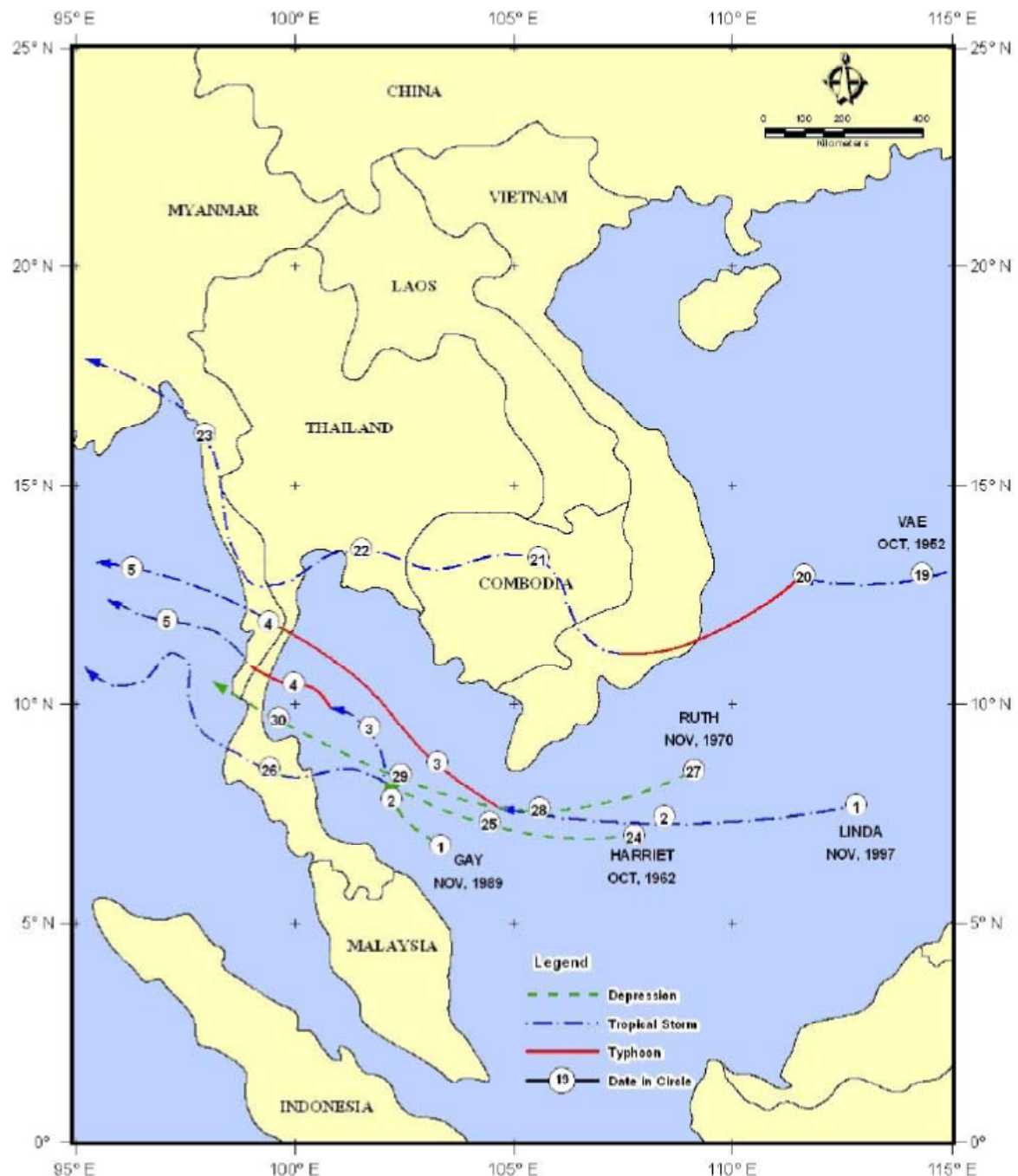


Figure 5.1: Tracks of Five Most Disastrous Tropical Cyclones over Thailand²⁵

²⁵ Source: Vongvisessomjai, 2009: 216

Disasters vary in origin and character. Floods and typhoons are natural in origin and have relatively acute onset. Their immediate impact is also relatively short. Other natural disasters, such as desertification and coastal erosion have more gradual onset and have longer-lasting impact. Floods pose by far the greatest threat to Thailand, influencing the entire country with varying degrees of risk. All areas of the country are severely impacted by floods, in terms of mortality and loss of GDP, whereas cyclones pose a minor risk in the northern areas. For instance, between 2002 and 2010 floods killed more than 1,000 people and brought damage and loss of more than 0.8 billion GBP in economic terms, which outpaced the damage caused by all other disasters combined during the period (AIPA, 2011). The government has therefore always been more concerned about floods and cyclone-related floods and landslides. Likewise, the media usually focused attention on immediately life-threatening disasters rather than those that cause gradual destruction with no striking, immediate consequence.

For a long time, the villagers of Samut Khun Chin of the Upper Gulf of Thailand responded to the environmental changes they were experiencing by moving ever further inland. After each severe attack by a tropical storm, the villagers of Ban Khun Samut Chin simply accepted their fate and responded by moving their houses further inland. This information was confirmed over and over again in various interviews that the villagers had with TV programmes, copies of which had been retained by the village chief in her DVD collection. In one interview from the program, *Seeking Samut Prakan*, the village chief herself explained the following:

We moved about one kilometre or more each time. We won't build our house so close [to the coastline] because we know. Before building the house, we had to build a mound like a small hill. Then we could build [it] on that hill. About four to five years later the hill would subside; it got lower. Later on it would be flooded. In the old days, the flood couldn't reach the floor. When I was young [the village chief was born in the late 1950s], high tides only hit the shoreline; the seawater flowed into the canal -- into the gulf -- only for 2-3 hours and then flowed back. There was no effect on the land. At that time, we even fought over the water, but not now. The coast has eroded further inland. Only in my lifetime, about five to almost six kilometres [of land from the shoreline] has collapsed. High tides don't just hit the shore and flow back; our land is inundated. Water flows everywhere; we don't know what to protect.

(Watintaram, 2011b; Author's translation)

Other villagers confirmed that the devastation wreaked by Typhoon Linda compelled them to seek respite by moving further inland. The storm washed many houses into the sea. Many villagers fled from the disaster to start a new life. Those who stayed had to rebuild their houses. This time there was not much land left for them to move further inland, since the back of the village faced a canal. One assistant village chief told me that locals developed a remedy by collecting empty shellfish shells, putting them in sacks and then laying sacks of shells along the coast. They sought help from the government, he said, but were told that the authorities could not interfere with private land. Some villagers who had owned significant parcels of land at the time decided to sell their land in the realisation that sooner or later they would not be able to make any use of it anyway. To sum up, the physical effects of a so-called “natural” hazard may be confined to a small area but spatiality of risks and vulnerabilities can be identified far beyond the place where a hazard occurs, affecting not only local communities, but extending to broader networks and thus impacting on regional and national economies (Rigg et al., 2008).

Very little attention had been paid to coastal erosion in the study area by the government until 2004, when a tsunami occurred in the Indian Ocean. On 26 December, a tsunami struck Thailand, causing loss of life as well as major damage to property, the environment and the economy. It was said to be the worst natural disaster in Thailand's history. According to a June 2006 report by the International Centre for Migration and Health, the tsunami was a terrible reminder that natural disasters appear to be occurring with ever greater frequency and that the scope of their impact tends to be more far-reaching than ever before: According to the report, the tsunami of 26 December 2004 was one of the largest natural disasters in recorded history: "It affected at least seven countries, killed over 250,000 people, produced mass widespread injury and long-term disability, and forced at least one and a half million people from their homes" (ICMH, 2006: 1). In Thailand, six Southern provinces (Krabi, Phang Nga, Phuket, Ranong, Satun and Trang) were affected, 8,000 or more lives were lost, and the tsunami contributed to economic loss of one billion GBP, or around 1.5 percent of the country's GDP (AIPA, 2011; Scheper, 2006).

The 2004 tsunami was a wakeup call. It demonstrated the value of locally coordinated response activities and highlighted the need for an up-to-date national disaster management plan. According to the country's report on disaster response management to the third ASEAN Inter-Parliamentary Assembly Caucus (AIPA, 2011), Thailand had revealed its disaster management system to the international community for the first time when the tsunami hit. Response, rehabilitation and

recovery after the tsunami had been guided by the Civil Defence Act 1979 and the Civil Defence Plan 2002 (Scheper, 2006).

The national response to the tsunami however highlighted weaknesses in Thailand's disaster response capacity. The Civil Defence Act 1979 had outdated features after about 30 years of use, so it was terminated in 2007 when the Disaster Prevention and Mitigation Act of 2007 was introduced. Thailand's disaster management system was based on the 2007 Act ever since. According to the new law, the National Committee on Disaster Prevention and Mitigation (NCDPM) served as a policy making body with the Prime Minister as its chairperson and 34 designated committee members from ministries, agencies and organisations related to disaster management. The Minister of Interior is, by law, the Commander-in-chief for disaster emergency response, particularly in the case of a large-scale disaster. The Director-General of the Department of Disaster Prevention and Mitigation was, by law, the Secretary General of the NCDPM and disaster the Incident Commander when a disaster takes place. The law basically detailed provisions regarding institutional arrangements for disaster management (AIPA, 2011).

However, in the case of more gradual, long-term ecological challenges such as coastal erosion, communities like Ban Khun Samut Chin had little access to direct help from the national government, even after 2006. After suffering years of severe erosion, especially in the aftermath of the two typhoons described above, there were several attempts to decelerate the erosion process in the study area. From conversations with villagers, I learned that they had begun to seek outside help.

They had written a letter to the Provincial Electricity Authority asking for old electric poles that were no longer in use. The poles were donated for free but the villagers had had to pay for shipment. The transport cost was very high as the means of transport to the village was by boat or ship. The electric poles were used to build a wall protecting the temple from strong waves. The poles were struck into the muddy beach taking the form of two parallel rows of fencing with enough space between them to pile up the spare poles to lie in parallel to the seabed. There were enough poles available to build one side of a wall but it was not long enough to fully protect the temple from erosion. The abbot decided to build concrete walls from rock and cement around the temple compound to delay erosion. Meanwhile, residents on the east side of the village used automobile tyres to build a wall, using a similar method to that employed for protection of the *Phra Chulachomklao* Fortress (or King Rama V Fortress), under the care of the Bangkok Naval Base. Tyres were provided by the Navy.

It was not until after 2004 that the central government got involved in supporting these efforts in the village. The central government had learned from a successful case in a neighbouring province that bamboo poles could provide an alternative solution. In that village, bamboo poles had been used to create barriers that trapped sediment from the seawater and prevented silt from being washed away (Jarungrattanapong & Manasboonphempool, 2009). Accordingly, the government developed projects to build bamboo fences to protect Ban Khun Samut Chin village. I had been told by environmental activists in the village that bamboo fences had not been very effective in their area and that they had only lasted for a few years. The

bamboo poles would break in the sea to produce dangerously sharp rubbish along the coast that could harm villagers while they were catching coastal animals. Some villagers told me that the government was corrupt and that it made money from their misery. They suspected that those in power were ordering low quality bamboo poles and providing them with a smaller number of bamboo poles than had been stated in the official government documents and that kick-backs were possibly being earned. That being said, the said villagers did not seem to have problems with corruption when they were the beneficiaries. Indeed, the practices of corruption in rural Thailand were embedded in patron-client relations, which placed local office holders, local politicians and influential households on the receiving end of corrupt systems (cf. Perera-Mubarak, 2012, on similar dynamics in post-Tsunami Sri Lanka).

5.2 Onset of Continuous Contact by External Stakeholders

The previous section explored disaster prevention efforts and early understandings of the situation in the study area before the direct intervention from external stakeholders that had gathered momentum after 2006. According to the village chief, previous assistance from the central government to Ban Khun Samut Chin village such as provision of the bamboo poles had been a part of larger effort to address the problem of coastal erosion in the Upper Gulf of Thailand area, in general. Help had not been targeted at Ban Khun Samut Chin village exclusively and it was not particularly sensitive to their specific problems.

After 2006, however, a number of different groups of external stakeholders began to make direct contact with the village and helping community members there to develop a much more sophisticated sense of the multiplicity of the ecological problems in their local area. These different sets of external stakeholders offered the community different ways of understanding not only the most important causes of coastal erosion and loss of biodiversity but also considered the outlook for saving the village and what kinds of political and technological interventions might be required if they were to secure their livelihoods there. In the following section, I discuss four sets of external stakeholders who had important roles in the village in the years since 2006. These consisted of academic researchers, national media outlets, popular organisations from other communities in the Upper Gulf of Thailand and local government agents.

5.2.1 Academics

Over the years, several research groups from various educational institutions came to conduct studies in the community. The local residents, however, were fascinated by one particular group, the Chulalongkorn University multi-disciplinary research team, possibly because the team had supported the villagers' own economic or political agendas. The team invented a breakwater model, the Khun Samut Chin 49A2, suitable for muddy coasts, to lessen the impacts of wind and waves along the community's coastline. This satisfied their wish to remain in the community and avoid relocation. In addition, the team's project attracted media attention and researchers took local people on field trips to visit other communities facing similar

problems for networking. The team also suggested that they develop facilities for tourism in the village.

The researchers from Chulalongkorn University, a renowned university in Thailand, came to the research area in 2006. The research team, led by Dr Thanawat Jarupongsakul, received a grant from the Thailand Research Fund (TRF) for a participatory action research project on coastal erosion management. Disaster risk management projects had been given top priority for research funding by the Thailand Research Fund, especially when they included the involvement of local people. The Chulalongkorn team selected Ban Khun Samut Chin as a research area because of the severity of coastal erosion there. It had been clear that the problem would need to be addressed soon if the village was to avoid being completely engulfed by the sea.

The main goal of the team was to build an engineering intervention to minimize the impact of coastal erosion on the muddy beach (Jarupongsakul et al., 2009). This pilot project included experts in geology, marine science, coastal engineering, meteorology, hydrology, coastal ecology, environmental economics, landscape architecture, property law and demography. The original project lasted for three years, starting from July 2006 and running until August 2009. The team not only developed a breakwater system as a technical prototype for wave dissipation but it also brought new ideas to the community.

Prior to collaboration with the research team, the community had not understood the why their land had been sinking into the sea so they had not seen themselves as active agents that could change the situation for themselves. This was evident in an interview that the village chief gave to a TV programme, *ThaiPBS Weekend*. When asked to explain how the community had worked together with the academics, she replied “They have been with us for several years, thanks to the Thailand Research Fund. We have learned not so long ago that the sediment comes from upstream. Sediment that has disappeared ... has decreased in ours was because of that [dam development upstream]” (024250871, 2011; author’s translation). This research team used the participatory research approach that provided an opportunity for the local community to take part as local researchers. I think this was partly due to the TRF, from which the team received research grant funding. This emphasises the importance of collaboration and interaction between development partners (TRF, 2014). From what I was told by local activists, the research team began by organised meetings with villagers, community leaders, and representatives from relevant localities as well as with central government agencies -- such as representatives from the Department of Marine and Coastal Resources, the Department of Mineral Resources, the Samut Prakan Provincial Office of Natural Resources and Environment, the Department of City Planning -- Bangkok Metropolitan Administrator, the World Bank and other coastal communities in the province of the study area. This was done to provide a forum for discussions between the various actors. Also, the team provided an opportunity for local people to become active participants as local researchers assisting the team to collect data.

