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Hue Le

Competing for Land, Mangroves and Marine Resources in Coastal Vietnam

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Hue Le

Competing for Land, Mangroves and Marine Resources in Coastal Vietnam

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Cover illustration: Trong them that nhieu rung duoc [Plant more mangrove forests]. Courtesy of Nguyen Nhi (1977).

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Series Editors' Preface

This volume, which focuses on Vietnam, directs attention to the turbulent history of tropical coastlines and the special role of mangrove environments therein. Much attention is nowadays devoted to the protective functions of mangroves in the context of climate change as well as to their rapid destruction, such as through the expansion of shrimp cultivation. But mangrove forests, and the lands on which they grow, also have important livelihood functions for nearby communities. Hue Le discusses the changing relationships between human society and such mangrove-forested lands in the context of a 150-year time period. Within this time frame, the country we now know as Vietnam has undergone major geopolitical shifts: from making up part of precolonial empires, to French colonial occupation, to wars of independence and reunification, socialism and, more recently, to economic reform under Communist leadership. These shifts are reflected in the way coastal lands have been managed and exploited. Using a political ecology lens, and drawing on the results of careful ethnographic enquiry, Le explores the manner in which local inhabitants have responded to changing conditions.

This Mare Publication Series highlights the many ways in which human societies relate to marine and coastal environments and how contemporary challenges are transforming those relationships. We aim for global coverage by including authors from all parts of the world. Hue Le joins the growing group of young scholars who have contributed to the MARE Publication Series by making perceptive social science analyses of current topics in the maritime and coastal sphere, with an emphasis on voices from below.

The MARE Publication Series commenced in 2004 with Amsterdam University Press and moved to Springer Academic Publishers in 2010. The Series has published 24 edited and single-authored volumes on a variety of regions in the topical

field of people, coasts, and seas. We are as ever grateful to Margaret Deignan, Joseph Daniel, and other staff at Springer who have facilitated the production process. We wish to congratulate the author – Hue Le – on the completion of this fine book.

Amsterdam, The Netherlands J. Maarten Bavinck

Tromsø, Norway Svein Jentoft

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In 2005–7 I returned to Vietnam from the Netherlands as co-principal investigator for a project on "Community Forestry and Poverty Alleviation in Vietnam", funded by the Ford Foundation in Vietnam. In 2007–8, I received a grant from the Ramsar Convention on Wetlands to the "Community-based Wise Use of the Local Wetland at Xuan Thuy Ramsar Site, North of Vietnam" project. From 2009 through 2015, the Swedish International Development Cooperation Agency (SIDA) and the International Development Research Centre (CIDA) through Asian Institute of Technology in Bangkok, Thailand generously provided support for our projects "Exploring Effects of Bio-innovation on Shrimp Farmers in Vietnam"; "Policy Advocacy Campaign in Vietnam: Stakeholders and Wastewater Management in Craft Villages in the Red River Delta of Vietnam"; and "Adapting to Climate Change in Peri-Urban Southeast Asia".

In 2011, a National Science Foundation (NSF) Geography and Regional Science Division grant no. 1061862 generously provided support our project "Downscaling REDD policies in developing countries: Assessing the impact of carbon payments on household decision-making and vulnerability to climate change in Vietnam led by Dr. Pamela McElwee at Rutgers University. This project was additionally funded by the Economy and Environment Program for Southeast Asia for fieldwork in 2011. In 2012–2015, with the tireless support of Dr. Pamela McElwee we were provided a US Agency for International Development Partnerships for Enhanced Engagement in Research grant titled "Research and Capacity Building on REDD+, Livelihoods, and Vulnerability in Vietnam: Developing Tools for Social Analysis and Development Planning". In 2015–2018, Social Sciences and Humanities Research Council of Canada generously funded our project "Urban Climate Resilience in Southeast Asia Partnership (UCRSEA)". In 2017–2020, I received funding from a National Foundation for Science and Technology Development (NAFOSTED) and Newton Fund grant to the "Harnessing multiple benefits from

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September 2020 Hue Le

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Abbreviations

PES	Payments for Ecosystem Services
IFRC	International Federation of Red Cross and Red Crescent Societies
MARD	Ministry of Agriculture and Rural Development
EJF	Environmental Justice Foundation
EU	European Union
NGO	Non-Government Organization
DPSIR	Drivers, Pressures, States, Impacts and Responses
CBMM	Community-Based Mangrove Management
DRV	Democratic Republic of Vietnam
WW2	World War II
ROSCA	Rotating Credit and Savings Association
SNV	Netherlands Development Organisation
FAO	Food and Agriculture Organization of the United Nations

Chapter 1
Introduction: Mangrove Systems Facing Enclosures, Markets, and Social Inequality



Abstract This book presents a historical and ethnographic study of changing mangrove management in Vietnam over the past 100 years, grounded in a case study in the Red River Delta in northern Vietnam. The book focuses on three primary dynamics that have played out in mangrove management over the past century in Vietnam. First, enclosure movements have restricted access to mangroves by user communities at different times in Vietnam's history. Second, mangroves have been valued in different ways at different points in time. Third, the impacts of enclosures and valuation of mangroves for more distant markets have resulted in social and class differentiation. The result of these pressures is that there have been erosions of norms, rules, and collective actions that protect and nurture mangroves. Further, it is argued that accomplishing sustainable mangrove management is of great importance in the wider context of coastal zone management, without which conflict will occur with environmental, socioeconomic, and cultural deterioration.

Keywords Mangroves · Enclosure · Markets · Valuation · Social differentiation

"Shrimp have very small mouths, but they can eat my wife, my house and my motorbike. If they die, I will lose everything," Mr. Son told me. Mr. Son's reflection upon shrimp farming reveals dramatic changes taking place in the mangroves and the livelihoods of those living close to the mangroves over the last few decades in Vietnam. Son and his family have lived in a coastal village next to the mangroves in the Red River Delta for generations. According to Son's parents, no one remembers exactly the history of the village mangroves and how large the area of mangroves once was. They just recalled that, in their childhood, they followed their parents and grandparents to the mangrove forests to catch fish, shrimp, crab, and bi-valves and to collect bird eggs and honey for food and sale in the local market to buy rice. According to Son's parents, although there was no law on the exploitation and management of the mangroves and no one guarding the forests, no one cut living mangroves for firewood, but collected dead branches for firewood, and nobody shot birds for food either. As such, the villagers effectively conserved natural resources.

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Time has passed, and Son now also has his own nuclear family. For a while, Son thought his children's lives would be dependent on the mangroves like his, and they would conserve the mangrove forests as his parents had. But economic reforms (*Đổi mới*) introduced in 1986 in Vietnam changed the entire makeup of rural areas in Vietnam (Reed 2013: 267; Ngo 1993), and Son's village was no exception. However, the change in the appearance of the village has been exchanged for the loss of the mangrove Mother which had taken care of and fed her children—the villagers—for generations. Instead of going to the forest to catch crab, shrimp, and fish and collect firewood and honey as their ancestors and parents in the past, those villagers who had capital sources and connections cleared the mangroves for shrimp ponds and farmed bivalves on the intertidal mudflats. They became wealthy very quickly. The mangroves and intertidal mudflats that all villagers in the village accessed to make their living and where all citizens had the responsibility for managing the resources in an effective manner—the common property resources—have been privatized. Those who once treated each other as brothers and sisters and were willing to share food when in need suddenly became the enemies of each other.