Some of the researchers had lived in the village during the project to monitor the change from before to after construction of the concrete pole breakwater. The team had been highly trusted and respected by many of the villagers because they felt that they had learned a lot from the team. They had learned that, to some extent, dam development upstream had contributed to the reduction of sediment discharge. Through the research team's work, they had begun to learn about the interconnection of upstream and downstream ecosystems. They had also learned about pros and cons of the various options for engineering constructions applicable for mitigation of the impact of coastal erosion. When the central government had offered to provide the community with sand sausages, very long sand bags to place along the coastline, the research team took some villagers on a field trip to another coastal community that had experienced problems with the sausages. The Ban Khun Samut Chin villagers witnessed the problems first-hand and observed that these sand sausages were potentially harmful to mudflat species if sand leaked from the bags. Moreover, the team also took representatives from the study area to other coastal communities, which had incurred problems from coastal erosion. One of the researchers suggested that they officially organise a community natural resources conservation group, to get financial support from the government.

In addition to learning so much from the research team, a number of community members told me that they had really admired the research team for being humble. They often praised the team for its easy-going demeanour. These knowledgeable academics from the city got along well with the local community. They had no problems sleeping and eating in the open space used by the villagers as their

meeting hall. One of the team members, known in the village as Mr Kong, spent months living in the community and later died drowning in the ocean while working on the project. I heard a lot about him. Some of the locals told me that the villagers had loved him as if he was their own family member. He had suggested to the village chief's son, who served as leader of the local researchers, that he should start a homestay business to attract tourists. Mr Kong was so loved that the first homestay bungalow, the only one in existence during my fieldwork, was named after him. The fact that local people were actively participating in the project seemed to make them feel part of the team. Villagers were also invited to present the team's research results at the Thailand Research Fund along with team members. They seemed very proud of this, telling me that even those researchers, who held PhD degrees, had listened to their opinions and accepted their naming systems. For example, the researchers used local names for two species of mangrove tree when communicating with local people, although among themselves the scientists used botanical references. Once they had felt accepted by the scholars as development partners, many of the villagers were willing to follow the team with loyalty and affection.

The project itself also provided fruitful results. Monitoring the sea floor at the pilot site before and after construction of the breakwater showed considerable erosion of 2-3 centimetres per month in the intertidal zone before construction was reversed, resulting in sediment accumulation of 7-10 centimetres per month landward of the coastal barrier after construction (Jarupongsakul et al., 2009). Nevertheless, erosion continued seaward of the barrier. The empirical data was backed up by physical and

numerical simulations demonstrating that high wave energy, which potentially causes erosion, decreased landward of the barriers. Most villagers seemed to believe wholeheartedly that the breakwater model invented by the Chulalongkorn team was the best solution for their village. After the first set of bamboo poles began to deteriorate, the central government had proposed a project to replace them with a new set. The village chief told me that she had very much wanted to turn down the offer of help. However, the authorities had insisted that she accept it, telling in a meeting that if her village did not accept the project, then her neighbouring villages would not get help either.

In spite of the success of the breakwater experiment, I was told that villagers were disappointed that construction and transportation costs were so incredibly high that the central and local governments could not devote their budget to helping just one village with this kind of intervention. Even so, some by-products of the project have been noteworthy. Firstly, it provided an investment model for cost sharing with beneficiaries (Jarupongsakul et al., 2009). In addition to the grant from the TRF, the Samut Prakan Provincial Office, a government agency at the regional level who was responsible for the study area, became involved in the project by contributing funds to the breakwater construction. More importantly, the project empowered local people. The community members who were actively involved in the project were proud that their thoughts and ideas were being valued by more educated academics. Although researchers “are not passive facilitators of local knowledge production and planning” as pointed out by Mosse (2001: 19), participatory processes evidently served to boost self esteem among some of the villagers. Some

of those who were referred to by the research team as local researchers gave me the impression that they believed their future was, to some extent, in their own hands so they needed to be proactive to save their community from coastal erosion (College of Population Studies, 2011). They began to realize their own potential to create social, economic, and human capital in the locality. This is demonstrated in the following conversation that I had with a local environmental activist:

A person who inspired the villagers to value local resources and set up a natural resources conservation group was Mr Kong or Mr Viman... um, Viman what, what, what is his surname ... Viman what ... you have to ask Auntie Morn [the village chief] what Bro Kong's surname is. His name is Mr Viman. He took us on field trips to Klong Khon and other communities that have similar resources to ours and paid out of his own pocket for fuel and other expenses for the trips. During the construction of the 49A2 breakwater, he usually spent time with us in Khun Samut village at weekends. Then we began to realize that those communities we had visited such as Chumphon, Prachuab, Pranburi, and Mae Klong, certainly do have resources but not as much as those of our village. Also, we have our selling points -- a temple and electric poles in the sea, etc. Bro Po [the village chief's son] thus has gathered some villagers to adopt Bro Kong's idea. In the beginning, we didn't intend to stop the dredging boats; we initially set up a group with the aim of afforestation. We had developed a webpage to do fundraising for afforestation and had got quite some good money transferred to the bank accounts of our group. When we became fairly successful with the afforestation project, we started to think about ending dredging boats. As the villagers had no occupation after the dredging boats had shovelled our cockles, there were thieves stealing crabs and cockles from aquaculture ponds. If we could work with the community to manage this [cockle] resource, the stealing cases would drop from 90% to no more than 10%. This was all the idea of Bro Po and late Bro Kong; we have to praise them for that.

The knowledge and confidence gained through engagement with the Chulalongkorn academic team helped the Ban Khun Samut Chin community to become more proactive in dealing with environmental changes. Also, the research team, by chance, helped the community to develop a network of communities affected by coastal erosion as the team took some community members on field trips to other

communities facing the same problem. In addition, the project raised awareness of coastal erosion among the general public, in general, and the local people, in particular. The case supports a social constructionist perspective of environmental problems that the construction of environmental issues is a matter of the politics of knowledge production, rather than a simple reflection of biophysical reality. The research team helped to transform previously private problems of coastal erosion faced by the community into public issues through official recognition.

5.2.2 Media

The media I discuss here are those that I had access to via the village chief's DVD collection. They were Thai-language TV programmes filmed in the village regarding coastal erosion issues. Some of them had been broadcast on mainstream channels and, others aired on cable channels. Unfortunately, I have been unable to identify the date of some of these programmes or the name of the programme. However, given that I was told by the village chief that the media arrived after the Chulalongkorn research team and before I came to the village, those TV programmes that I analyse here were all broadcast sometime between 2006 and 2011.

While the academics argued that coastal erosion in the study area was primarily caused by a reduction of sediment discharge caused by dam development upstream and groundwater usage (Jarupongsakul et al., 2009; Saito et al., 2007), the media tended to depict the problem as a consequence of climate change in order to catch the public's attention with an issue that was high on the global agenda. One of TV

programmes, *Suwannabhumi Station*, named their episode on Ban Khun Samut Chin *Global Warming* (Karunanon, 2009); another named their broadcast *Fighting Global Warming* (Watintaram, 2011a). In one programme, the leader of the Chulalongkorn research team, Dr Thanawat Jarupongsakul, was asked a leading question by a TV presenter about whether or not this evidence of a village disappearing into the sea was caused by global warming. He had to acknowledge that global warming was “likely to have a link to coastal erosion” (Watintaram, 2011f). The presenter ended the programme by asking the Dr Thanawat to elaborate on the impact of “global warming” on the Upper Gulf of Thailand. Dr Thanawat responded that if nothing were to be done then another 1.3 kilometres of Ban Khun Samut Chin would disappear in the next 20 years, which meant that the whole village would be gone. The presenter concluded with a final comment urging the Thai people that it was time for them to think about what needed to be done, as the world was changing so quickly.²⁶ In another programme, *Bangkok under Water*, global warming was also mentioned as the key factor affecting coastal erosion in Ban Khun Samut Chin (Watintaram, 2011d). The media coverage on coastal erosion in the study area frequently highlighted climate change as a key causal factor in order to attract the interest of a national audience.

Another theme repeatedly mentioned in a number of the TV shows was mangrove deforestation in the study area. Mangrove deforestation had magnified the processes of land loss by natural causes, such as wind or water. In turn, coastal

²⁶ I was unable to determine the name or the broadcast date of this programme, however it was presented by a very well-known TV presenter, Sanya Kunakorn.

erosion reinforced mangrove deforestation as monsoons can tear down sparse trees more easily than trees in a dense forest, as members of the Ban Khun Samut Chin community had themselves observed. Mangrove forests play an important role in the lives of people living in coastal areas. They provide habitats for many marine species with high economic value, including shrimps and crab. From conversations with various villagers, I learned that deforestation of mangroves in Ban Khun Samut Chin was to some extent intentional, as land was cleared for aquaculture ponds and made safe for footpaths with good visibility to protect people against robbery, as well as accidental, such as through damage to the mangroves while catching mud crabs. The villagers however were initially unaware of the consequences; they had not realized that mangrove deforestation could lead to habitat loss for many coastal species and cause a decrease their populations.

In addition, much of the media coverage focused on community spirit. As the discussion in Chapter Two has made clear, attention to community solidarity had been an important trend within development efforts in Thailand since the mid-1990s. In framing stories about the village and its ecological challenges, the media jumped on the bandwagon of localism. Many TV programmes portrayed Ban Khun Samut Chin as a homogeneous social group that shared a common interest in protecting their village. In most of the shows, presenters only talked to the village chief, the abbot at the local Buddhist temple and other high profile local activists. The rest of the community were portrayed as just one group comprising individuals with a common goal.

Moreover, those TV shows helped to promote tourism in the community. The main tourist attraction seemed to be the community temple, *Wat Khun Samut Taraward*. The temple had been located on the shore, however, at the time of my fieldwork, it was perched on an artificially protected headland. There was one TV show in the village chief's collection called *Thailand Backpacker*. It was a travelling programme in which the presenter followed a group of architecture students to Ban Khun Samut Chin village to participate in the mangrove reforestation project there. The programme gave the audience ideas about how to travel to the village and what activities visitors could do there. In another programme, *Ignite*, the presenter visited the village during the annual celebration of the sacred local shrine, *Noom Noi Loi Chai Shrine*, which was considered the heart and soul of the community (Watintaram, 2011c). The shrine united its members, not only those remaining in the village after coastal erosion but included those who had fled the disaster for a new start elsewhere. Shows like this one elaborated the blessings of the shrine and helped to enhance its attraction for tourists to the village. During my stay, I witnessed several groups of visitors making a pilgrimage to the shrine to offer their prayers and to make wishes.

More recent programmes seemed to focus on travelling rather than on the problem of coastal erosion itself. After my fieldwork visit, two more travelling programmes were filmed in the village, namely *Lovers on Tour* and *Overnight with Superstars* (Polyplus Entertainment, 2012a; 2012b; 2012c). The village chief's son recorded the shows and uploaded them on the website YouTube, where they could be accessed by the general public. I was told by one of the local activists that those two

programmes really helped to boost the economy of the village. More homestay bungalows were built. This benefitted not only the owners of the bungalows but the community natural resources conversation group, which took a percentage of the owners' income. This activist, along with others who were members of the group, became local tour guides. The group also hired an elderly couple with no apparent source of regular income to pick up rubbish along the tourist trails and to keep the village clean. This framing of the community as a tourist destination with an active economy oriented around tourist visits provided a new outlook for the village. Members of the community were transformed in this new framing from hopeless victims of coastal erosion into agents for change, rebuilding their lives and community through the opportunities that tourism had brought them. This kind of process has been observed in other crisis settings. For example, the case of a Liberian woman who, in her social navigation of war zones, had adopted a strategy of occasionally representing herself as a victim in order to take humanitarian aid, but at other times took up arms in order to confront conflicting challenges (Utas, 2005).

5.2.3 Popular Organisations

Through direct interactions with academics and the media, members of the Ban Khun Samut Chin community were empowered to get involved in the development of a network comprising representatives of other communities that were also challenged by coastal erosion. The network was known as the Upper Gulf of Thailand Conservation Network. One TV show in the village chief's collection, *Public Forum*, had an episode on the network (Vaelweerakoupt, 2010). I found it a useful

source of background information about the group. A local activist told me that the network had invited the producer to attend its meeting in order to have its activities promoted. The Upper Gulf of Thailand Conservation Network originated in a community from a neighbouring province of Ban Khun Samut Chin village, Kok Kham sub-district, Samut Sakhon province, which also faced the problem of coastal erosion. The leader of that original group, known as Chief Moo, was the village chief in that community. The group received attention from a regional governmental organisation, the Office of Marine and Coastal Resources Conservation. Together they had developed a learning centre for coastal erosion in the area. Chief Moo dedicated 0.8 hectares of his land for the centre. The regional government established a new office called the Marine and Coastal Resources Conservation Centre 2. The office had responsibilities to conserve, restore, monitor and protect marine and coastal resources in six provinces located on the Upper Gulf of Thailand, namely Chachoengsao, Samut Prakan, Bangkok, Samut Sakhon, Samut Songkhram and Phetchaburi. The Ban Khun Samut Chin conservation group became a member of the network after a field trip to their learning centre organised by the Chulalongkorn research team. The network had developed as a coalition of communities challenged by coastal erosion in those six provinces, central as well as government representatives from regional and local governmental organisations, and non-governmental organisations.

Despite the fact that community members of the Upper Gulf of Thailand Conservation Network had started their collaboration in response to issues of coastal erosion, they had moved on to address other problems. I had a chance to

observe the network's bi-monthly meeting where representatives of different communities updated each other. They discussed the current environmental problems that were threatening their livelihoods, and some potential solutions. One of the common threats facing members of the network related to unsustainable fishing, particularly cockle fishing.

Cockle fishing and farming were among the most important sources of income for the Ban Khun Samut Chin residents. The blood cockle is a species of ark clam whose name is derived from the red haemoglobin liquid inside. Cockles are bivalves with shells that are equal in size and form, thick and solid, ovate and strongly inflated (Nakraksa, 2009). The species is found throughout the Indo-Pacific region from eastern Africa to Australia to Polynesia to Japan. It lives mainly in the intertidal zone at a depth of 30 centimetres, within two kilometres from shoreline, burrowed down into sand or mud. Adult size is about 5-6 centimetres long and 4-5 centimetres wide. Blood cockles breed by themselves. Fishing folk have to wait for mature cockles living in nature to lay eggs, and for the babies to hatch from the eggs and grow until they are about 60 days old, before they can be caught and sold to aquaculture pond owners. The baby cockles are then nurtured for about one and half years until they reach a weight of roughly 80 cockles per kilogram, at which point they can be sold for consumption.

The blood cockle is a popular species in Thailand. According to the Food and Agriculture Organization of the United Nations (Suanrattanachai, Tiaye & Theparoonrat, 2011), national consumption of this bivalve far exceeded local

production. In order to address the high demand for blood cockles, Thailand had been importing several thousand metric tons of marketable-sized cockles and seeds from Malaysia each year. At the same time, the Department of Fisheries of Thailand had been promoting the culture of blood cockle in many coastal provinces along the Gulf of Thailand. Due to its high economic value, some commercial as well as small-scale cockle fisheries have heavily exploited this commodity. Some fishing folk became greedy, bought dredgers and tried to seize all the cockle wealth from the sea for themselves.

In a community such as that in the research area where residents' livelihoods are heavily depended on natural resources, any change or depletion of a natural resource will have a great affect on their lives. The villagers of Ban Khun Samut Chin observed that deforestation of the mangroves for aquaculture ponds in recent decades, along with overexploitation of aquatic resources in the study area, had led to dramatic decline in numbers of various aquatic species and populations of some key species, particularly the blood cockle. Some major factors that influence the growth of blood cockles are food, temperature, water salinity and water quality. Vanishing mangrove vegetation due to deforestation for shrimp ponds and coastal erosion have directly contributed to a decrease in food supply for cockles, and thus have led to a reduction in the number of baby cockles available for capture. In addition to conditions in the coastal ecosystem, water management along the river was also crucial. Wastewater released along the river had undoubtedly degraded quality of the water quality in coastal areas near the river mouth that had also contributed to the decline in baby cockle population.

Scarcity of the blood cockle, as well as other aquatic species, had reduced sources of income for the local residents. This consideration, in combination with high expenses as villagers needed to rebuild their houses due to coastal erosion, caused several families to emigrate. This is evidenced in the story the village chief told on the TV show, *Suwannabhumi Station*, broadcast in June 2009 (Karunanon, 2009).

She explains that Ban Khun Samut Chin:

...is an ancient village of more than 100-200 years old with a self-sufficient lifestyle. People aged over 100 years old are still healthy and not forgetful. Those in their 80s or 90s still do coastal fishing, collecting shellfish and crabs. We live in a close knit community. We started facing difficulties when the [sea] bank eroded and we had to rebuild a house several times. Not having money, without a boat, only a hand net, a mud-ski board, and plastic basket are essential to make a living; people collect shellfishes and earn 200-500 baht [approximately 4-10 pounds]. This is enough to live a sufficient life. There used to be 200 households [in the village]. Now there are 168 households in the census but only 110 households actually lived here. The population has shrunk from 600 to 400 people. ... Coastal erosion has led to land sinking into the sea. ... People had no land for home rebuilding and couldn't make a living -- not only the banks had been collapsing but also the seafloor had become 2-3 metres deeper.

(Author's translation)

The village chief of Ban Khun Samut Chin often told visitors to the village about the good old days in her community when there were coastal resources were abundant. At that time she could not have imagined that one day there would be a considerable drop in marine resources. She admitted with guilt that her family used to abuse their wealth in marine resources by wasting lots of food. They would often cook a very large pot of fish that they had caught, but could not finish it within a few days. They would then throw the food away, and then cook another dish from

freshly caught seafood, since they were blessed with rich resources and it had seemed like they would last for generations.

In parallel with increasingly powerful monsoons that had been hitting the coastal community year after year, populations of aquatic resources had declined over years due to gradual sediment reduction. In combination with illegal blood cockle dredging, this posed a serious threat to the livelihoods of the local residents. The reduction of sediment, which was the habitat of the cockle along the coastline, resulted in a decline of the cockle populations. The old harvesting methods of hand picking cockles one by one from the muddy beach had become relatively less effective as a result of population decline. Some fishing households with a boat who could afford to buy dredging devices invested in them. These devices were a kind of dredge that was dragged along the bottom of the sea by a fishing boat to collect targeted edible bottom-dwelling species, or cockle seeds. The dredge was then winched up and back into the boat where it was emptied. Villagers had begun using the device without realising that this new and effective method of collection was in fact an unsustainable exploitation of resources in the marine ecosystem that would affect the livelihood of the whole village in the long run.

One villager told me that the local people has been unaware that dredging was an unsustainable method until they took fieldtrips to other coastal communities with similar natural resources and facing similar problems. Their initial purpose had been to learn different techniques of coastal erosion mitigation. Yet, they witnessed local residents in some villages who had already over-exploited their aquatic resources

some time ago by using devices, such as cockle dredgers. Consequently, blood cockle resources in those areas had deteriorated and many villagers were experiencing hardship and had no means of livelihood so they had had to leave their villages. Consequently, the villagers in my study area learnt that their heavy exploitation of blood cockles with dredgers would, sooner or later, have a serious affect on their livelihoods. The Chulalongkorn research team had helped to facilitate this insight.

In response to this new knowledge, the local leaders of Ban Khun Samut Chin called for a village meeting, asking villagers to stop using the dredging method of cockle collection. They explained that dredgers might allow villagers to collect cockles from the mudflat more quickly and with less effort but the method increased pressure on the oceans. When a dredger scooped into the mudflat, it took away not only cockle babies but also lifted mud and silt from the seabed. Dredging machines vary in form, from those employing a single bivalve or clam-shell scoop, to those with a series of scoops on an endless chain or machines with suction apparatus. When lowered into the mud, the machines would drag along whatever was in the way, and a powerful dredging machine could leave “a deep channel” in the sea bed, explained the villager. Inevitably, some of the marine life captured by this type of fishing gear is undersized, and should ideally be left untouched for reproduction in nature. Some of the by-catch might even consist of endangered species. Moreover, dredging methods can disturb critical marine habitats. Muddy areas next to mangrove forests, such as the coastline at the research location, serve as spawning, nursing and sheltering grounds for many aquatic resources. With the loss of such crucial habitats,

a wide array of organisms struggle to survive, let alone thrive. Aggressive harvesting has dramatic consequences for a local marine ecosystem and eventually there is a negative impact on the livelihoods of local residents.

As dredging techniques were destructive, compared to traditional collection methods that employed bare hands, the local natural resources conservation group revealed that attention had been paid and efforts exerted to safeguard those designated cockle conservation areas, in order to enhance recovery of the species. Staff members of the Marine and Coastal Resources Conservation Centre 2, which had been in partnership with the Upper Gulf of Thailand Conservation Network from its founding, were very helpful to the Ban Khun Samut Chin conservation group, by providing support that enabled them to execute their conservation activities. The group had established its own regulations to protect the cockles from irresponsible harvesting methods. The first regulation was cockle size restriction, whereby the local residents were not allowed to catch cockles smaller than six millimetres. Coastal fishers were asked to monitor their peers, and pond owners were asked to boycott illegal fisheries. The second regulation involved prohibiting the use of illegal fishing gear, dredging machines in particular, in the designated cockle fishing grounds, three kilometres from the coastline. Both regulations were in accordance with the Thai fishery act. In order to implement the second regulation, the group set up a surveillance unit to monitor illegal fishing operations and encroachment into conservation areas. A villager who had been part of the surveillance unit told me that the group members learnt about the fishery law from training organised by

their regional office of the Department of Marine and Coastal Resources, the Marine and Coastal Resources Conservation Centre 2.

During the study period, illegal cockle collection in the designated cockle conservation areas was mostly by external stakeholders. At night, boats would invade the area and rake the mud for blood cockles. The technique employed by external stakeholders allowed them to finish their job very quickly and ensure that they had caught all the cockles, both large and small. The group once caught dredging boats that were invading their conservation area. These outsiders appeared to be part of a commercial cockle fishery, since small-scale fishers would not have been able to afford to hire several crews to work on the boat, or to pay for fuel to cross the gulf.

The community surveillance unit monitored with a tentative schedule. In addition to social sanctions imposed on local residents found violating the regulation, the local conservation group implemented the regulation by seizing any fishing boat found to have encroached into the said area. At that time, two fishing boats had been seized by the community. The arrested fishing folk were sent to a police station, and each case was later filed at court. Normally, offenders would be required to pay a fine before they could redeem their fishing equipment. If an arrested fisherman could not comply with the requirements, the group would sell all the seized fishing assets, and the money obtained would be used to meet the operating costs of the group. Patrolling illegal fishing could be dangerous, as illegal commercial cockle fishing was a high-stakes business. Accordingly, members of the local surveillance operation told

me that they were well-equipped with guns for self-protection. Nonetheless, the local group received excellent backup from the Marine and Coastal Resources Conservation Centre 2. The group members were told, time after time, not to hesitate to call the centre whenever they needed help to chase or arrest any dredging intruders.

Another issue that the Upper Gulf of Thailand Conservation Network discussed during the meeting I attended was their lack of land entitlement. This problem posed difficulties for livelihoods of members of the Ban Khun Samut Chin community, as described in Chapter Three. Most of the land in the study area was actually owned by external stakeholders whose predecessors had been coastal fishermen. The village chief told me that local people in the past had valued marine resources more than land and that some had even traded their land for fishing nets.

Although marine resources were less abundant than they had been in the past, the village was still rich in natural resources. One villager, who had moved to the village after marrying a local resident, said “I have been to so many places for I had been working on a fishing boat since a very young age, I had never seen anywhere as rich in coastal resources as this village.” Another villager who had moved in a few years ago through knowing someone in the village told me “It’s easy to make a living here.” Another woman who came from Northeastern Thailand, which was considered to be the poorest region in the country in terms of natural resources, and who had moved into the village through marriage said, “The village has plenty of natural resources. If one is not lazy, one won’t be starving to death.” The village

chief pointed out that “The most serious problem is the lack of land entitlement. In the year 1977, the villagers still had land allocated by the government but *Khun Samut Chin* people didn’t bother about it for we could making a living from the sea. Those who had land possession documents were *Khun Samut Thai* people (of *Na Klua* sub-district). *Khun Samut Chin* people were not interest in owning the land. We lived our lives lavishly having no idea that the environment would change.”

The village chief said that many of those who had owned land had lost it to the sea due to coastal erosion. The villagers had moved inland several times and now the majority of them had built their houses on land owned by external stakeholders. Some of those external stakeholders had inherited land from their ancestors, who had once lived on the land. However, the present landowners had been living elsewhere themselves and had not been using the land. Some landowners were businesspeople who had bought land from an original landowner. According to the villagers, many landowners were very generous. Some let land at low cost, allowing villagers to construct houses and/or aquatic ponds. Others allowed villagers to use their land free of charge.

Nevertheless, the fact that they did not own the land had implications for land protection. I remember a gale one night during my stay for fieldwork. Several mangrove trees standing along the coastline were torn down. After the incident, I came across a villager who was using land where mangrove trees had fallen that day. She told me that the landowner had decided to take down all the trees and build a wall to protect the land from strong winds and waves instead. She did not

seem to agree with the landowner, for she had learned that a mangrove forest was the best protection for coastal erosion and that had been the reason her brother had planted the mangrove trees along the coastline. But her family could not go against the landowner's decision. If land had been owned by the villagers themselves then they would have had more control over decisions that affected their livelihoods.

One coastal fisherman told me that when he mentioned to other villagers that it would be wonderful if all landowners along the coastline could spare some space near the coast for the community for mangrove reforestation, others had said that he was dreaming. It would be impossible for the people benefiting from the aquaculture ponds to give up their source of income for the mangrove forest that would only delay the coastal erosion that was bound to happen sooner or later.

Moreover, most of the land that had already sunk into the sea due to severe coastal erosion was claimed to be in the possession of one businessman. I was told that with the help of one villager, this businessman had used false documents to seek out a plot of land that had already fallen into the sea. He had then banned villagers from fishing on his land. The villagers had objected that the land sliding into the sea should become public space accessible to everyone and in accordance with the law. The businessman, however, argued that when the tide was high and this intertidal land turned into sea, the villagers could enter his land for coastal fishing, but during low tide, villagers should have no right to access his land. The villagers were definitely unhappy because they only benefitted from use of the land during low

tide. Once a villager was taken to a police station, accused of trespassing on his land, where he had placed flags to demarcate his ownership. Local activists called for help from other communities within the Upper Gulf of Thailand Conservation Network. Those community members mobilized their representatives to go to the police station where the unfortunate Khun Samut Chin villager was detained. This is the phenomenon for which Hall, Hirsch & Li (2011: 188) term “counter-exclusion”, or “[a] condition under which people have mobilized collectively to counter their exclusion from land as territory or productive resource, and sought to exercise, in turn, their own powers to exclude.”

The village chief told the story like this: “When the tide was low, the capitalist had his men measure the land, claiming it to be his estate. He wants to take ownership of the land sinking into the sea and seize the public marine resources as his personal treasure trove.” In order to prove that the land did not belong to the businessman, the residents had had to contact a number of landowners, to get them to present their title deeds. Although the villagers were lucky in that other landowners had been very helpful, their livelihoods were heavily dependent on the goodwill of others. With the help of the local administrative office, which was also in partnership with the Upper Gulf of Thailand Conservation Network, the community had been trying to contact the responsible government agency to withdraw ownership of the land that was sliding into the sea, so that it would be legitimately open for public use. “What the people have been trying to ask from, and present to, the relevant authorities is to call off the ownership of the land, which was sunk in the sea and abandoned. Also, the ownership of the abandoned land is to be under

the care of the community so that the community members can equally have a right to access to the land to make a living,” said the Chief Administrator of the Laem Fa Pha Administrative Office (personal communication).

The Upper Gulf of Thailand Conservation Network not only focused on coastal erosion but also discussed other problems threatening people’s livelihoods. When a community in the network needed a number of people to join a movement in an attempt to oppose local environmental degradation or to influence state decision-makers, members of other communities could be called upon to help. According to a report by the Upper Gulf of Thailand Conservation Network, a copy of which I obtained by my participation in one of their regular bi-monthly meetings in June 2011, the network had been working on a draft of the marine and coastal resources management act. It had been putting forward an initiative to set up a fund to look after people whose land had fallen into the sea. Working in partnership with government bureaucrats and non-governmental organisations, the network had enhanced the political strength of their grassroots environmentalism.

5.2.4 Local Government

The local government discussed in this section is mainly that of the Laem Fa Pha Sub-district Administrative Organisation. According to the *Tambon* Council and *Tambon* Administrative Authority Act B.E. 2537 (1994) and the Determining Plans and Process of Decentralization to Local Government Organization Act B.E. 2542 (1999), sub-districts in Thailand had been decentralized into local government units.

Dependent on population density and tax income, a sub-district was administered either by an SAO for its rural area in places where the population density was rather low and/or a municipality for an urban area with a relatively high density. An SAO was composed of a legislative body, known as an SAO council, and an executive body. It was mandatory that all SAO council and executive members, including the chairperson, be appointed by election. The number of council members varied depending on the number of villages within a sub-district. The major roles of an SAO council were (i) to approve the sub-district development plan, which was a framework for SAO performance; (ii) to consider and approve drafts of sub-district regulations, financial plans, and supplementary finance; and (iii) to supervise performance of the executive committee to ensure that it followed the sub-district development plan. Duties of the executive committee were (i) to manage SAO affairs in accordance with its resolutions, regulations and development plan; (ii) to formulate development and financial plans to gain the approval from the SAO council; (iii) to report its performance and expenditures to the council at least twice a year; and (iv) to perform other tasks as assigned by government. The organisational structure of the Laem Fa Pha SAO is shown in Figure 5.2.