Shrimp and clam farming also comes with much risk. In Son's village, many people have become rich quickly, while many others have failed and gone deeply into debt. The loss of land, houses, motorcycles, and family can happen anytime to anyone. Son's comments about his wife, his house, and his motorbike that could be eaten by shrimp, although they have small mouths, hint at the risk and the large amounts of capital the business of shrimp farming requires. Son sighed and did not know what the future would hold for him and his children, which explains why Son is pessimistic about the future of making a living in the changing context of rural Vietnam's coastal region.

This book is based on more than 3 years of ethnographic research with shrimp farmers and other families, and I focus on the relationship between people and their environment and the relationships among different resource-stakeholder groups. I explore how women and men have used and managed resources as they experienced environmental degradation and coped with government-imposed regulations on their use of these resources. I argue that the mangrove resource use cannot be understood without a concern for gender and that local-level studies can contribute to a better conceptual understanding of both the causes and the consequences of agrarian change by considering the historical, political, and institutional contexts. I demonstrate that coastal zones are areas of complexity, opportunity, and conflict. There are thus numerous opportunities to manage the coastal zone to support Vietnam's development goals of rapid economic growth, reduction of poverty, and climate change adaptation and mitigation. At the same time, the complex overlays of different interests, resource uses, and ecological processes, unless managed well, will lead to conflict, with environmental, socioeconomic, and cultural deterioration.

Given my focus on understanding the relationship between people and their environment and the relationships among different resource-stakeholder groups, this study falls into the field of political ecology. Political ecology pays attention to political influences on human/environment interactions and on environmental change. For political ecologists, it is important to understand what influences the behavior toward

nature by different groups of people as defined by gender, class, age, and social status within communities. Authors working in this field pay attention to the processes within different social groups and the resource flows associated with particular social relationships. Production and reproduction are embedded in wider social and political relations, with effects of age, social position, and gender on individuals' opportunities. Employing political ecology, this book's case study of mangrove forest management shows that changing political and economic conditions have shaped access and use of marginal lands and directly affected marginal people (Hall et al. 2011). The book also shows that three primary dynamics have played out in mangrove management over the past century in Vietnam. These include enclosure, markets, and social differentiation that make it hard to support community-based mangrove management. The result of these pressures is that there has been the erosion of norms, rules, and collective actions to protect and nurture mangroves. This also explains why neither nationalization nor privatization of land has solved the problems of resource degradation and overexploitation, since both can be seen as a form of enclosure. The benefits and burdens of mangrove protection are not shared equally, and this problem helps explain why mangrove replanting programs have not been so successful because they have rarely addressed the real social pressures on mangrove systems.

1.1 The Global Importance of Mangroves

Mangrove forests around the world provide a variety of valuable direct forest products, including timber, firewood, charcoal, tannin, food, and medicines. Since the dawn of Asian civilization, people have been drawn to mangrove wetlands because of the goods and services they offer. Mangroves have played a critical role in the lives and economies of coastal communities. The use of mangrove forests for a variety of economic purposes has had a long and mostly successful history in Asia (Snedaker 1986).

Villages located within the mangrove areas are almost entirely dependent on the mangrove forest for their fuelwood. The volume of fuelwood consumed in rural area is a function of household size, income, and type of cooking. Fuelwood and charcoal are the main products obtained from mangrove trees in Southeast Asian countries, particularly in Thailand (Aksornkoae 1995). Mangrove wood can be used as fuel in coastal-village industries for the production of burnt bricks and tiles and in lime burning where alternative sources of fuelwood are not available (Mainoya et al. 1986).

The utilization of mangrove trees for timber in large quantities originated in Indonesia and Bangladesh (Burbridge 1980; Ahmad 1980). The importance of mangrove poles in traditional house building and mangrove wood for construction in many countries has been noted, for example, in Papua New Guinea, Fiji, Kosrae, Solomon Islands, Kawainairara (Lal 1991), and Vietnam (Le 1997). For the construction of thatched roofs of traditional houses, Nipa and *Metroxylon* sp. palm fronds are commonly used throughout the Pacific. Nipa palm leaves are still extensively used as thatching material in most countries in the region (Hussain 1995).

A large quantity of mangrove wood has been harvested for wood chips in countries such as Thailand, Malaysia, and Indonesia. Grasses and mangrove leaves are collected and used as fodder. Tannin extracted from mangrove bark is used by local leather-processing companies in Latin American countries such as Panama and Costa Rica, but very little is used in Southeast Asian countries, except for dyeing fishing nets (Aksornkoae 1995). Some countries such as India and Indonesia use mangrove trees for livestock grazing. Beeswax and shells are other products from mangrove forests with the collected shells burnt to produce lime. Honey is also produced, especially in Bangladesh and Vietnam. Many kinds of mangrove species are used as medicinal plants, although scientific studies are urgently required to demonstrate their real value (Hussain 1995).

In Vietnam, several species of mangrove trees have provided staple foods for coastal people in Hải Phòng and Quảng Ninh, particularly during the famine of 1945, and for the guerrillas in the resistance base at Cà Mau cape surrounded by American troops. Fruits of *Avicennia*, *Flagellaria indica*, and *Nypa fruticans*; kernels of *Heritiera littoralis* and *Pongamia pinnata*; propagules of *Kandelia candel* and *Rhizophora*; tender leaves of *Acrostichum aureum*, *Hibiscus tiliaceus*, *Heritiera littoralis*, *Thespesia populnea*, and *Suaeda australis*; and radicles of *Rhizophora*, *Bruguiera*, *Sonneratia*, and *Ceriops* were all consumed by residents and soldiers (Hong and San 1993).

Many coastal areas that have mangrove forests have become attractive destinations for national and international tourists. These include Quảng Ninh, Hải Phòng, Cát Bà, Nam Định, Thái Bình, Cần Giờ, Minh Hải, and Cà Mau, among others, creating employment and generating a great source of income for local people. It should be noted that Xuân Thủy, the first Ramsar site in Vietnam, has great potential for ecotourism, education, and training for officials involved in wetland conservation in other provinces (Nguyen 2014).

Mangrove forests are also reservoirs of biodiversity as the breeding habitat for diverse species of marine organisms, waterbirds, migratory birds, and terrestrial species such as monkeys, wild boars, and boa constrictors (Hamilton and Snedaker 1984; Hong and San 1993; Janssen-Stelder et al. 2002: 455). Mangroves are rich in biological diversity including many varieties of flora and fauna of specialized species well adapted to the unique conditions of mangrove ecosystems (Aksornkoae 1995).