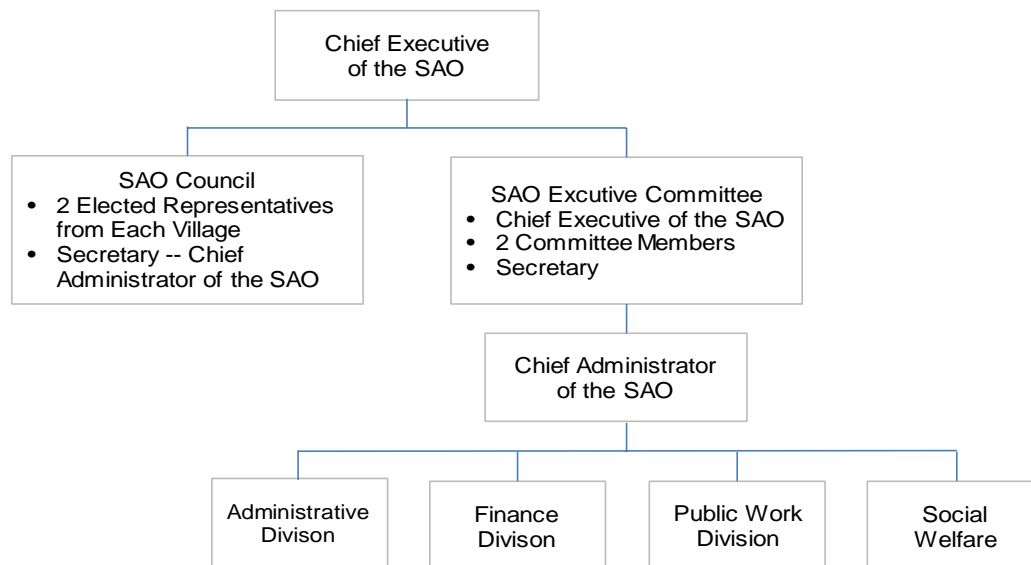


Figure 5.2: Organisational Structure of the Laem Fa Pha SAO

The responsibilities of the SAO consisted of both mandatory and optional functions. Its key mandatory functions were infrastructure development, such as road construction and maintenance; provision of waterways and pathways; prevention and control of infectious diseases; and promotion of education, religion and culture, including the development of women, children, youth, the elderly and people with disabilities. In addition, the SAO should protect and manage natural resources and the environment, and perform other duties assigned by central government.

Laem Fa Pha SAO conducted a SWOT (strengths, weaknesses, opportunities and threats) analysis for 2008-2012, as shown in Table 5.1, in order to formulate its development plan.

Table 5.1: Laem Fa Pha SAO SWOT Matrix, 2008-2012²⁷

<div style="text-align: center;"> Internal Factors External Factors </div>	Strengths 1. Abundant natural resources 2. Renowned tourist attractions 3. Local traditions 4. Agricultural technology transfer among villagers	Weaknesses 1. Inconvenient transportation 2. Lack of alternative sources of income 3. Inadequate accessibility to primary education 4. Lack of knowledge on disease prevention
	Opportunities 1. Local products 2. Coastal aquaculture and fishery products 3. Cultural tourism promotion 4. Budget allocation from the central government in supporting the SAO operation	SO Strategy 1. Providing markets for coastal aquaculture and fishery products 2. Promoting tourist attractions for one-day eco-tourism trip 3. Promoting OTOP products
	Threats 1. Coastal erosion 2. Lack of financial resource for income generating activities 3. Land expropriation 4. Lack of public facilities 5. Insufficient attention on local wisdom	WT Strategy 1. Conducting survey on people's needs 2. Efficient use of budget 3. Collaborating with relating agencies and organizations

In accordance with this analysis, the SAO followed eight strategies in guiding its development projects for 2010-2012; these are summarized in Table 5.2.

²⁷ Laem Fa Pha Sub-District Administrative Organisation, 2007

Table 5.2: Laem Fa Pha SAO Development Strategies, 2010-2012²⁸

Development Strategies	Objectives	Development Projects
1. Infrastructure Development	1.1. To provide extensive accessible transport routes 1.2. To provide adequate water supplies 1.3. To provide access to electricity to all households 1.4. To provide flood protection system	(1) Road Construction (2) Road Maintenance (3) Footpath Construction (4) Water Pipe Laying (5) Bridge Construction (6) Drainage System Construction (7) Anti-Flood Dam Construction
2. Community Economic Development	2.1. To manage and develop Laem Fa Pha floating market as a sustainable income-generating source for local residents 2.2. To promote local occupational groups and community enterprises 2.3. To strengthen the capability of micro-credit funds	(1) Revolving Fund Provision (2) Aquaculture Workshop (3) Aquaculture Development Centre (4) Occupational Development for Women (5) One-Tambon-One-Product (OTOP) Development
3. Education, Religion, Tradition and Culture Promotion	3.1. To make education more accessible 3.2. To support and promote religious activities 3.3. To nourish local traditions	(1) Promoting Local Wisdom (2) Village Budget for Tradition and Culture Promoting Activities (3) Budget for Buddhist Lent Festival (4) Budget for Loy Kratong Festival (5) School Lunch (6) School Milk
4. Public Health Service	4.1. To prevent communicable diseases by strengthening law enforcement 4.2. To support local health centre(s) in upgrading their services 4.3. To encourage health promotion	(1) Anti-Drug Campaign (2) Creating Awareness of the Harmful Effects of Drugs (3) Fund for HIV/AIDS Patients (4) Disease Prevention and Control (5) Supporting District War Room against Drugs (6) Promoting Sports in Sub-District (7) Organising Sports Day(s) (8) Posters against Drugs (9) Training for Village Health Volunteers

²⁸ Laem Fa Pha Sub-District Administrative Organisation, 2009

Development Strategies	Objectives	Development Projects
5. Community Development	5.1. To continuously and increasingly provide social welfare for the elderly and the disadvantaged 5.2. To support elderly activities	(1) Allowances for the Elderly, People with Disability, AIDS Patients, and the Disadvantaged (2) Integrated Poverty Reduction Campaign (3) Annual Basic Minimum Need Data Collection
6. Environmental Management	6.1. To minimize effects from infrastructure development on environment 6.2. To strengthen environmental law enforcement	(1) Landscape Development (2) Water Resource Management (3) Mangrove Afforestation
7. Social Security	7.1. To provide adequate personnel and apparatus for disaster prevention and mitigation 7.2. To prevent precursors of social insecurity	(1) Training for Civil Defence Volunteers (2) Training for Policing Volunteers (3) Anti-Drug Campaign (4) Organising Sports Day(s)
8. Public Participation Strategy	8.1. To provide services promptly, accurately, fairly and equally 8.2. To promote human resources development within the SAO 8.3. To coordinate with other agencies and organisations, as well as to encourage public participation	(1) Effective Management Training for SAO Management Level (2) Development Planning Training for SAO Staff (3) Mobile Tax Collection (4) Organising Community Meetings

To my surprise, even though coastal erosion was a potentially dangerous situation and was threatening Ban Khun Samut Chin village, as well as other villages within the responsibility of the Laem Fa Pha SAO, it did not appear to receive high priority on the SAO development agenda. In conversations with Ban Khun Samut Chin villagers, I heard that the Chief Administrator of the Laem Fa Pha Administrative Office had explained to the villagers that building a breakwater to mitigate coastal erosion would require a very high financial investment -- too high, in fact, for the SAO to meet the cost. He had said that he would prefer it if villagers came up with

alternative development projects that would be financially feasible. In response, a recycling project was kick-started. My informant said that since the only means of transport to the outside world was by boat, any waste materials were usually burnt or dumped in open areas. The villagers wanted to have an efficient waste collection and disposal system to manage ever-increasing levels of solid waste, such as plastics, glass, metal, rubber, that were being produced by themselves and their visitors. Also, there was quite a lot of ocean waste coming ashore in the village.

Over the years, the Thai government had been promoting the 3Rs (reduce, re-use, recycle) concept for solid waste management (World Bank, 2004). Recycling businesses in the country were growing at the time. However, recycling in Ban Khun Samut Chin community had faced some difficulties. Problems included a lack of tools for appropriate waste treatment technology, lack of an appropriate disposal site, and a limited budget for transportation of recyclable waste for sale elsewhere. After the issue had been brought up at a village meeting as a possible element of a local development plan, the local government began to allocate financial support to the village in order to improve its existing waste management system. The money was then directed to cover the cost of transporting the community's recycling waste elsewhere.

Projects related to coastal erosion received attention from the local authorities if, and only if, they could address problems that affected local people's everyday lives. Examples of some of those projects are financial support that contributed to half the cost of the Ban Khun Samut Chin patrol boat that was monitoring illegal cockle

dredging and the cost of a pen video recorder to capture any suspicious activities while on patrol. Also, the Laem Fa Pha SAO had sponsored volunteers from villages within its jurisdiction for training courses on civil defence and disaster management, and emergency rescue.

Another concern that had come into the spotlight, especially after the 2011 flood, was that villagers lacked land entitlement. This lack of land entitlement prevented residents from receiving government benefits. Thailand's Great Flood of 2011 was the worst flooding Thailand had experienced in half a century. The flood began at the end of July, triggered by the landfall of Severe Tropical Storm Nock-ten. It soon spread through the provinces of Northern, Northeastern and Central Thailand, along the Mekong and Chao Phraya river basins. In October of 2011, floodwaters reached the mouth of the Chao Phraya River and inundated parts of Bangkok, the capital city. In some areas, flooding persisted until mid-January of 2012. The flood caused tremendous damage to all business sectors and impacted the livelihoods of a great number of Thai people. Over three quarters of Thailand's provinces were declared flood disaster zones.

The study area was part of Samut Prakan province located on the Upper Gulf of Thailand where the Chao Phraya River flows into the sea; it was also affected by the severe flooding for a few months. A few villagers from fishing households told me that when I had called on them, they had been able to do any coastal fishing during the flood. Floodwater discharged from upstream brought pollution that killed coastal aquatic animals, which had been the main source of income for small-scale

coastal fishers in the village. The government announced that it would give compensation to households affected by the flood. However, victims were required to provide evidence that their property had been damaged in order to receive help. The pond-owning households had concrete evidence that their ponds had been affected by the flood, but the fishing households had no concrete evidence to prove their losses, since they neither owned the land nor had an investment in the aquatic ponds. They had lived on their savings until they could start working again. One villager, who was also a member of the community's natural resources conservation group, told me that the Chief Administrator of the local government agency had given a lot of thought to the issue because it might happen again in the near future.

The local authorities had given top priority to the day-to-day problems affecting the livelihoods of Ban Khun Samut Chin villagers, rather than the coastal erosion problem itself. This was because former were more financially feasible and more practical. Applying Hannigan's framework, which identifies six factors required for "successful construction of an environmental problem" can help us to explain why the problem of coastal erosion did not gain enough salience to become a primary ecological goal for the Laem Fa Pha SAO authorities (1995: 54-55). The construction of coastal erosion as a critical environmental problem in Ban Khun Samut Chin had had scientific validation and, with the help of the "bridging" efforts of the Chulalongkorn research team, that knowledge had been translated as an environmental problem that local people could clearly understand (Hannigan's first two factors). The coastal erosion had also been widely publicised, facilitated by the media's reframing and repackaging of the problem as a climate change issue (factor

number three). The issue had been very successfully dramatized “in symbolic and visual terms” through visually powerful photographs of the changing landscape over the past 40 years, from the early 1970s when the community temple had still been surrounded by land, to more recent images, which dramatized how the temple had become an island in the sea, separated from the other buildings in the village by a wide stretch of sea (factor four). Coastal erosion was unlikely to be made a top priority by the authorities, or addressed through ambitious interventions, such as the breakwater advocated by the Chulalongkorn team, however, as two of Hannigan’s key criteria for successful construction of an environmental problem were not met: firstly, “economic incentives for taking positive action” were not strong enough for the administrative authorities, and secondly, “an institutional sponsor who can ensure both legitimacy and continuity” was lacking once the Chulalongkorn team’s intensive involvement came to an end in August of 2009.

5.3 Discussion

Since 2006, the Ban Kuhn Samut Chin villagers, through engagement with waves of external stakeholders, had developed a sophisticated understanding of (i) the causes of the environmental challenges that they were facing, (ii) future risks and opportunities for their community, and (iii) identification of political and livelihood strategies that might best facilitate remaining in their village in future decades.

Scholars who had studied disaster-affected communities in Southeast Asia, such as Archer and Boonyabancha (2011) and Baker (2009) have highlighted ways in which processes of disaster relief may present opportunities for capacity-building and

effective action for local communities. For example, Archer and Boonyabancha (2011) point out that disaster survivors should not be viewed simply as helpless and dependent victims but as agents for change in rebuilding their lives. They claim that with the help of external stakeholders, survivors could be mobilized to harness their energy positively and become empowered through the process of recovery.

Furthermore, Baker (2009) notes that the process of disaster relief may present opportunities for capacity-building, but that change may be uncomfortable for those who wished to maintain their current circumstances. For example, the tsunami provided an opportunity to up-turn established political, social and economic structures that had caused hidden turbulence in Khao Lak, Koh Lanta and Koh Phi Phi, Southern Thailand (Rigg et al., 2008). In the case of Ban Khun Samut Chin, engagement with waves of external stakeholders since 2006 had provided villagers with a variety of different explanations for the environmental challenges that they were currently facing. However, different external stakeholders had framed the causes of local problems in quite different ways and this resulted in a complicated set of possibilities for understanding local problems and for defining possible solutions.

According to the Hannigan (1995) model, which identifies three key tasks in social construction of an “environmental problem”, namely (i) assembling, (ii) presenting and (iii) contesting; the first task is usually initiated in the realm of natural science, for ordinary people are less likely to have the necessary expertise or resources to identify new problems. The stage of assembling an environmental claim involves a variety of specific activities such as naming the problem, distinguishing it from other

problems, determining the basis of the claim, and gauging who is responsible for taking action. The case of Ban Khun Samut Chin, however, shows that this task of assembling does not necessarily always take place exclusively in the realm of science. In the case of Ban Khun Samut Chin, different stakeholders developed different ways of framing the environmental changes affecting the village: a number of distinct, yet intersecting, environmental problems were identified. These different ways of framing the ecological challenges implied different visions and strategies for possible adaptation. The various visions offered to Ban Khun Samut Chin community by different stakeholders are summarized in Table 5.3.

Table 5.3: Different Visions of Different Stakeholders on Environmental Change and Adaptation in Ban Khun Samut Chin

	Chulalongkorn Research Team	Media	The Upper Gulf Network	Local Government
Main causes of environmental problems	<ol style="list-style-type: none"> 1. Waves and wave induced currents; 2. Decreasing Sediment / Development of dams upstream 	<ol style="list-style-type: none"> 1. Rising sea level / Global warming; 2. Mangrove deforestation 	<ol style="list-style-type: none"> 1. Decreasing Sediment / Development of dams upstream; 2. Stronger waves and wind; 3. Rising sea level / Global warming 	<ol style="list-style-type: none"> 1. Decreasing Sediment / Development of dams upstream; 2. Waves and wave induced currents
Best possible solutions / interventions	Construction of breakwater	Promotion of tourism: <ol style="list-style-type: none"> a. To raise national awareness about environmental justice b. To generate income for the villagers 	Focus on day-to-day livelihood problems such as land entitlement and other environmental issues	Focus on day-to-day livelihood problems such as land entitlement and other environmental issues
Risks / chances of saving the village	If the breakwater were built along the village coast, the villagers would be more likely to be able to continue their livelihoods there.	It is unlikely that the village will exist in 10 years.	If the breakwater were built along the village coast, the villagers would be more likely to be able to continue their livelihoods there.	It is unlikely that the village will exist in the next 10 years.
Implications for livelihood strategies	<ol style="list-style-type: none"> 1. Fund-raising for the breakwater; 2. Natural resource conservation; 3. Income generation from visitors 	<ol style="list-style-type: none"> 1. Take advantage of disaster tourism; 2. Relocation once the village is no longer habitable 	<ol style="list-style-type: none"> 1. Natural resource conservation; 2. Income generation from visitors 	<ol style="list-style-type: none"> 1. Natural resource conservation; 2. Skill training for youngsters; 3. Plan for evacuation in case of natural disaster (i.e. typhoons)

Different stakeholders in fact emphasized different causes of the coastal erosion affecting Ban Khun Samut Chin village. The Chulalongkorn research team provided scientific explanations for the gradual processes of coastal erosion in Ban Khun Samut Chin, mainly identifying waves and wave-induced currents and decreasing sediment due to the development of dams up stream as the main causes of change. The media, however, had sensationalized the problems by linking them to bigger environmental issues, such as global warming and mangrove deforestation, in order to capture the attention of the general public. The Upper Gulf of Thailand Network, meanwhile, highlighted decreasing sediment due to dam construction, which they had learned about from the research team. They also observed that the erosion had been affected by stronger waves and winds in recent decades, as well as by extreme weather events, such as typhoons. In addition, the network tried to link their local problems to global issues, such as rising in sea level caused by climate change, in order to gain national attention. Yet, mangrove destruction was downplayed, as the local coastal communities themselves would then have been in danger of being portrayed as environmentally irresponsible, having turned their mangrove forests into aquaculture ponds. Meanwhile, the local government, Laem Fa Pha SAO, generally accepted scientific explanations for factors that contributed to coastal erosion from the Chulalongkorn research team, although they did not necessarily commit themselves to solutions that were suggested by the team.

Different groups of external stakeholders envisioned distinct solutions to the set of environmental problems in the area. These different approaches can be partially attributed to difference in motivation among the various organisations. The

Chulalongkorn research team believed that construction of the breakwater that they had invented could help save the village. Meanwhile, the media promoted the village as a tourist attraction, so that the public could learn about the impact of poorly planned development efforts on this remote village, and then encourage villagers in Ban Khun Samut Chin to generate income from this alternative source. The popular network and the local government, however, focused on problems associated with day-to-day livelihood, such as land entitlement and unsustainable fishing, as they did not have the financial resources needed to fund the construction of a breakwater. It was more financially viable for them to address the problems of livelihood.

Some of the ways that the situation in Ban Khun Samut Chin was framed implied that the village could be saved from coastal erosion by proper investment of resources into major interventions, such as the proposed breakwater. Other ways of framing the situation were significantly more pessimistic in their predictions for the future. The research team was confident that their breakwater model could help save the village, so they encouraged fund-raising for construction of the breakwater. At the same time, they advocated conservation of natural resources, such as mangrove reforestation, so that the village would have natural barriers to mitigate the effects of strong waves. The team also suggested that villagers should encourage tourism in the area in order to fund their natural resource conservation projects. The media, on the other hand, seemed to focus on boosting tourism in Ban Khun Samut Chin so that villagers could make the most of the local disaster before having to relocate. The Upper Gulf Network advocated natural resource conservation, as this

was a growing commitment among communities all along the coastline. This strategy had a direct impact on their everyday lives and promoted tourism to generate income for the locals. The Laem Fa Pha SAO advocated natural resource conservation for the village, similar to its policies for other villages along the coast. However, as the local government was less optimistic about the village's prospects for the coming decade, it also focused on helping local residents prepare for change by supporting skills-training for youngsters and planning for evacuation in case of natural disaster.

All these different framings presented different understandings of how the various environmental problems fitted together and what, if anything, could be done. This kaleidoscope of framings painted a complicated and potentially very confusing picture for the locals. Applying Hajer's language (1995), it can be said that a number of different "storylines" were interacting and that there was no particular one dominated, as such there were "discourse-coalitions" with clear implications for collective action at the community level. On one hand, local residents had been empowered, as they had come to develop a sophisticated understanding of the environmental challenges that they were facing and gained media attention and accessed resources from various sets of outsiders. On the other hand, the best course of action remained unclear and there were unanswered questions, such as where to commit collective and individual resources? Whether and when to move to plan B, i.e. to abandon the village and to pursue a livelihood elsewhere?

One might imagine this could have led to conflict within the community, as different individuals adopted different and conflicting modes of understanding their situation and implications for action. Drawing on Forsyth (2001; 2007), different groups of people within Ban Khun Samut Chin might have focused on different environmental issues. The influence of the economic class within the community might have been a divisive rather than a unifying force. In this case, one might suppose that some community members might have been more interested in saving the village than others, such as the pond owners who had invested so much in the community only to abandon their assets, or those who had benefited from conservation tourism.

The next chapter will explore how Ban Khun Samut Chin villagers had been developing their strategies for action, as a collective and as individuals, based on their complex and sometimes contradictory modes of understanding and self-representation.

Chapter 6

Living with Uncertainty: Self-Representation and Livelihood Strategies

In this chapter, I explore the development of identities within Ban Khun Samut Chin, and mention the different strategies for dealing with disaster. This is addressed at two levels, that of the entire village and that of individual members of the community. As demonstrated in Chapter Four, the community in focus was heterogeneous. Members of the community were strategic in representing themselves as a united group in many of their interactions with external stakeholders. The strategy was used to gain leverage for access to necessary resources to protect their supplies of natural resources, to secure their livelihoods in the village, and to generate new sources of income. The strategy often involved presenting themselves as a unified community with common goals and plans.

By the time I had begun to study the village, community leaders had become quite skilled in mobilizing local participation in support of their initiatives. It was difficult to judge whether or not community members had genuine faith in the projects in which they had been participating, or were simply complying with social norms. Perhaps they had felt that they had no choice but to support projects being spearheaded by their community leaders. In fact, upon closer examination, I discovered that, individually, members of the Ban Khun Samut Chin community held a variety of hopes and beliefs at any one time and were in pursuit of a disparate range of livelihood strategies that were sometimes contradictory. Individuals relied

on a particular narrative or tactic, at different times, depending on what seemed to best suit their particular needs or circumstances.

In the first part of this chapter, I examine the processes by which, in their engagement with various different external stakeholders, Ban Khun Samut Chin villagers represented their community as a unified one. Due to the rapid environmental change they had been facing, Ban Khun Samut Chin community members were highly motivated to try to secure resources from outsiders. They had presented themselves to different sets of external stakeholders in relation to expectations by strategic representations of the community's desires and plans for the village according to expectations of each of the stakeholders. In exploring these dynamics, I employ Li's (1996, 2000) notion of "articulation" to explain how people in places like Ban Khun Samut Chin draw upon local history and tradition, landscape and livelihood, to paint an idealized image of a community and to reach consensus in their efforts, in order to secure internal and external support for conservation and development agendas. I argue that these processes of group articulation have been facilitated in Ban Khun Samut Chin by long-standing patron-client traditions in the community. Community leaders have acted as "power brokers" by initiating visions and plans for the village and negotiating with external stakeholders for the benefit of the community as a whole. Meanwhile the role of other community members was to follow leaders who would supposedly reciprocate by looking after their welfare. It was difficult to determine the extent to which community members played their roles because they believed that the outcome would be fruitful or because they thought they had no alternative.

In the second half of the chapter, there is close consideration of the individual level. I find a variety of beliefs, visions and actions for the future among individual members of the community, some of which seemed to be conflicting. By employing Swidler's (1986) theory of "culture in action", my research shows that those individuals were not single-minded in their pursuit a strategy for livelihood. Although Ban Khun Samut Chin villagers apparently invested significant resources and energy in maintaining their status quo and they made the most of the environmental deterioration through "disaster tourism", they were also considering possibilities for futures in other places. Ban Khun Samut Chin villagers might have had to adjust their goals to retain their livelihoods in the village and to resettle; yet, the livelihood strategies they usually depended on might have helped them to survive and even thrive in their alternative futures. Nevertheless, the individuals only reluctantly admitted that they had a "Plan B", as it could possibly have undermined their preferred "Plan A".

6.1 Articulating Community Identity

In Thailand, an obsession with community had been an issue in Thai politics ever since the Eighth National Economic and Social Development Plan (1997-2001). Communities had been targets of change by the government through initiatives that had been given significant promotion such as community-based projects, from management of natural resources to village development funds. Such projects seemed to be perceived by some as a panacea for development. It was believed that

localisation, involving participation of local people, would enable the powerless to speak up and be heard. However, this strategy strengthened the assumption that national agencies were the authorities and that the local people were subjects of their power. However, studies have found other points of power relations at the micro level. Focusing too heavily on the local level may have dangerously underplayed local social inequalities and power relations, as well as effects of broader socio-economic and political structures (Agrawal & Gibson, 1999; Mohan & Stokke, 2000; Kothari, 2001).

The case of Ban Khun Samut Chin community is an example of a community in which people belonged to a myriad of social groups. Some were better off and exercised power in the community; others were relatively financially disadvantaged, socially vulnerable or marginalized. Therefore a community should be examined in the context of development by paying more attention to its local politics in terms of actors and multiple interests, institutional arrangements that shape its decision-making processes, and its construction and representation.

Drawing from Li's (1996; 2000) term, the Ban Khun Samut Chin community strategically "articulates" itself as a victim of some economic development upstream in order to gain leverage for the financial resources necessary to retain their livelihoods. Some villagers claimed that they had been portrayed by the state as a scapegoat for mangrove deforestation to get sympathy from the public. The village chief admitted that her ancestors might have cut down mangrove trees. However, she rationalized their actions by emphasizing that, in her view, they had acted not

from greed but from concern over safety. She explained that, when she had been a little girl, the village and its neighbouring areas were dense with mangrove trees, which had made the neighbourhood unsafe for villagers walking from one place to another because of robbery and poisonous animals. Students had difficulty getting to and from school in those days. Boys were able to stay overnight at a temple but girls like her were never allowed. The village chief was out of school soon after completing four years of primary education. The villagers clearly did not want to be judged as deserving coastal erosion as a consequence of mangrove deforestation.

The Ban Khun Samut Chin community had not passively accepted their situation; instead, they actively and constructively worked to reduce their vulnerability. They used different tactics when approaching the various different groups of potential saviours. The community presented the problem of coastal erosion in their village as a consequence of global warming when writing a fundraising letter to international organisations. They also sent letters to privy councillors and to the Bureau of the Royal Household, hoping that the King would facilitate construction of the breakwater invented by the Chulalongkorn researchers. Those letters highlight community thinking. They elaborate on the community's rich traditions, self-sufficient livelihoods, and their sense of community, that would be lost with the last piece of land, unless the breakwater gets built. Otherwise, the Ban Khun Samut Chin community would eventually "collapse". Moreover, the village chief often plied for sympathy to people visiting the village. A century-long dispute between Cambodia and Thailand, involving the area surrounding the 11th-century Preah Vihear Temple, made national headlines in recent years, and the village chief often expressed to

visitors that she was insulted by the Thai government because it had fought over land that might not have belonged to the country but did nothing to save their community's last piece of land.

In addition, community leaders discovered that they could turn adversity into opportunity through "disaster tourism". With help from the media, the community temple became a new tourist attraction. Local leaders got an idea to court tourists to bring in some extra income and to raise awareness of their plight. The chief had assembled an array of pictures and documents that she had eagerly shared with visitors. Her family had built a small two-bedroom hut on stilts specifically for weekend tourists; incidentally, that is where I stayed during my fieldwork. Following the 2004 tsunami, many local communities were interested in mangrove reforestation for protection against natural disasters, such as storm surges (Barbier, 2006; 2007). Mangrove reforestation efforts were heralded as corporate social responsibility in relation to the society and local communities. The village chief's son, who was also a leader of the local environmental activists, joined the trend without delay. He and other members of the local conservation group had tailored a one-day programme to accommodate different groups of visitors wanting to take part in mangrove reforestation and, in some cases, enjoy locally-sourced food.

On the surface, knowledge of the risk of coastal erosion evidently did not preclude Ban Khun Samut Chin villagers from settling in the community, nor did it create willingness to be relocated. It seemed that most community members had become attached to their village, and did not want to consider moving somewhere

unfamiliar. The village chief often mentioned, in interviews with the media and when talking to visitors, that life would be not the same if they moved elsewhere. Their livelihoods would change and their community spirit would be lost. However, on closer consideration, the community was made of multiple actors with multiple interests. Those actors negotiated the use, management and conservation of their local resources. They also had different plans and motivation for either staying or leaving the village.

This section describes how community members thought differently and general feelings about other members. In Ban Khun Samut Chin, people who were better off tended to support those who were less well-off, and those who received help were grateful to their supporters. This was the reason that villagers chose to attend occupational training during spring tides, which was the only time that they could have collected cockle babies or oysters, even though they did not think that the occupational training would be useful for them. Some of them told me that they did it because the village chief had been very generous and helpful. It was interesting that people in the community did not call aquaculture labourers “employees” but rather, used the word “juniors”. This implies that aquaculture labourers were not merely employees receiving a particular wage for certain working hours but that being a “junior” was more like being a part of the family. Wages were flexible and dependant on the fluctuating economic status of the boss. Nevertheless, bosses looked after their juniors as they might look after their own family members. In addition to a wage, the village chief, and other pond owners, gave their juniors a share of the fishes, shrimps and cockles caught in their ponds. Moreover, the village

chief provided accommodation for juniors that had come from other villages. When going to town for a meeting, she would usually bring some food back for her juniors. The juniors, in turn, would bring her fishes, crabs and mussels caught on the shoreline, and would be on stand-by to help whenever she asked for their assistance.

A non-pond owner, who had moved to Ban Khun Samut Chin through marriage, told me that the village chief had lent her money several times when she had been in need. This might explain why she was then willing to help the village chief with housework when she had spare time during neaps. Apparently, being asked to help was considered as a form of approval. Another woman from a non-pond owning family complained to me that the village chief loved another particular family more than hers; the chief often asked the husband of that family to help on the pond and the wife to help in the kitchen at times when there were many visitors to the village. Also, when the chief had fruit and vegetables from outside, she usually shared them with the other family. When she explained this to me, it sounded more as if she was seeking approval from the chief, rather than being greedy for potential benefits in exchange for the help she gave.

The village chief also took very good care of government officials, or any news reporters that visited the community. One of her juniors told me that every year, the village chief gifted ten kilograms of blood cockles to the government officials responsible for her community. The chief behaves in the manner of what Lepowsky terms a “big person”. In Lepowsky’s (1990) study on the Coral Sea island of

Vanatinai, there are individuals in the local community, both men and women, who he describes as “unusually successful in accumulating and then giving away ceremonial valuables, in hosting and participating mortuary feasts, and in influencing their kin and neighbors” (ibid: 35). Similarly, the village chief was an influential individual in Ban Khun Samut Chin, who had managed to achieve authority over other villagers by accumulating and giving away household goods and foodstuffs, as well as having information on and liaisons with, regional and state authorities. The chief’s acts of generosity toward these authorities were partly on behalf of the whole community, to thank the authorities for fulfilling their professional obligations; but to some extent, they also represented an effort to secure prioritisation of her community’s needs and wants over those of other communities. She saw these as “gifts” rather than “bribes”, part of a complex ethical landscape of reciprocity similar to the analysis mentioned in Perera-Mubarak (2012), of post-tsunami Sri-Lanka. It is important to note that the village chief did not seem to think that she was being taken advantage of, if she did not receive the help she was hoping for in return.

While I was living in the village, an aquatic pond-owning family from a neighbouring village organised an ordination ceremony for their nephew. Most of the villagers in my study area were invited to the ceremony, which was to have taken place at a temple outside the village. The hosts paid for transport to take the guests to and from an evening party before the ceremony on the following day. However several villagers who had been working for the family went to the temple late in the morning, ahead of time. One of them told me that the hosts might need help and

that, as their juniors, her family should be around. In fact, the host had hired others to cook and clean throughout the day, and had not expected any help from juniors. Nevertheless, it did not mean that they did not expect them to be there. The same villager mentioned to other villagers that the hosts were unhappy not to have seen one of their juniors there. This shows that the bond between local fishers and pond owners ran deeper than simple employer and employee relationships.