In Vietnam, mangrove researchers have listed 51 species (Hong and San 1984), of which 49 are common. The mangrove environment is not as favorable for terrestrial animals as the inland forests due to the swampy soil and lack of freshwater. Nevertheless, abundant food sources attract various species of birds, reptiles, and mammals, including a few endangered species. In the Cà Mau mangrove forests, there were once tigers, leopards, crocodiles, and monkeys. Snakes used to be abundant in the forest where they could find their favorite food which was bird eggs and young birds (Hong and San 1993). The forests were also the nesting place or food source for more than 200 bird species, including rare ones. These species used to be common in Southeast Asia, but now few remain in the Mekong River Delta, Cambodia, and southern Thailand (Quy 1984).

Several migrating bird species were found in the mangrove forests as well. In the breeding season from April to February of the following year, they gathered and built their nests in huge flocks in the mangrove forests which were called "bird sanctuaries." There were ten bird and bat sanctuaries in Cà Mau (Hue 1994), six of which bat sanctuaries were private. The Tân Khánh Sanctuary with an area of approximately 130 ha is considered the largest natural bird sanctuary in Southeast Asia (Hong 1996). The droppings of terrestrial animals living in the mangrove forests were a source of nutrition for the forest trees and also served as a source of food for small invertebrate animals, shrimp, and fish in canals and streams.

The importance of mangroves in fish production has been well recognized. The mangrove ecosystem supports a variety of fish, crustaceans, and various kinds of mollusks with many of these species harvested for subsistence and commercial purposes. They use mangroves as nursery grounds and for shelter during their juvenile stages. It can be seen that many mangrove dwellers catch marine animals around mangrove forests. The mangrove or mud crab (*Scylla serrata*) is the largest edible crab in the Indo-Pacific region and is very common in Vietnam's coastal zone. Aquaculture is also widely practiced in mangrove areas, particularly in Southeast Asian countries (Aksornkoae 1995).

In Vietnam, aquaculture products are very significant and exploited from the canal and river systems and also from the coastal waters adjacent to the mangrove areas. Three groups of products of great economic value are fish, shellfish (crabs, shrimps), and mollusks. Large populations of *Scylla serrata* inhabit mangrove areas and have a high economic value because the meat is very tasty with a high nutrient content. Crab catching is an important activity among the traditional fishermen and is normally undertaken along the banks and the confluence of mangrove rivers and creeks. Mangrove crabs are mainly caught with baited hand traps or crab hooks. Many species of fish were found as well.

Hook and line, baited portable fish traps, and simple nets are the oldest methods of fishing in Vietnam. Hook and line are practiced during high tides with the bait often small prawns or worms (Chan and Liew 1983). Baited portable fish traps are widely used throughout mangrove areas. Along the Bạch Đằng River, fishermen construct small dikes around the mangrove patch for laying the fish traps.

Some edible mollusks, such as oysters, mussels, and other bivalves, live in and around the mangrove swamps. Most of the mollusks are collected by hand, but some burrowing species such as *Cyclina sinensis*, *Meretrix*, and *Mactra quadrangularis* have to be dug up. Local people use a light plank to move across the soft and deep mudflats. They place one knee on the plank and push through the soft mud with the other leg. This activity is conducted mainly by women during neap tide (Nielsen et al. 1998)—a tide just after the first or third quarters of the moon when there is the least difference between high and low water.

Mangrove forests are also internationally important, storing roughly two and a half times the amount of global carbon dioxide emitted annually (Siikamaki et al. 2012), and represent a key ecosystem for combating climate change. Conversion of these coastal ecosystems will impact very large pools of previously sequestered

carbon. Residing mostly in sediments, this "blue carbon" could be released to the atmosphere when these ecosystems are converted or degraded (Pendleton et al. 2012).

However, the use of economic incentive mechanisms (e.g., payments for environmental services (PES) for carbon sequestration) is not yet widely applied in the world, but PES schemes are currently under discussion in Vietnam for mangroves (Tran 2017). According to Schmitt et al. (2013), payments for ecosystem services will contribute to sustainability of coastal livelihood improvements. By focusing on a case study of Cà Mau in the south of Vietnam, well known for Vietnam's best and most extensive mangrove resources, Tran (2017) points out that Cà Mau's mangroves provide a wide range of potential environmental services suitable for the payment of forest environmental services. However, due to political, legal, and policy issues on mangrove resource use and management, only aquaculture support services are the most promising for future payments for forest environmental services.

Mangroves also play an important role in protecting coastlines and riverbanks by limiting erosion, expanding the dryland, restricting saline intrusion, and protecting dikes, fields, and coastal inhabitants from damage caused by monsoons, typhoons, and rising sea levels (Barbier et al. 2011). In India, mangroves not only help to protect against coastal disasters but also reduce the death toll in villages during Indian super cyclones (Das and Vincent 2009). In Vietnam, mangrove forests offer protection to coastal communities from storm surges and erosion and by capturing sediment during periods of heavy precipitation, thus stabilizing shoreline sediments (IFRC 2016; Schmitt 2012). It is estimated that Vietnam faces an average of six to eight typhoons annually, causing fatalities and wreaking havoc on infrastructure and livelihoods (IFRC 2016). Nguyen et al. (2001) argue that mangrove restoration enhances the resilience of ecosystems at the landscape scale through enhancing species and functional diversity of suitable coastal regions. In Vietnam, restoration and rehabilitation of mangrove forests have been a central point of both governmental and nongovernmental actors to mitigate the impact of disasters (IFRC 2016).

Brown et al. (2006) reported that US$1 million invested in mangrove rehabilitation in northern Vietnam saved US$7.3 million annually for dike maintenance. The evaluation of the impact and cost benefit of the Community-Based Mangrove Plantation/Disaster Risk Reduction Project shows that mangrove afforestation can be an efficient and effective tool for disaster mitigation and enhanced livelihoods, as well as for the mitigation of climate change (IFRC 2016).

1.2 Mangroves at Risk

Mangrove forests have dwindled due to uncontrolled wood extraction; agricultural expansion; mining activities; construction of dikes, dams, and roads; and most importantly commercial shrimp farming. According to Quinn et al. (2017), between 1980 and 2005, the global coverage of mangrove forests declined by 36,000 km^2, with a loss of 20% of the total mangrove area. But Valiela et al. (2001) offer an even

higher figure for the loss of mangroves, contending that at least 35% of the area of mangrove forests has been lost in the last two decades. Duke et al. (2007) say that mangroves are now critically endangered or approaching extinction in 26 countries.

Global changes, such as an increased sea level, may affect mangroves (Valiela et al. 2001). This is due to land-use changes resulting from climate change, coastal development, and aquaculture (Polidoro et al. 2010). The area under mangrove cover has been reduced by at least 25% in Brazil since the early 1900s (Giarrizzo and Krumme 2007) and by 33% since the 1960s in Zanzibar (Seto and Fragkias 2007). The condition of mangroves has also declined. In Brazil, habitat fragmentation along the east coast has been identified. Aquaculture is considered a threat to the extent and condition of mangroves in the region (Magris and Barreto 2010; Silva-Oliveira et al. 2011).