The village was a relatively trust-based community. The cockle collectors sometimes gave their cockles first and then received cash later, and contracts were not in place between the collectors and the pond owners. This community exhibited many features of *Gemeinschaft*, which is a type of human association described by Ferdinand Tönnies. Tönnies argued in his work, *Gemeinschaft und Gesellschaft* (1887, cited in Agrawal & Gibson, 1999), that relations of *Gemeinschaft* are based in a relatively homogenous type of culture and tend to be intimate, informal, cooperative and filled with a sense of moral obligation to the group. *Gesellschaft*, on the other hand, is a type of relationship in which individuals who make up a group are motivated to take part in the group primarily from self-interest. Accordingly, the practice of buying on credit without any formal contract, unlikely in a modern society, was very common in the study area where local residents were bound together in reciprocal relations. There was a collective sense of loyalty to the group among individuals so there was no need for contracts in order to enforce social obligations.

Ban Khun Samut Chin villagers seemed to share the idea, as Scott (1976) has suggested, that local social arrangements should be structured in such a way as to respect the subsistence needs of the relatively worse off members for the benefit of each and every community member. Scott's *The Moral Economy of the Peasant: Rebellion and Subsistence in Southeast Asia* (1976) attempts to understand the norms of reciprocity in peasant societies in Southeast Asian countries. He argues that traditional societies differ substantially from modern ones. In traditional societies, members are generally more subsistence-oriented in that they prefer safety and reliability to longer-term profit (ibid: 13). This principle, Scott explains, leads peasants to "favour those institutions and relationships which minimize the risks to subsistence, though they may claim much of the surplus" (ibid: 55). Mutual assistance between members in traditional societies provides the means for people to secure their individual survival. Collaborative family and kinship ties set up a safety net that can rescue individuals at times of hardship: "a family that is hard-pressed will expect help from others who have fared better and will expect to reciprocate when the situation is reversed" (ibid: 168). He also explains that relationships between landlords and their tenants are rather paternalistic in traditional societies. The landlord undertakes the risks of cultivation and gives financial assistance to the tenant, who is considered "an inferior member of the extended family" of the landlord (ibid: 186). Hence, tenants under the traditional system "seem willing to put up with its injustices for the compensating security" (ibid: 37). This relationship is somewhat similar to that between the pond owners and the non-pond owners in my study area. Economically, the Ban Khun Samut Chin community may not have been so "traditional", in comparison with the village in

Malaysia that Scott had studied decades ago. Nevertheless, in terms of social relations, Ban Khun Samut Chin was a relatively traditional society in which men and women, as well as leaders and followers, were still expected to fulfil certain traditional roles.

The village chief, in interviews with the media and conversations with visitors, described a sense of community in Ban Khun Samut Chin that seemed remarkably strong. She often emphasized that the community would collapse, and that their solidarity would be torn apart, if no help was given to save their sinking land. However, it is important to recognise that communities are constructed, contested and reconstructed by those who reside in them and come into contact with them (Cohen, 1985). In order to defend their interests, people influence the distribution and circulation of particular representations. In and through representations of the community, the Ban Khun Samut Chin villagers had created both a common identity and a located self.

The adoption of community-based approaches to development by the Thai government had provided Ban Khun Samut Chin community with a range of vocabularies with which requests could be made and pressure could be asserted in the policy arena (Li, 1996). The positioning of Ban Khun Samut Chin villagers as a self-reliant, long-standing community that had fallen victim to the state's economic development projects upstream, can be interpreted as an articulation that aimed at projecting a collective identity to facilitate negotiation with the Thai state, as well as

with the urban middle classes who had benefited from such projects, in order to secure assistance.

Poor conservation outcomes, following decades of the Thai state's intrusive resource management strategies and economic development policies, had forced scholars and policy makers to reconsider the role of community in resource use and conservation (Santasombut, 1994; UNDP, 2003; Delang, 2005; Buch-Hansen, Oksen & Prabudhanitisarn, 2006). For a long time, political concerns about the environment in Thailand focused on the destruction of wilderness, a loss of equilibrium in rural areas, and encroaching conflicts. From the point of view of state regulators, wilderness was best preserved by strictly regulating human presence (Santasombut, 1994; Forsyth, 2008). In this context, local communities and their residents were often portrayed as obstacles to efficient use of natural resources. While such beliefs did still persist, local communities had recently become the locus of resource management plans. There was a flood of scholarly papers and policy reports that emphasized community-based management. Advocates of community-based natural resource management argued that communities have long-term need for renewable resources where they live, and suggest that they possess many traditions and forms of local wisdom that equip them with better knowledge about such resources than other potential actors (Santasombut, 1994; Delang, 2003; UNDP, 2003; Forsyth, 2008). However, environmental knowledge does not exist in a politically neutral form. Whether it is scientific knowledge employed by technocrats to legitimize government interventions, or the kind of local wisdom that is so often expressed by NGOs and other advocates of community-based projects, such

knowledge can serve as a “point of leverage in on going processes of negotiation” (Li, 1996: 509; Kothari, 2001; Forsyth, 2008).

Scholars have argued that uncritical idealization of community as a close-knit, unified social structure, that uses locally-evolved traditions to manage resources sustainably and equitably, often naively overlooks differences within such communities, and ignores the possibility that these differences could affect strategic interactions within that community and between the community and other actors, as well as affecting outcomes of resource management (Mohan & Stokke, 2000; Agrawal & Gibson, 1999). Li (1996: 510) points out that “in rural contexts, the partial overlapping of local history, landscape, kinship and biography provide a richness of shared and separate experience which can be invoked by individuals ... to suggest particular interpretations of cultural ideas. Negotiation in this context is a negotiation of meaning and value, not solely the manoeuvring of individuals within agreed rules. It is a social process which draws upon cultural traditions while in the process transforming them.” In a similar vein, Ban Khun Samut Chin villagers, or, more specifically, their ruling elites, drew on kinship as descendants of Chinese immigrants who had settled in the community centuries ago. A local museum, which was set up after the villagers had found relics from antiquity, further supported articulation of a collective identity in some interesting ways.

In the Thai Museums Database of the Princess Maha Chakri Sirindhorn Anthropology Centre (2012), Ban Khun Samut Chin village is depicted as follows:

Ban Khun Samut Chin village, over 300 years old and situated on a small peninsular, was formerly an area where Chinese cargo was unloaded from Chinese junks. The area was near the Chao Phraya estuary, an important river route for cargo and passenger ships from many countries on their way to Bangkok and Ayutthaya. The population here were mostly of Chinese origin, their ancestors being the migrated Chinese who had come here aboard big junks. Most did business in the area of the old Wat Laem Fah Pa. At present, Ban Khun Samut Chin village is a community with a critical problem due to the land erosion of both river banks. The land used to be projecting into the sea over 4 kms. farther out than it is these days. The erosion resulting in the tumbling of some land and subsequent floods, was caused by the digging up of the riverbed mud, which was then dumped into the sea.

The inner river bank earth, afterwards, slowly moved towards the river and immersed into it. There are 2 other reasons involved in this natural phenomenon – the mangroves deforestation and the global warming. Badly affected by all these are the local people who are forced to move to a new place every 10 years.

The museum was started after the villagers had found ruins of antique things in the mangrove forest in the south, near Wat Khun Samut Travas, and in the river bank areas near where the community lived. The things found were broken antique ceramic pieces, clay food jars, broken ancient kilns, utensils, ornaments, and ancient currencies. Found also were gold ornaments such as gold rings and bracelets, coins, and monies used in different reigns, estimated to be over 200 years old. Still discovered even today are broken pieces of old bowls, dishes and jars, mixed in shell fossils and buried in many seashores. Most things are really broken or damaged because the local people do not know how to keep or maintain them, whereas very few who do are unable to have them kept in perfect condition. At present, the antiques have been put in Ban Khun Samut Chin Community Local Museum and in Headman Samorn Khengsamut's house.

The bowls and dishes in the museum are mostly Chinese crockery. Vietnamese crockery and Thai crockery were also found but in very few numbers. Then there are glazed ceramics. A few examples are clay jars glazed with blue and brown solutions from River Noi kilns in Sing Buri Province, toddy palm sugar pots, brown clay pots, clay receptacles, red lime containers, and ornaments such as rings, bronze bracelets, glass bracelets. The museum displays also include tools and utensils necessary for the people's livelihood: Chinese scales, flour grinders, row boats, fishing gears, etc. Illustrated also is the map of the people's ancestors' routes from China, because a number of their ancestors were from Kwangtung District, and most antiques found were from Fuzhou, in China.

The museum is managed by the local people themselves. It is meant to be a learning centre and a sustainable tourist attraction or a place that the people

can proudly show off their history, culture, art, lifestyles, and the geographical changes, natural science, and the ecology of the area, all influencing the livelihood of the community. Funds and aids are from the Tambon Administrative Organization, the Lek-Prapai Foundation, Rajabhat Thonburi University, and Fine Arts University. The Board of Committee comprises different groups responsible for specific jobs e.g. the tour guides, the logistics, the finance, and the fund raising. It can be said that actually it is the community people themselves who are working together for the common good.

In the village, there was a Chinese shrine located near the village chief's house. This *Noom Noi Loi Chai*, or "Floating Boy" Shrine was considered the heart and soul of the community. There was an annual *Noom Noi Loi Chai* festival held in January. It was a very big celebration, to which every villager I came across looked forward to. A number of those who had moved away would return to the village for the festival to pay homage. The village temple, the one that was surrounded by the sea and had been the focus of so much interest from television crews and tourists, was assumed to have much sentimental value to the villagers. As a matter of fact, the village chief's husband, Lop, admitted that the villagers had not had very much to do with the temple. Some villagers told me that they had continued almsgiving to the resident monks only in the hope that good karma would earn them and their loved ones, both dead and alive, a better life. However, many of the villagers were unhappy with the abbot's arrogance and kept a distance from the temple. The main reason behind attempts to save it, Lop confessed, was because it helped attract visitors to the village, which meant more potential support for the community movement. In several interviews with the media, the village chief had painted a picture of Ban Khun Samut Chin villagers as a community that had inherited its way

of life from an ancient community, and that if the village and temple were lost then their traditions and ancestral legacy would also be lost forever.

To some extent, their collective identity had been constructed with the help of a research group from a local university, Dhonburi Rajabhat University. The research team studied relics of antiques, chronicles, narrations and other documents with the aim of establishing a local museum to promote sustainable tourism in Ban Khun Samut Chin, as an alternative source of income and livelihood for the villagers, to help support their battle against coastal erosion. As the research team was investigating local history, they were, in fact, constructing one at the same time.

The researchers described villagers' descent from a shared ancestry as a primary defining characteristic of the Ban Khun Samut Chin community. However, I had discovered during my stay that quite a number of Ban Khun Samut Chin residents had come from other parts of Thailand and married local people, who were descendants of Chinese immigrants or Mon ethnic settlers. Some of these relative newcomers were not wholehearted about their identity as Ban Khun Samut Chin villagers. They told me how difficult life had been when they first moved to the village and how much they had missed "home". For example, I was told that they had not even had fresh water in the village until the last decade, unlike in their homeland in the Central Plain that had relatively limitless fresh water resources. Quite importantly, those mentioned above still had a "home" in terms of a place to fall back on, in case the village was completely engulfed by the sea.

In 2009, a booklet *The Lord of Sino's Ocean*, published by the Thai Health Promotion Foundation, further reinforced a romantic image of the village as an idyllic self-subsistent community. It is a piece of fantasy fiction, inspired by the story of Ban Khun Samut Chin. The booklet describes the community as dwellers of a peaceful land threatened by coastal erosion. Reigning over the land was a wonderful queen who was wise and fair, and she ruled with the help of her well-read son. At the end of the booklet, the authors explained that the characters in the story referred to the village chief and her son. The Chulalongkorn research team leader, Dr Thanawat, is also portrayed in the story as a hero who saves the community from catastrophic coastal erosion.

A study by one of the researchers from the Chulalongkorn team also demonstrated how community members had united in their struggles to live with the challenges of ecological change in the area. The following excerpt from interviews with community members shows that the threat of coastal erosion had lead Ban Khun Samut Chin villagers to develop a sense of “civic awareness:”

Prapan: We all share the same problem. Every house, 100% of people say same thing. That's coastal erosion. It's really trouble us. We were forced to move, to escape. We have no land. We could not afford to buy new land. We have to get together to solve this problem. It's not a problem of each one, it's a community problem.

Veerachai: We have to work hand in hand for our mother land. We face the same problem. We need to share otherwise we all could not survive.

Wiwat: Good group need good leader.

Somsak: Right. If we don't have leader we could not form group.

Manusnan: We are lucky, our head man is very brave.

Suriya: She is very smart, very brave. Local leaders are key persons of inspiration.

(Siriboon, 2011: 142; translation from original)

In spite of such professions of unity, most community members seemed very well aware of social hierarchy within the village. The villagers referred to the houses of two influential families in the community as “big house”, as mentioned earlier in Chapter Four; this indicated that they recognised the political power of those in the houses. In addition, many households that had no aquatic pond were fully aware that they were clearly worse-off compared to the pond owners in terms of asset accumulation and status. Those without financial commitment tied to the land could perhaps be more flexible: they could easily leave the village if necessary and they had less to lose by coastal erosion. However, there were clear status implications of not owning property. Similarly, households with no boat were dependent on the pond owning families. The pond owners set the buying price for baby cockles. The pond labourers did not have written employment contracts to secure their jobs so their jobs would have been in jeopardy if conflict arose with the pond owners. Power relations in the village were taken for granted. For example, a non-pond owner, who was also an active member of the community natural resources conservation group, told me that some time ago a relative of the village chief had blocked the public waterway and collected a small fee from its users. This was clearly unlawful but he had not bothered to report it to the authorities because he had not wanted to upset the chief. However, although these differences in status and power were well understood by those living in the village, the hierarchies and politics of difference were strategically played down in the process of articulating the identity of Ban Khun Samut Chin as a village under threat. The formulation of general positions for communication to outsiders served to reinforce the community’s sense of unity.

The appearance of social equality and unity in a community, especially in a rather remote community, is often mistaken for its reality. During my fieldwork, there was an incident in which ancient coins were stolen from the local museum. The community was in a very remote area, cut off from the outside world by waterways, so its residents were prime suspects. The village chief made an announcement via community loudspeakers asking the thieves to return the coins. Yet, she chose to make an announcement on the day that I followed a local couple to a nearby town. A few days later, one villager asked me where I had been on that day. I responded by asking her how she had known that I had been away, to which she replied that the village chief had mentioned it during her announcement. She had chosen to make the announcement while I was away because she had not wanted the village guest, that was me, to find out about the embarrassing event. It seemed that she had wanted to maintain the community's image as that of a lovely little village.

Such inconsistencies in interactions within the community and those between the community and outsiders can be understood in terms of the “complementary opposition” phenomenon suggested by Cohen (1985). With regard to their quest for help against livelihood threats from coastal erosion, members of the Ban Khun Samut Chin community recognised themselves as individuals that were more alike than different. Cohen further points out that, just like interactions among individuals, communities may behave in quite different ways in their interactions and may even behave even differently with the same other on a different occasion. This sometimes occurs in a thoroughly calculated manner, in order to give the kind

of impression that is likely to evoke a specific response, one that would support the concerns of the community (Goffman, 1959). Other times, actions and interactions may be relatively unconscious.