Vietnam's mangrove forests have also declined rapidly, in both area and quality. In 1943, mangrove forests were distributed extensively over an area of 400,000 ha (Hong and San 1993). The two Indochina wars, beginning in 1946 and lasting almost 30 years, greatly altered their composition and distribution. Nearly 40% of the mangroves in South Vietnam were destroyed by US herbicides (Hong and San 1993). After the war, rapid population growth and the increasing economic demand caused the mangrove forests to shrink even more (Phan 1982). A 1983 study revealed that only 252,000 ha of mangrove forests was left (Mai 1996), and the 2001 report of the Ministry of Agriculture and Rural Development (MARD) noted only 156,608 ha remained by 2000 (MARD 2001) with 160,000 ha in 2012 (Mai 1996), and 168,688 ha in 2013 (MARD 2010) with some replanting of the defoliated forests since 1975.

Commercial shrimp farming plays an increasingly important role in Vietnam, with Vietnam currently ranked as one of the top five shrimp exporters in the world. Due to the growing global demand for shrimp and the government's new economic reform policies (known as *Đổi mới*), commercial shrimp farming has expanded rapidly in Vietnam. Since 2000, the government allowed conversion of areas, traditionally used for rice cultivation, salt production, and fallow land, to shrimp ponds (Do Quynh 1987; Pham et al. 1999; Tran et al. 2004). Consequently, the areas for shrimp farming doubled in only 3 years, from about 250,000 ha in 2000 to more than 500,000 ha in 2003 (Tran et al. 2004). In 2007, the country earned about US$1.5 billion in export revenue for shrimp alone, accounting for more than 40% of the total seafood export revenue (VietNamNet 2008).

Both central and local governments have been providing incentives to shrimp farmers through loans, land titles, and other policies.[1] The shores and lagoons of

[1] On December 21, 1994, the Prime Minister issued National Decree 773-TTg, which stipulated that open coastal areas and waterfronts can be used for shrimp and crab farming. Decision 11/2006/QD-TTg stipulates an investment in self-producing disease-free and high-quality broodstock of giant tiger prawn and feed and vaccines using state-of-the-art technologies. Furthermore, in 2007, the government issued Decision 97/2007/QD-TTg, which encourages the development and application of biotechnology to fisheries, in general, and shrimp farming sector, in particular, to meet the growing demand in domestic consumption and exports up to 2020.

many coastal areas have been subjected to a kind of "gold rush" as poor farmers and their financial backers have sought to become rich through shrimp production and export. Loss of mangrove areas has increased vulnerability of the coast to tidal surges and hurricanes, and increased coastal salinity (Pham et al. 2015), with the area under mangrove cover reduced by 36% in 29 years (Quinn et al. 2017).

This has happened despite the fact that intensive industrial production is environmentally unsound, usually leading to dramatic declines in shrimp within 3 or 4 years of pond construction, leaving households indebted (Orchard et al. 2016). As such, local shrimp farmers would sooner or later become tenants on their own plot of land (EJF 2004). But according to de Graaf and Xuan (1998), the short-term economic gain of semi-intensive (2–3 t/ha/year) and intensive shrimp culture (4–8 t/ha/year) still appears to outweigh the negative impacts.

With the rapid loss of mangroves, local communities in many countries in the world have increased their efforts to conserve mangrove forests that have traditionally benefited them. These efforts in Thailand include preserving the remaining forests and replanting in degraded areas (Barbier and Sathirathai 2004). However, the case of southern Thailand also demonstrates that the willingness of households traditionally dependent on mangroves to participate in local conservation initiatives may vary considerably in areas with urban, industrial, and tourist developments (Barbier and Sathirathai 2004). The findings also revealed that those households relying more on mangroves for both direct and indirect income have a higher percentage of males and females involved in conservation (Barbier and Sathirathai 2004). Local people can be effective stewards of forest resources, and the evidence is that local restoration and management of mangrove forests can be a solution to achieve both economic and environmental conservation goals (Walters 2004). Tri et al. (1998) believed that rehabilitation of the mangrove ecosystem may provide a dual "win–win" benefit in improving the livelihood of local resource users, as well as enhancing sea defenses (see also Adger et al. 1997). However, Walters (2004) also pointed out that mangrove plantations are structurally and compositionally very different from natural mangrove forests.

Walters (2004) also contended that the state may still have an important role in the conservation and management of mangrove forests to facilitate community-based mangrove planting to make sure that mangrove management systems are qualified for successful conservation. For years, the Government of Vietnam has also recognized the importance of mangrove forests not only for the environment but also for the protection of human and socioeconomic development. Indeed, the government has invested in mangrove planting projects all over the country.

Among the organizations that have been at the forefront of mangrove planting is the International Federation of Red Cross and Red Crescent Societies (IFRC). The investments made by the IFRC in mangrove restoration in Vietnam between 1994 and 2010 (at original value) were US$8,885,000, the number of direct beneficiaries of the project was 350,000, and the area of mangroves today as a result of the project is 8961 ha. Several innovative approaches have been developed to restore mangrove forests, and a number of studies have been carried out on the relationship between mangrove protection, restoration, and coastal aquaculture.

Nevertheless, the total area of restoration is low (Mai 2016) compared to the losses in recent decades. One of the reasons is that Vietnam lacks any direct regulatory response to mangrove degradation and loss (Orchard et al. 2015). Most of the time, mangroves are managed and protected through various forest, aquaculture, and conservation policies rather than through a specific mangrove policy (ibid.). Veettil et al. (2018) pointed out that a historical lack of sufficient regulatory mechanisms for the protection of mangroves has also contributed to the loss of such ecosystems in Vietnam.

1.3 Argument of the Book

Despite the large amount of research on mangrove ecosystems, *researchers have failed to pay necessary attention to socioeconomic factors. The Government of Vietnam now recognizes the need to protect the remaining mangrove forests, but has not yet had much success in its efforts. The local people have been asked by the government to save the mangroves, but the request has not yet been widely heeded.* To closely examine the important social issues underlying Vietnam's current problems in mangrove management and conservation, this book presents a historical and ethnographic study of changing mangrove management in Vietnam over the past 100 years, grounded in a case study in the Red River Delta in the northern part of the country.

The book focuses on three primary dynamics that have played out in mangrove management over the past century in Vietnam. First, enclosure movements have restricted access to mangroves by user communities at various times in Vietnam's history. These enclosure movements have been driven by different actors and beneficiaries throughout history, such as the state and richer households and men, but the end results have been similar: the loss of access to land, resources, and income by some in the community, often the poor and women. In precolonial and colonial times, enclosures were driven by the state excluding some households, often to preserve benefits for the government and bureaucracies. In the collectivization era in the 1950s, enclosure was accomplished by cooperatives establishing rules on mangrove use by coop members, many of whom disagreed with these restrictions. In the *Đổi mới* era, which started in the late 1980s, policy reforms that encouraged private ownership of land and the development of shrimp aquaculture adversely affected mangroves with various impacts on the community, particularly women, children, and the poor. Enclosure has occurred both through expansion of shrimp ponds by wealthier and more politically connected households and through mangrove replanting projects such as the Red Cross, which also restricted where livelihood activities could take place.

Second, mangroves have been valued in different ways at different points in time. The reason is that mangroves are so diverse in their products and services and have such important roles to play both for household use and for national development, so that valuation becomes very important and has shifted over time. These

valuations have varied, including the value of the land underneath the mangroves (which contributed to their clearance for agriculture or aquaculture land); to direct mangrove products like wood and charcoal; to related wetland products like rush grasses and indirect products, such as the juvenile fish that live in mangrove roots; and the environmental services that mangroves provide (biodiversity, wave reduction, and disaster protection). Over the past century, these mangrove products have been valued both by local people and by growing regional and now national and international markets. But these different valuations were often conflicting, resulting in more economically preferred values like selling shrimp outweighing other less immediately tangible noneconomic values, such as disaster protection. The shift to a market economy in Vietnam in the late 1980s has opened up economic opportunities for many but has not had equal benefits in the community with a high cost to mangroves. These value conflicts have played out in different ways for different mangrove users, with powerful users and market values generally winning over local nonmarket values.

Third, the impacts of enclosures and valuation of mangroves for distant markets have led to social and class differentiation, among which related to equity—not everyone has equal access to mangrove products anymore. Some within communities benefit from mangrove expropriation such as large landowners or shrimp exporters, while the poor and the landless do not. This differentiation has always existed but has grown much more pronounced recently. Although Vietnam's economy as a whole has boomed since opening up to market forces in the late 1980s, many rural households have not been able to take advantage of changes and have lost their livelihoods. Women, especially female heads of households and girls, have been the most adversely affected as shown in this case study.

The result of these pressures is that there has been the erosion of norms, rules, and collective actions to protect and nurture mangroves. This explains why mangroves have been in decline throughout Vietnam over the past century, but especially in our study area Giao Lạc. This also explains why neither nationalization nor privatization of land has solved the problems of resource degradation and overexploitation because both can be seen as a form of enclosure. The benefits and burdens of mangrove protection are not shared equally, and this problem helps explain why mangrove replanting programs have not been so successful: They have rarely addressed the real social pressures on mangrove systems.

My research is framed by an interest in understanding mangrove systems by asking these key questions:

1. How have villagers and communities used mangroves throughout history, and what institutional factors have impacted their use at different times?
2. What forces of enclosure have operated to shift access rights to mangroves at different times?
3. What were the effects of national economic reforms on the valuation of mangrove resources and products, and how have markets for these goods evolved over time?

4. What are the differences within a mangrove-dependent community in terms of the variations in the valuations and uses of mangroves, particularly when understood through the lenses of gender, age, kinship, and class?
5. What have been the impacts of this social differentiation and changes in access on mangrove management strategies and successes?

1.4 Theoretical Background

Despite the fact that the mangroves are a vital resource, there are very few books that address mangrove forests and livelihoods (Hensel and Proffitt 2013; Sukardjo and Alongi 2012; Saint-Paul and Schneider 2010; Hogarth 2015; Alongi 2010; Hirway and Goswami 2007; Pernetta 1993). Most of these studies have been written by natural scientists and focus on the ecosystem relationships between mangrove conservation, restoration, and coastal aquaculture.

In contrast, this book focuses on the relationship between people and their environment and the relationships among different resource-stakeholder groups and how women and men have used and managed resources as they experienced environmental degradation and coped with government-imposed regulations on their use of these resources in coastal village in the Red River Delta. I rely on political ecological perspectives that pay attention to political influences on human/environment interactions and on environmental change. For political ecologists, it is important to understand what influences the behavior toward nature of different groups of people as defined by gender, class, age, and social status within communities. It is their task to understand the processes within different groups of people and the resource flows associated with particular social relationships. Production is the activity of combining factor inputs such as labor, capital, land (basic inputs), and/or raw materials (intermediate inputs) to produce goods and services, such as product, yield, and output. Reproduction is a production process that is constantly repeated and restored (Bryant 1992, 1997; Blaikie and Brookfield 1987; Peet and Watts 2004). Using multiple scales helps us to understand environmental conflicts—not just local pressures, but national and international demands that drive environmental change.

I draw on three topics, namely, property, value, and equity that political ecology have examined to help explain the shifts in mangrove management in Vietnam. Political ecologists who have looked at forests or resources in Southeast Asia are all interested in how people and the state contest control over forests, as well as how control is manifested. They are also interested in issues related to enclosures/property rights, markets/valuations, and exclusions/equity/differentiation (Peluso 1992; Bryant 1997; Vandergeest 2007; McElwee 2016). Resource use is shaped by the institutionalized patterns of interaction among individuals, households, extended kinship groups, and formal and informal structures of governance and control that arise within the communities and from larger political and economic institutions, such as the market. For those reasons, the patterns of resource utilization including

subsistence and commercial uses were investigated over subsequent periods of time. In addition, I address the influences of class, gender, and generation. In each of these periods, the balance of power between the individual households, local community governments, and extra-local governing institutions varied concerning different ways in which resources were used. My primary contribution is to extend this important political ecology literature on forests in Southeast Asia to mangroves specifically. Given how important mangroves are to the region, it is surprising that there is not any political ecology study of them. Stonich (1995) has done this for another part of the world; therefore, such a study for Southeast Asia is also needed. Vandergeest (2007) and Hall (2003, 2004) have written on mangroves in Southeast Asia, but not yet a book-length treatment of the topic that can examine changes over time from a political ecological perspective.

First, I examine the claims on mangroves by various actors over time as a form of enclosure movement. As many scholars point out, enclosure movements have been driven by different actors, such as the shrimp farming industry, rice production, the expansion of oil palm, and the government (Vandergeest et al. 1999; Latorre 2014; Friess et al. 2016). The state uses "force" to secure legitimate and sometimes illegitimate claims. There is also the use of armed or other kinds of violence by other social groups to guarantee their access to land. Also important is that much enclosure pits neighbor against neighbor, and this type of enclosure is "exclusion" (Hall et al. 2011). These movements have resulted in massive ecological damage with livelihoods disrupted and loss of mangroves and therefore limited access to mangroves by communities (ibid.). Scholars also show how dispossession from customary landholdings and the new contract farming system, based on registration of smallholder plots to "household heads," has eroded women's independent tenure and rendered them a class of plantation labor—this offers them the attractions of cash incomes but also locates them in new exploitative household and commodity relationships (White et al. 2012).

The issue of enclosure of land in Vietnam has been studied by Western scholars who have pointed out that enclosure movements have taken place in the form of state-led land allocations in the uplands, as well as in the bottom-up process of land claiming (Sikor et al. 2011; McElwee 2016). Land allocation carried out by the government in the uplands has resulted in extended government control over land, excluding upland people from valuable resources such as timber,[2] thus creating conflicts between upland people over scarce agricultural land and devolved forest, causing changes in farming practices and forest management (Sikor et al. 2011). Meanwhile, the process of land claiming by wealthier households enables these more powerful households to restrict access to land and economic benefits (McElwee 2016). Scholars have emphasized such market forces that facilitated inequality and environmental degradation, negatively impacting household entitlements.