Beneath the seeming consensual views of the Ban Khun Samut Chin community on how best to respond to coastal erosion, presentation of community needs and wants to outsiders had been dominated by its ruling members. For one, the same local leaders usually represented the community when its members were invited to a meeting or seminar concerning challenges faced by the community. I saw the same faces again and again when I accompanied community representatives to events. The two main figureheads were the village chief's son, Po, and the Deputy Chief Executive of the local SAO, Pah, whose brother was married to the chief's niece-in-law. They were both influential figures in the community. Also, these people served as community gatekeepers or power brokers meaning that any research team, media representative or visitor to the village would get in touch with the village chief as the first point of contact. The chief would then assign her trusted juniors to provide information. Unsurprisingly, these were the same villagers who had actively represented the community elsewhere; chief among these was obviously Po.

Once I followed Po and another active community member, Eh, to the west side of the village for a household survey as part of the Chulalongkorn research team's project. I observed that they were quite suggestive when asking questions. Instead of waiting for a respondent to answer, they would voice what they thought and then ask if the respondent agreed with what they had said. For example, I remember the

following questions: (i) what differences could be noticed before and after the construction of the breakwater designed by the Chulalongkorn research team; and (ii) what did the respondent need and want in order to cope with the coastal erosion threatening the community livelihood? The answers were as one might have expected: they had noticed an increase in numbers of coastal animals after the construction of the breakwater; and they would like to have the breakwater built along the community's coastline so that their means for livelihood could continue. The fact that the local leaders seemed to be quite skilful in getting consent from other villagers could be because the villagers themselves realized that the most effective way to gain leverage for collective resources was to act collaboratively.

I do not think that the villagers follow their leaders naively. I was told that not everyone in the village was thrilled that Po was officially the village chief's assistant, and that he would one day replace the village chief. Seniority in Thai society is very strong. At the time of my fieldwork, Po was only about thirty years old. Some senior villagers were not particularly happy that someone as young as their children would become their leader. Po had the idea to ban all gambling in the village, which was completely unsuccessful. Gambling was a traditional hobby for the villagers, and one that no one had been willing to give up. Yet, the villagers had an understanding of when it was best to follow their leader.

Although the Ban Khun Samut Chin village was defined by its administrative boundary, those who were actively engaged in the movement to save the village included people from neighbouring villages who had also been affected by coastal

erosion. Villagers who had thoughts and ideas different from those of the community spokespersons were often labelled as “the others”. One example related to the abbot of *Wat Khun Samut Taraward*, who believed that a concrete wall would save the temple. The community leaders, however, believed that building a concrete wall around the temple would intensify energy of the wave that was hitting the village coastline and serve to worsen the erosion. Po encouraged me to talk to the abbot, in order to gain other perspectives. Yet, he made it very clear that the abbot was originally from another village so he would not have known the village as well as the local members.

In another case, a villager, who was the descendant of an original Chinese immigrant, was portrayed as a traitor for allying himself with a businessman who had claimed ownership of the sinking land at the village seafront. Later on, he was unfortunately hospitalized and had trouble walking afterwards. The village chief and Po and Eh convinced themselves and others that this was his bad karma for having betrayed the community. Another example was the village chief’s next door neighbours, who were also her husband’s relatives. The eldest daughter of the household had completed higher education, which was very rare in the community. Unlike others in the village who had a university degree, she had chosen to work and live in Bangkok. Her decision was perceived as evidence of a lack of community spirit. Po and Eh complained that people who had chosen to leave for their own sake, instead of staying to fight together, were basically black sheep in terms of members of the community. Asymmetric structure of power relations was considered inevitable and central to the way identity was articulated in the Ban

Khun Samut Chin community. The dominant group was in a position to impose the value of its identity and to devalue the particularity of others in order to create a united image of the community. Other villagers agreed to play along to some extent. Some believed that their leaders would do what they thought was best, not only for themselves, but also for the community as a whole. Others had possibly thought that their leaders were, in any case, their best bet.

The process of articulation in the Ban Khun Samut Chin was aided by researchers, who attempted a participatory approach by engaging community members with the research. The researchers seemed to cherish the local knowledge that they collected through participatory methods, to the degree that they were in danger of overlooking the fact that such knowledge was produced through power relations in the community, and possibly served to reinforce such relations (Siriboon, 2011; Paengkul, 2011). Kothari points out that “participatory practitioners may interpret actions and expressions of participants as ‘local culture’ when they are also the product of these processes of normalization, but not seen to embody power relations since they appear to be articulated and believed in by all. People absorb these cultural tropes, which are then recursively practised almost ritualistically, and it is the widespread acceptance of, and conformity to, these practices that make it difficult to interpret them as expressions of power or demonstrations of inequalities” (2001: 147-148). Since the village chief of Ban Khun Samut Chin had been praised by a number of community members as a wonderful leader, who looked after the villagers as if they were her own family members, her actions were believed to be for the benefit of all. As mentioned earlier in Chapter Four, her house

seemed to be open for them at all times. When a villager knocked at her door in the middle of a night asking for medicine for her sister, the village chief would not hesitate to help. The villagers were always welcomed to stop by for a serious conversation or just for small talk, or for food and drink. Hence, some villagers voluntarily agreed with her ideas, trusted her judgement and supported her decisions.

Some villagers had different opinions to those of local leaders, but purposefully kept their opinions to themselves. In this context, Goffman's ideas about presentation of the self in everyday life can help us to better our understanding of villagers' behaviour and social interactions in public places. Goffman (1956) writes about ways in which we present ourselves in everyday life, using metaphors of performance. He explains that "front stage" is where performances are enacted and that people make an effort to create an impression in that public sphere. Private performance is reported to take place "back stage", a sphere where production of the front stage performance takes place. It constitutes the dramas of everyday life and constitutes the effort that goes into making a front-stage performance.

An individual's performance in the presence of others from the same social group often requires incorporating and presenting the social norms of that particular group. Through self-surveillance and acting in conformity, the villagers also helped feed into the identity of the Ban Khun Samut Chin community that was being articulated. However, when these villagers were on their own or surrounded by those with whom they felt comfortable, they sometimes displayed a back-stage type

of reality. I was lucky enough to have experienced some back stage insights. Yet, those realities tend to be dismissed by focusing on consensus-building aspects of the community and, as Goffman suggests, some audiences avoid looking for back-stage realities. Mosse (1995: 573) expresses concern about interpretation of participatory rural appraisal (PRA) as a tool for data collection, with regard to consensus-building:

PRAs tend to emphasise the general over the particular (individual, event, situation, etc.), tend towards the normative ('what ought to be' rather than 'what is') and towards a unitary view of interests which underplays difference. In other words, it is the community's 'official view' of itself which is projected. ... often the very structure of the PRA sessions – group activities leading to plenary presentations – assumes and encourages the expression of consensus.

Identity articulation reflects the way individuals and groups internalize established social categories within their broader societies. These social categories shape ideas about who we think we are, how we want to be seen by others, and of the groups to which we belong.

In his classic text, *Mind, Self and Society*, Mead (1934) theorised about how social identities are produced and how they evolve through processes of agreement and disagreement, and through active negotiations with others. We adjust not only our behaviour, he argued, but also our self-image, based on interactions with others and our own reflections about those interactions (Mead, 1934).

In line with Mead's framework, we may assume that leading members of the Ban Khun Samut Chin community had tried to take on the role of their generalized others. They had needed to imagine how those people might see them. Owing to

the growing popular and scholarly appeal of the ideal of community in Thailand in recent years, the term community invokes, to some degree, qualities of harmony, solidarity and identity, as well as ideas of shared knowledge and interests (Santasombut, 1994; UNDP, 2003). Based on that information, members of the community engaged in establishing roles. When encountering specific others, such as researchers, representatives of the media or their visitors, they responded to that imagined appearance in order to influence those others. They then considered others' attitudes to their actions, and then revised and altered their own actions in light of their interpretations. They generally anticipated that others would place emphasis on their community spirit and this was often confirmed.

Community leaders frequently highlighted the importance of their community values, which would be washed away like their village, if there were not enough funds to build the breakwater invented by Dr Thanawat's team, for example. In addition, local leaders had learnt from the Chulalongkorn researchers that dam developments upstream were a major cause of coastal erosion in their areas. They used that information to underplay the fact that local people had been destroying mangrove trees to clear land for aquaculture ponds, which to some extent had also contributed to the erosion. Po claimed that villagers had been using their natural treasures sustainably, and that they were the victims of national economic development, rather than greedy villains who had destroyed their own resources for quick cash revenue. The local leader seemed to believe that it was strategically wise to gain sympathy by portraying community members as innocent victims of outside development. They often presented themselves as people being blamed for their

own misery. An alternative would have been to accept their human imperfection by publicly recognising that they sometimes made mistakes, or had perhaps not fully anticipated the consequences of their actions. The dominant members of Ban Khun Samut Chin community interpreted situations and tried to fulfil expectations that emerged in different social contexts; they emphasized their identities differently with different others, depending on the situation. Through strategic behaviour, Ban Khun Samut Chin community elites presented their village and its identity differently according to the situation.

All in all, the key message from this section is that disaster-affected populations should be looked at in a new way. In the face of rapidly changing ecosystems and livelihoods, members of the Ban Khun Samut Chin community had been empowered through engagement with various groups of external stakeholders. They had articulated their idea of community in a strategic manner and gained leverage for collective resources through many such interactions. Each community identity that they articulated was provisional; it shifted subtly from one situation to the next. This re-articulation of their identity, which produced divergent self-images, was not the result of confusion but purposeful and tailored to suit different situations and expectations of the social actors with whom the community engaged.

6.2 Identities, Beliefs and Life Strategies of Individual Community Members

In this section, I explore the various different beliefs among Ban Khun Samut Chin villagers and their hopes for the future in the village. Given that the situation of

coastal erosion in the village was very severe, I was astounded that most of the villagers whom I encountered did not seem to have a sound plan for their future. My observation was that local leaders were active in working to save the village, and any talk about relocation was disturbing for them, while others seemed much more relaxed and were willing to talk about alternative plans. This made me begin to wonder whether or not it really was community consensus to do everything possible to remain in the village, or whether the leaders were driven by their own interest, in terms of staying in order to maintain their own social status.

Many of Carey's (2010) insights from the towns he studied in the Cordillera Blanca also applied to the situation in my study. For example, the village chief always complained that the community would no longer be a community if it relocated and that its members would disperse and their lives would never be the same again. To me, this sounded provocative and plausible. However, other relatively less influential community members with whom I had interacted did not seem to have such strong attachment to community life. Each member of the community was rather more focused on securing the livelihood of its own family. Many who had always lived in the village were thinking of resettling close to relatives who lived elsewhere. Many of those who had married into the village were thinking of returning to their hometown or finding somewhere else to earn a living. It seemed that dominant members of the community were afraid that loss of the village would lead to loss of their personal social status. In fact, during a trip back from a workshop with the Chulalongkorn research team in Rayong province, I overheard the village chief discussing her family's rubber plantation with another pond owner. I

heard that she owned a plantation elsewhere. I supposed it would be a safe haven for her family once the village became inhabitable. Once we returned to the village, I asked the chief about the plantation. She admitted that her family had acquired a rubber plantation in another province a few years ago that could meet their needs. Her response confirmed my understanding that her family actually had a plan B, in contrast to the way that the chief and Po had normally presented themselves, at least to outsiders like me. Given their economic resources, they would have relatively less difficulty adjusting to a new livelihood. However, it could take decades for them to attain similar social status in another place.

Similar to the glacial melt in Carey's study, coastal erosion had in fact helped promote tourism in the village. As mentioned earlier, a group of academics from Dhonburi Rajabhat University had done research to help promote tourism in the study area and the temple in the sea was the village's unique selling point. Incidentally, that was the reason that I had originally wanted to visit the village. Coastal erosion had brought hardship to the Ban Khun Samut Chin villagers but it had also opened up opportunities for change. The context of their changing environment presented them with an opportunity to turn a negative and desperate situation into a supplementary source of income. Po built a guesthouse on one of the family's aquatic ponds. The village chief's house had become a learning centre. A number of organisational visitors, such as school fieldtrips, corporate social responsibility trips and so on, came to the village regularly to plant mangroves. The mangrove reforestation project had generated supplementary income for some households by propagating and selling young mangroves to the community natural

resource conservation group. The group then made minimal profit from the visitors, which provided some financial aid for group activities. Local government had also funded concrete bridges to replace some wobbly old wooden bridges in the village, in order to make it more accessible for tourists. Within a year after I had returned from my fieldwork, tourism in the village had become very promising, thanks to the TV programmes *Lovers on Tour* and *Overnight with Superstars* (Polyplus Entertainment, 2012a; 2012b; 2012c). Other pond owners began to enter into the guesthouse business. Some villagers, mainly those active members of the conservation group, found an additional source of income by working as local tour guides. Others were hired to pick up litter left by tourists. The villagers were not simply helpless and dependent victims; rather, it looked as if they had a clear understanding of the opportunities that had arisen as a result of erosion, and were trying to make the most of the situation, while retaining their lives and their communities as best they could.

I was very curious about what the villagers' were planning to do, once they could no longer live in the village. Yet, whenever I brought up the topic with the village chief's family, I was always told that they had never thought about it, because they had no intention to move out. At one point, Po got visibly upset and I did not dare to talk about the issue in front of him ever again. Although he did make it clear that his family did not want to think about moving, and the village chief often said that she was born in the village and she would die there, their interview on one particular TV programme showed that deep down they knew the village would soon be gone.

The Chief: The (coastal) erosion forced us to flee inland. We had been struggling to help ourselves. We adopted some protection strategies, like bamboo revetments and the heightening of dikes. We were working together with our neighbouring villages. When the situation got worse, others became worn out and moved away. For example, villages 8 and 10 have almost gone. The erosion was so severe that those villagers migrated. Once our land has gone, Bangkok will be next. If nothing is to be done for Phra Samut Chedi, the district will collapse within the next five years. It will definitely sink if nothing is being done. There is no way that we can carry on.

Po: Since the (coastal erosion) problems had happened, the villagers started losing their livelihood and housing. They hence moved out. They moved to a city to get a job in a factory or in an office. Our occupation is dying out. If we don't receive any help, I think (our) village 9 of Laem Fa Pha sub-district will definitely disappear from the map of Thailand. There is a mere kilometre of land left between the coast and the village. Perhaps within a year or a decade, the village will completely vanish.

(Author's translation)

Likewise, other villagers, whom I was able to observe and whom I talked to, seemed to have had conflicting beliefs and hopes regarding matters related to coastal erosion. This inconsistency confused me in the early days of my research. My expectation was that, as villagers believed that within the next five years they would no longer be able to live in the village, they would be actively preparing themselves for relocation. Taking into account the high risk of radical changes in their livelihoods, I had thought they would be more interested in occupational training and would have invested more in education in order to diversify their livelihood in terms of assets and capabilities.

However, I met quite a few teenagers who had not bothered to finish secondary school. When I was helping one of them on his English 'take home' exam, he told me that he would end up being a fisherman like his father; that there was no point in

going to school to study subjects that he would not be using anyway. When I asked him what he would do if he could no longer live in the village, he simply replied that, in that case, he would become a rice farmer where his maternal grandparents lived. His mother did not seem to worry much about his education either. Their family income was mainly from his father, who worked as a pond labourer. Yet, they seemed relaxed about their future, with an attitude of “whatever will be, will be”. Another case was a teenage girl who was related to the chief’s husband. She was from a better-off family, who owned several ponds and had a shrimp paste business. The girl dropped out of school during my stay, saying that she did not enjoy it. Her father proudly told others that he could look after his daughter. She could help him in the family business so it did not matter if she did not finish school. My expectations about their livelihood strategies had been very mistaken.