Second, I note that mangroves have been valued and subjected to formal markets differently over time. Mangroves globally provide multiple benefits, from carbon

[2] For the similar argument elsewhere in Vietnam, see McElwee (2004).

storage and shoreline protection to food and energy for natural resource-dependent coastal communities. The rapid recent growth of population and changing political and economic conditions have been found to be key drivers, leading to land-use change and the declining health of mangroves (Quinn et al. 2017). Aquaculture is increasing around the world as shrimp became more valuable in world trade and mangrove forests are sacrificed for commercial shrimp farming (Martinez-Alier 2001). In Thailand, in the late 1960s, heavy exploitation and destruction of mangroves occurred due to the complex pressures from population growth, urban expansion, and economic development (Kunstadter et al. 1986). Markets are believed to be the driving force shaping the dynamics of land access and exclusion in Southeast Asia and across the world. Scholars point out that markets do not evolve spontaneously and are often a consequence of combined regulatory, force, and "legitimation" processes (Hall et al. 2011). The question arising then is who has title to the mangroves, i.e., who wins and who loses in this tragedy of enclosures. It is important to identify processes of commodification and individualization of access to land—"enclosure"—which reduce access to land by the poor (Woodhouse 2003). It is important to note that many people have suggested payments for environmental services (PES) or blue-carbon valuation as a solution to mangrove loss, and prior studies already cited suggested that any type of external valuation—either for market or nonmarket goods—creates the potential for exclusions and differentiation.

Third, I note that changes in access to land and the economic opportunities in mangroves have contributed to growing economic and social differentiation. Social differentiation scholars in post-socialist Vietnam explain that commercialization of agriculture alone does not lead to a uniform transition toward capitalist relationships and specific patterns and pathways for the differentiation that emerged from the socialist era (Ngo 1993; Luong and Unger 1998; Malarney 2002; Gammeltoft 2012; Sikor 2001a, b). Factors that cause differentiation include capital, labor, skill, and access to market centers and towns where the market economy has become more developed. Income differentials among regions are also believed to contribute to rural social differentiation and the processes of differentiation (Luong and Unger 1998). Since I am interested in the complexities of differentiation in agrarian communities, especially those in transition, I pay attention to the dynamics within the community, changing economic and political relationships among different economic and social groups in terms of farm and non-farm production and consumption, and changes in large-scale political economic structures and local patterns of control over productive resources and products. Social differentiation has emerged during each period of time in Vietnam with different drivers and different consequences.

Social differentiation and inequality relate not just to class but also to gender, and scholars note that it is important to explore how women and men have used and managed resources as they experienced environmental degradation and coped with regulations imposed from above on their use of these resources. Feminist political ecological perspectives point out that there is always an uneven distribution of resource access and control by gender, which is overlaid onto other social variables, such as class. Feminist political ecologists explore the gendered relationships of

ecologies, economies, and politics in communities (Rocheleau et al. 2013: 3–4). They treat gender as a critical variable in shaping resource access and control, interacting with class, caste, race, culture, and ethnicity (ibid.). Relying on the feminist political ecological perspective helps us to look deeply into Vietnam's patriarchal society, which situates women in the private sphere, conditions both men's and women's responsibilities, and also limits women's access to highly lucrative jobs. More specifically, this helps me elaborate my arguments on gendered resource use among different social groups of households and the gender division of labor, which are affected by the reform, and, in turn, shape new ideas about gender.

Many scholars are concerned with the environmental quality and social justice implications of shrimp mariculture development. Yet problems of social justice and environmental quality cannot be understood apart from the underlying social structure of the region (Stonich 1995). It is very common that higher-income households with more land initially were able to acquire ownership or access to most of the remaining land. This has exacerbated existing inequities that are greater for shrimp aquaculture than for other livelihoods such as fishing or farming (Abdullah et al. 2016). In Vietnam, the process of social differentiation among shrimp farming households in Vietnam's Mekong Delta is rooted in the imbalance resulting from two simultaneous processes, one of which is the weakening and loss of social and physical buffers. The other is the breakdown of informal safety nets such as kin and neighbor relationships, communal bonds, gender relations, and integrated families, with the loss of access to common property resources (Vu 2012). It is therefore important to foreground equity in any studies of mangroves given how many cases have revealed the social differentiation drive by markets and state actions.

1.5 Conservation Challenges as a Result of Pressures

The pressures just explained result in erosion of the norms on management, which is believed to have resulted in the degradation of mangrove resources. This is a very common process not only in Vietnam but also elsewhere in the world. Despite some variations, mangrove systems on various continents are facing similar drivers, pressures, states, and impacts that are being addressed through a range of similar responses. The changing ecological states of mangroves affect a similar range of ecosystem services in each of the countries in the service in the form of food (e.g., crabs, crustaceans, fish, etc.) and building materials (e.g., wood poles) and regulating services (such as storm protection and flood control) (Quinn et al. 2017).

More attention is now given to managing the remaining mangrove forests sustainably and to restoring those that have been degraded. Community-based mangrove management (CBMM) has been advocated by both academics and governing agencies as a viable alternative for sustainably managing mangrove forests (Datta et al. 2012). In addition, community-based management systems have survived for long periods through various crises (Berkes 2006). Higher numbers of CBMM initiatives were reported from South Asia and less from South America and Africa. The

major criteria of ecological sustainability were the identification of the causes of degradation at a site and the use of specific zonal replantings and species associations (Datta et al. 2012). It has been argued that transformation of potential uses of mangroves known by local communities into actual ones was found to be necessary to ensure economic sustainability. Restructuring of CBMM institutions by ensuring participation of subsistence-based users in decision making and resource sharing have been identified as prime determinants of institutional sustainability. However, the rational and sustainable management of the mangroves cannot be secured without a redefinition of entitlement rights that should take into account the needs of those whose livelihoods are intimately connected to the health of the ecosystem (Gammage et al. 2002).

The complexities of shrimp aquaculture create difficulties in management mainly because of the uncertainty brought by shrimp disease (Bush et al. 2010). The question arising is how to manage the mangrove forests successfully at the local level and how collective action takes place in such a context. Scholars point out that having a strong local commons institution is the key toward collective action (Galappaththi and Berkes 2015). Community associations (*samithi*) are the main actors of the drama of the commons in the Sri Lanka case, ensuring the effectiveness of management at the community level, facilitating sustainability in the long run. The key elements of the system that resolved the excludability and subtractability problems of commons by establishing boundary and membership rules and collective choice rules include clearly defined boundaries; collaboratively designed crop calendar; a bottom-up approach involving community associations; multilevel governance; and farmers-and-government collaborative structures. In the case of Thailand, the basis for the communities' success in managing the mangrove forests was that the resource was necessary to local livelihoods and was becoming scarce; the communities enjoyed autonomous decision making and had a high degree of social capital; the forest and user groups were well defined and monitored; effective leadership was present in the villages to apply sanctions and resolve conflicts; and there was substantial assistance from an external nongovernmental organization, which served as a bridge between the villages and the government (Sudtongkong and Webb 2008).

The problems of enclosure, markets, and social differentiation will make it hard to support community-based mangrove management despite growing funding for mangrove reforestation. This explains why mangrove cover has been much reduced, with the condition of mangroves declining all over the world, so Vietnam is not exceptional. Conversion to private or state property does not necessarily enhance sustainability because both can be seen as a form of enclosure. Although CBMM has been promoted globally and nationally, many mangrove replanting programs have not been successful, the reason being that those programs have rarely addressed the enclosure, markets, and social differentiation pressures on mangrove systems.

The concept of ecosystem services (ES), described by the Millennium Ecosystem Assessment as the "benefits people obtain from ecosystems," has rapidly become an important approach to understanding and prioritizing the natural world in environmental decision making. There are three categories of ecosystem services.

Provisioning services are the material or energy outputs from ecosystems, such as food, water, timber, and fiber. *Regulation and maintenance services* provide soil formation and composition, water conditions, atmospheric composition and climate regulation, habitats for wildlife, local climate and air quality, carbon sequestration and storage, moderation of extreme events, wastewater treatment, erosion prevention and maintenance of soil fertility, pollination, and biological control. Finally, *cultural services* provide landscapes; tourism; human health; aesthetic appreciation and inspiration for culture, art, and design; and recreation and mental and physical health (IPBES 2019). Valuation means the act of deciding how much money something might be sold for or the amount of money decided on. In Southeast Asia, attention to ES and policies based on them have been strongly promoted by states and donors as a solution to rapid declines in biodiversity and conflicts over natural resources. Given prior histories of external valuations leading to internal differentiation, we should use caution in embracing PES alone.

1.6 The Study Area

Giao Lạc[3] commune is a coastal community located in Giao Thủy district, Nam Định province; it is average in size and representative of the communes in the Red River Delta that have been most dependent on mangrove resources. It has a diversity of mangrove socioeconomic systems, including newly planted mangrove forests, shrimp ponds, clam farming sites, and an open intertidal area for villagers to collect marine products. Giao Lạc is a useful site in which to study changes in modes of access to, and control over, resources, as well as changes in patterns of resource use.

Giao Lạc has a long and rich history, and the oldest surviving elders of Giao Lạc still recall what occurred during the colonial era. Elderly individuals within the village have experienced life under three regimes: the French colonial government, the Japanese occupation, and independent Vietnam. They experienced the great famine of 1945, the war of liberation, the postindependence land reforms, the struggle in the South to unify the country and the American bombing of the North, the post-1975 period of intensive collectivization, and, more recently, the economic reform or *Đổi mới*.

Giao Lạc's population during the period (2000–2001) studied by the author of this book (Hue 2004a, b) was about 9000, divided into 2227 households. Sixty-nine percent were Catholics, with the remaining being Buddhist. Giao Lạc is currently primarily an agricultural community farming rice,[4] but other livelihoods, including

[3] When the commune was first established, it was not named Giao Lạc. The name Giao Lạc came much later—in 1956. It was then called Thiện Hương, and it belonged to Lạc Thiện Canton, which contained the present Giao Thiện, Giao An, and Giao Lạc communes. Therefore, during the period between 1843 and 1951, the commune was called Thiện Hương instead of Giao Lạc.

[4] On average, the agricultural production was 5–6 tons of paddy/ha in 2000–2001. Per capita rice production was 39–44 kg of milled rice/month.

those based on mangroves, remain important. The total area of Giao Lạc is 744 ha, of which 535 ha is agricultural land (see Fig. 1.1). The commune is presently accessible by roads and waterways. The commune extends south to the central dike, beyond which are an intertidal area and the East Sea. The dike is almost 3 km long. The intertidal area is more than 600 ha, of which some 400 ha has been planted with the mangrove species *Kandelia candel*, *Sonneratia caseolaris*, and *Rhizophora*

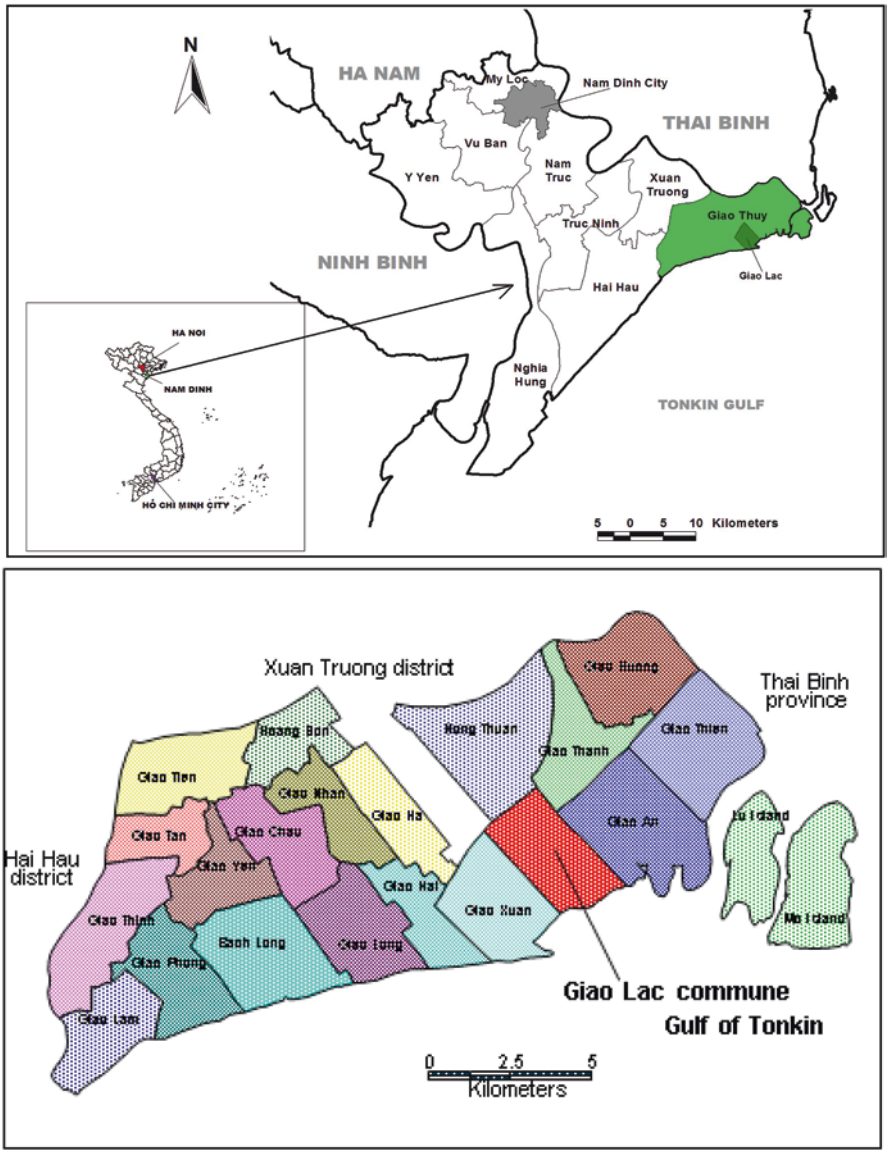


Fig. 1.1 Location of Giao Lạc commune

apiculata. In addition, there are five shrimp ponds. Four of the five ponds and all of the intertidal area belong to the district. The commune is mandated by the district to administer the ponds and the mudflats.