Swidler’s (1985, 2001) framework for understanding what she calls “strategies of action” can help us make sense of such sophistication in villagers’ lives. I do not think any of Ban Khun Samut Chin villagers wanted to believe that they would not have been able to spend the next decade in the village. The breakwater model invented by the Chulalongkorn scientists had given them hope. Some of them had wishfully thought that the intervention would rescue their coastline from erosion. Their local government had agency provided financial support for the pilot project that had proven successful. Extension of the breakwater model to cover the whole village’s coastline, however, did not appeal to the local agency, as it was not financially feasible. The village chief had therefore written to several state agencies, and to the King, asking for help. In addition, she had started fundraising to finance

this mega project. She wrote to big business people, in the country and to international figures, who were either well-known for their engagement in philanthropy or for their interest in environmental issues.

Many villagers, however, were not fully convinced that the breakwater would defend their village forever. Some confessed to me that they did not enjoy taking part in Chulalongkorn research. One complained over and over again about the Rayong trip we attended. She told me that having to come up with answers during the workshop was very stressful for her, and that she never wanted to do anything like that again. Also, she did not think that the outcome of the workshop would be of much help for the villagers. She was quite certain that there was no way they could fight the natural forces; soon they would have to leave the village behind and move on. Not all Ban Khun Samut Chin villagers attended the workshop in Rayong; only those relatively more active ones did. We were away for three days and two nights. During the trip, I shared a room with four female villagers who were about my mother's age. None of them showed any enthusiasm for the workshop, and I got the impression that they enjoyed the trip more as a free vacation. They were not particularly optimistic about the outcome of the project itself.

During the workshop, the Chulalongkorn research team reminisced about the early days of working with the villagers. The project had not received much attention from adults in the village back then. The majority of participants had been teenagers. At the time, the researchers had been worried that the youth would be "too young" to take part in the local planning process. Although the researchers claimed that the

local youth had proven to be young, with ideas that were like a breath of fresh air, it indicated that in most families, adults who actually made the household decisions were not particularly keen to participate in collective disaster risk management.

The adult villagers were obviously worried about their futures, even though quite a number of them did not seem to have a proactive approach beyond improving their human capital by investing in education or participating in research projects to secure future possibilities by altering their livelihood assets. However, perhaps this expectation on my part was a bias of my own middle-class perspective. A degree is my passport to a career, since I have not inherited any specialist knowledge or skills that may have been passed down through generations of families, comparable to those of the Ban Khun Samut Chin villagers. In view of their changing environment, the villagers might not have been able to make a living as coastal fishermen in their current residences in the near future as their predecessors once had. Still, they would be able to exercise their fishing skills elsewhere. And aside from the fishery skills, which they could put into use directly, they could possibly apply their capability for intensive labour to other manual jobs.

It is also possible that for many villagers were inclined to fall back on their social safety net, rather than invest in enhancing their human capital to cope with the impact of the coastal erosion that was encroaching their village. I observed that the villagers valued social networks as their means to achieve and attain other assets. For example, the village health worker had not been showing up daily at the local health centre as he should have been, but this was not reported. Leaders in the

village persuaded other villagers that getting him into trouble might affect their health service in the long run. At least they got free medicine once in a while, during visits for regular check-ups with local patients with chronic diseases. Besides, he had helped the village chief by translating fundraising letters into English. Also, when I suggested that a group of villagers might want to start their own commuter boat business, seeing that they were spending a fortune on transportation, I was told that they would not want to estrange themselves from the existing service providers just to improve financial status. It was simply not worth it. In addition, Ban Khun Samut Chin community members had significantly augmented their social network by joining the Upper Gulf of Thailand Conservation Network, as discussed in Chapter Four. Apparently, the same principle applied to villagers' relationships with family and friends living elsewhere, whom they could turn to in times of need.

It is possible that Buddhist teachings on karma helped to keep a sense of calm among villagers during hard times. During a meeting about disaster preparation planning organised by the Laem Fa Pha Sub-District Organisation, the Chief Administrator of the SAO tried to comfort those affected by telling them that if they eventually did have to let go of their village after trying their best to save it, then they would have to cope with it. He told them that they might have done something bad in a previous life and now had to be paid back. For a non-believer like me, the statement sounded absurd yet the villagers seemed to take it very well. They fought to maintain the status quo and, ironically, they accepted their fate at the same time.

Perhaps it had been naive of me to think that the villagers would have wanted to live the kind of life that I aspired to. I had expected them to cope with erosion using similar strategies to those that people from my background would adopt. Ban Khun Samut Chin villagers might have needed to adjust their aspirations according to their ability to retain their livelihoods in the village. However, the “repertoire” of routines, styles, skills and habits that they possessed would help them to survive and possibly even thrive, wherever they decided to resettle in the future.

6.3 Discussion

Ban Khun Samut Chin’s community identity, as articulated by its dominant members in their struggles to maintain the status quo was quite successful at attracting media attention. However, these efforts had helped to reinforce a mythical image of the community as a small, integrated group, using locally evolved norms to manage resources in a sustainable and equitable manner. But research has shown that such images fail to take into account differences within communities. This does not mean that local knowledge should be disregarded. Rather, we should recognise the power dynamics that are involved in its creation and negotiation. We should remind ourselves that decisions derived from group consensus do not reflect the complexity of most people’s everyday lives. Group forums have the power to crystallize ideological variations and recode public rhetoric and actions; therefore, they can lead to a unitary view of interests as well as assert consistent and coherent effects on actions, even if individuals are divided in their beliefs (Swidler, 1995; Kothari, 2001). Taking into consideration differences in needs, desires and strategies of

action, without giving people any unrealistic expectations about being able to continue their livelihoods in the village for much longer, development planners and practitioners might be able to come up with financially feasible projects that are relatively more appropriate for the different groups of Ban Khun Samut Chin villagers, in order to facilitate transitions to new livelihoods.

Chapter 7

Conclusion

Since 2006, community members in Ban Khun Samut Chin have been engaged in a series of complex interactions with various waves of external stakeholders, all concerned with issues of coastal erosion and ecological degradation in the village. In the course of these interactions, the villagers, especially the local leaders, have become actively involved in the elaboration of a kaleidoscope of different narratives about their environmental predicament, the risks the villagers face, and which future livelihood scenarios might offer realistic possibilities for them. Engaging with these different stakeholders, and negotiating these different narratives, they have become skilled in articulating the community's identity in sophisticated ways, in order to maintain community solidarity and mobilize resources for natural resource management and disaster mitigation. As Chapter Five has shown, different social actors have come to the village with different agendas and different ways of framing the risks and opportunities the villagers there face, offering narratives with very different implications for the community's adaptation efforts. This is not surprising; Hajer's (1995) framework has highlighted how, in the recognition and social negotiation of environmental problems, a diversity of alternative views of particular environmental agendas tend to arise.

The Chulalongkorn research team believed in the effectiveness of the breakwater model they invented. They envisioned that Ban Khun Samut Chin villagers might be able to continue living in the village if the breakwater were built. The media outlets,

however, tended to link the environmental changes in the village with broader environmental and economic issues, such as global warming and urbanisation, sensationalizing the challenges faced by the community in order to capture the attention of the general Thai public. The network of popular organisations and the local government agencies, however, were more concerned about particular local livelihood issues such as lack of land entitlement and overfishing. To some extent, these findings support Forsyth's generalisations about how "middle-class" actors in Thailand tended to focus on the protection and conservation of natural resources while the "lower-class" activists tend to be more livelihood oriented.

Within the community, at the collective level, Ban Khun Samut Chin leaders strategically highlighted particular dimensions of their problems, and flexibly rearticulated their identities and values, to match particular audiences and particular goals, in order to pursue the community's interests as they saw them. For example, the village chief presented the problem of coastal erosion in their village as a consequence of the broader environmental problem of global warming when writing a fundraising letter to international organisations. When trying to get attention at the national level, where many potential supporters have been obsessed with community-based development approaches in recent years, she usually presented the community as a unified group, highlighting their rich traditions, self-sufficiency and strong sense of community, which would all be lost with the last piece of land, unless the breakwater was built. She also presented her community as a fort for the capital city, Bangkok: once Ban Khun Samut Chin disappears, Bangkok would be the next.

At the individual level, however, the villagers, especially the more politically active members and those local leaders who have been directly engaging with external stakeholders, have been exposed to various framings of the ecological problems there, with quite different implications for their future. One might imagine that living with uncertainty -- with a variety of possible scenarios -- the villagers might be panicking, unable to continue with their normal lives. As a matter of fact, their exposure to this uncertainty, to the puzzling and sometimes conflicting predictions about their future, also served to inform them about diversity of possible life strategies and choices. This rich diversity of narratives and possible scenarios, one might imagine, could actually allow them to be relatively resilient and adaptable to most unexpected event, similar to Swidler's middle class research subjects in San Jose, whose adherence to a complicated multiplicity of different value systems and commitments regarding life and love, allowed them to adapt to unexpected twists of fate in their emotional and family lives (Swidler, 2001). The local leaders seemed to have a few alternative concrete plans about their future. For example, the village chief's family have maintained a rubber plantation in another province, in case of inevitable relocation. At the same time, they have been investing in local tourism, to take advantage of the challenges they face in their swiftly changing environment in the village. Meanwhile, many other villagers had only vague ideas about what they might do, many considering the idea of moving closer to their relatives elsewhere if their livelihoods in the village were destroyed, but such ideas about possibilities for a "Plan B" had not yet materialized into concrete plans.

The very fact that the local elites have been capable of embracing such complicated sets of beliefs and hopes about their changing environment, narratives that have sometimes been inconsistent and even contradictory, implies they are open to a variety of ideas to help them make sense of the world and, as a result, to various possibilities regarding strategies for adaptation. This sociological thinking is supported by recent ecological perspectives that emphasizes resilience as an ecological goal instead of what Holling (1973) describes as ecological longings for “equilibrium, the maintenance of a predictable world.” In his work, Holling compares resilience to the kinds of stability frameworks that have often dominated in ecological thought and conservation management. He writes:

A management approach based on resilience, on the other hand, would emphasize the need to keep options open, the need to view events in a regional rather than a local context, and the need to emphasize heterogeneity. Flowing from this would be not the presumption of sufficient knowledge, but the recognition of our ignorance; not the assumption that future events are expected, but that they will be unexpected.

(Holling, 1973: 21)

According to Holling, a resilience framework can better accommodate adaptation to change, because it does not require predictability for precise responses to change, but rather flexibility, the ability to absorb shocks and adjust to contingencies.

Drawing from his work, we could suggest that communities or individuals that take into account variability, risk, and nonlinear alteration in their environment might be more likely to be able to cope with, and adapt to, change than those that fixate on maintaining their ecosystems and livelihood practices in an equilibrium state. From this perspective, the future of Ban Khun Samut Chin villagers might not be so hopelessly gloomy.

Botkin (1990: 130) also emphasizes the complexity of nature, and the need to open ourselves up to unpredictability in our interactions with the natural world:

Managing from the comfort of a deterministic world when one lives in a world of chance is like following the beam of a flashlight at night ... what appears in the beam is very clear, but one is likely to stumble and fall over the roots and rocks that lie just outside one's vision. Once we accept the idea that we can deal with these complexities of nature, we begin to discover that the world of chance is not so bad, that it is interesting and even intriguing now that we understand that chance is not chaos ... Thus we must accept nature for what we are able to observe it to be, not for what we might wish it to be.
(Botkin, 1990: 130)

The thought that the environment is always in transition, Botkin notes, seems problematic in natural resource management, as it can be challenging to control something that is continuously changing. Also, it can be inconvenient, for we might witness things that we do not want to happen. Evidence from Ban Khun Samut Chin illustrates that although the village chief's family are well equipped for the rapid environmental changes they face, they still feel uncomfortable and are reluctant to even discuss their alternatives, as such talk reminds them of the changes they do not want to see.

The coastal erosion has posed some serious threats to livelihoods in Ban Khun Samut Chin but, at the same, it has also brought some of the villagers opportunities to enhance and diversify their livelihood "capitals" which further inform their future livelihood strategies (Scoones, 1998). To begin with, the local leaders have acquired human capital by developing their skills to deal with all kinds of visitors, i.e. academics, journalists and politicians. They have learned to say and show what

these actors common expected to hear and see, in order to leverage resources for the community's adaptation to their ecological changes. I experienced this myself during my research. The village chief and her son, who are the community's gatekeepers, would cleverly recommend to me what I should do, who I should talk to, where I should visit, etc. They clearly know what researchers want, and try guide us. They have clearly been empowered through their interactions with numerous stakeholders.

Also, the leaders, and more active villagers in Ban Khun Samut Chin have enhanced their social capital through expanding their networks with other coastal communities facing similar problems. The community leaders, in particular, have make connections with many external stakeholders who are their potential supporters. These stakeholders help keep the conversations about the tragedy at Ban Khun Samut Chin going. As more and more people have heard about the village, they become interested in experiencing the life of the villagers.

This has led to increases in economic capital for many villagers, especially the better-off. Guesthouses have mushroomed to serve the flood of tourists. The better-off have benefited considerably from these accommodation services. Some fishermen have also profited from increases in sale of local produce. Some have been hired as a local guides or garbage collectors. The community natural resource conservation group has also benefited from these new income-generating activities, such as from the mangrove reforestation activities and the compulsory donations required from the guesthouse owners. The group uses some of this income to finance their

activities to further protect the village's natural resources, such as the monitoring of illegal dredging along the village coastline, solid waste management within the community, and funding their travel expenses to meetings with other allied coastal communities. Some of these livelihood assets, which the community members have acquired through their struggles against the sea may even be useful for their future livelihoods someday, even if the village eventually disappears, and they have to relocate.

Even though opportunities for further acquisition and diversification of livelihood assets may sometimes arise from the struggle to live with disaster, it should be noted that the beneficiaries have primarily been the local leaders and their associations. In contrast to Archer and Boonyabancha's (2011) optimistic view about the possibilities of disaster-affected communities to rebuild their livelihoods, as well as to be potentially empowered, I suggest that a closer look should be paid at who actually benefits and what happens to the others. In addition, this "disaster economics" seems to create a dilemma (Carey, 2010: 12). In order to be able to secure this acquisition of new assets and capacities, Ban Khun Samut Chin community leaders might have to keep the momentum of certain narratives going, like those narratives that stress that they really are an idyllic, self-sufficient, united community, which has fascinatingly turned their crises from coastal erosion into fruitful economic prosperity. Such narratives could potentially blur the vision of the less politically-active villagers, for they might lead them to believe that they could actually spend many more years in Ban Khun Samut Chin, enjoying relatively minimal effects from the disaster. This might divert some villagers' investment of

time, energy and capital away from diversifying and enhancing their livelihood assets in order to prepare for the unexpected.

In his study, Carey explained the resistance to relocation among the better-off in the Cordillera Blanca in terms of their defence of the symbolic dimensions of their social dominance. I think there are similar issues at play in my case. The local leaders seem to have more to lose, both economically and socially, if they have to abandon the village. It might not be so difficult for them to recover their economic power elsewhere. However, it is unlikely that they would ever again enjoy the role of “power brokers” that they now play in Ban Khun Samut Chin. As for the other Ban Khun Samut Chin villagers, they might not have as much to leave behind. Yet, they do not have much to look forward to, as they appear to live their day-to-day lives as if they were not facing a series of very serious threats from severe coastal erosion. Although they may hope and think that they will be able to rely on the social networks of their relatives -- their customary strategies of action in coping with everyday life -- the transition is sure to be very difficult for them. This is because they have not necessarily benefited to the same extent from the epistemological sophistication that their local leaders have gained through their active engagement with external stakeholders.

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