1.7 Structure of the Book

Chapter 2 traces the history of mangrove management and village resource use since the commune was established in the precolonial era. I investigate modes of access to, and control over, resources, the roots of social differentiation and resources, and rights that have changed in the commune from precolonial rule by the Nguyễn dynasty to French colonialism from the late 1800s that lasted until 1945. The chapter examines how control over resources has been enforced in different eras and how villagers have utilized resources during each period. I also investigate what forms of resistance villagers expressed toward changing policies, as well as the patterns of social differentiation that emerged during each period.

Chapter 3 focuses on the transformations the commune underwent during the era of socialist and cooperative management from 1956 to 1988, in particular the villagers' patterns of resource access and use and socioeconomic differentiation. It examines how control over resources was enforced under new state political and institutional arrangements and how men and women utilized resources during this period. The chapter also investigates what forms of resistance villagers expressed toward changing policies.

Chapter 4 examines changes in social relations, the rapid changes in local land-use systems, and ownership in response to national economic reforms and agricultural policies that were implemented during the late 1980s and 1990s in Giao Lạc. During this *Đổi mới* period, new forms of enclosure emerged, including shrimp aquaculture for export, clam farming, and mangrove replantation projects. I discuss how fragile local rights over the intertidal resource area are deteriorating with enclosure, unless local people actively defend and consolidate such rights.

Chapter 5 explores how the market combined with enclosures has led to new social differentiation patterns that have affected access to and control over mangrove resources, through a discussion of the way in which different classes of people use coastal resources in the commune. With the government's cessation of direct intervention in the commune's economic activities, households now enjoy a high level of autonomy since the old central planning model of socialism was abandoned. I argue, however, that although market liberalization has led to greater diversification of income sources, it has also resulted in social differentiation. I then discuss in depth the diversification of farming households into sources of nonagricultural incomes, which have resulted in class inequality, despite the fact that land and property remain rather equally distributed. The chapter identifies the mechanisms and the patterns of differentiation and whether these factors are the same or different from the ones that caused differentiation during the collective era. It analyzes both the changing bases and mechanisms of differentiation, as well as the changing

outcomes of differentiation in post-collective Vietnam due to the changes in macro-economic structure.

Chapter 6 revisits the author's arguments and synthesizes the factors that have contributed to the varying effects of national economic reforms on various economic and social groups of households in rural Vietnam's coastal regions. The book concludes with the argument that only when close attention is paid to local contexts and histories can local-level studies contribute to a better understanding of the causes and consequences of environmental degradation and agrarian change as pointed out by political ecologists. The author notes that understanding the causes of mangrove degradation can help contribute to the design of incentives and appropriate institutions for sustainable mangrove management at the local level. Only when mangrove resources are managed sustainably at the local level will coastlines be protected, erosion limited, mainland expanded, saline intrusion restricted, and the dikes, rice fields, and coastal inhabitants be defended from damage caused by monsoon, typhoons, and sea-level rise. Only when mangrove forests are managed in a sustainable manner will the poor and the most adversely affected, including female-headed households, women, and girls, have access to the mangrove and mangrove-related resources as a source of supplementary income. And as a result, social equity, growth of rural incomes, poverty reduction, and environmental protection can all take root.

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Chapter 2
Early History of Mangrove Management in Giao Lạc

Abstract This chapter traces the history of mangrove management and the use of village resource since Giao Lạc was established in the precolonial era. The chapter investigates modes of access and control over resources. The roots of social differentiation and resource use and rights changed in the commune from those of precolonial rule by the Nguyễn dynasty to those of French colonialism, which existed from the late 1800s until 1954. The control over the use of resources, the forms of resistance villagers expressed toward changing policies, and the patterns of social differentiation that emerged during each period are also investigated.

Keywords Control · Colonialism · Resources · Rights · Resistance

2.1 Introduction

This chapter provides a history of the commune we now know as Giao Lạc, which was called Thiện Hương between 1843 and 1951. The chapter investigates how modes of access to, and control over, resources changed in the commune during the precolonial and the French colonial era, ending with the establishment and recognition of the Socialist Republic of Vietnam in 1954. These changes in resource rights also contributed to rising social differentiation throughout this period. The chapter examines how control over resources was enforced in the different eras, how villagers utilized resources, and what forms of resistance to enclosures and controls were practiced. The chapter also investigates the impacts of shifting market demands on villagers' livelihoods, as well as on mangrove management.

The purpose of this chapter is to provide the necessary historical context for the chapters that follow by explaining the historical processes that gave rise to specific aspects of social structure and modes of resource control and use. Thiện Hương was first settled in 1843, and the first section of the chapter begins with discussions regarding the establishment of villages in the precolonial period. The second section explores how the villagers utilized resources in the commune during the French

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colonial period from 1884 to 1945. The third section investigates the villagers' livelihood activities and changes in patterns of resource use during the war of resistance period from 1945 to 1954 and concludes with the implications of this history for the transition to land reform, socialism, and collective agriculture that began under the new Democratic Republic of Vietnam (North Vietnam) after 1954.

2.2 Land and Society in Precolonial Vietnam

One of the main concerns of the imperial monarchies of Vietnam was the control of land, rather than people, in contrast with other contemporary Southeast Asian dynasties such as Siam. The Vietnamese population, centered along the Red River, contained too many people and not enough land. Therefore, reclamation and expansion of villages and rice fields were national policies of successive regimes, from the Trần (thirteenth–fourteenth century), Lê (fifteenth century), through the Nguyễn (nineteenth century) dynasties (Le 1997: 55–59). Reclamation was, on one hand, a means to expand the village and, on the other hand, a means to develop the nation.

The expansion of the Vietnamese imperial dominion from the Red River was carried out in two directions: one encroaching toward the south and expanding toward the ocean (Truong 1994: 2; Phan 1982). The process entailed giving land grants to loyal feudal lords to organize control of vast but remote areas. The lords would mobilize peasants to move to the new lands and give them property rights in return for working and clearing fields. In return for the large estate grants, the court got the lords' continued loyalty, and sometimes their tax revenues if the lands were productive. The residents who were moved into the fields also got land and a chance to make a living, which the court hoped they would be appropriately grateful for. As one example, in the fifteenth century, Nguyễn Xí, a loyal official of King Lê Lợi, was granted parcels in what is now Nghệ An; Xí was given permission to use Ming Chinese war prisoners and Chăm "barbarians" to toil in his allocated fields to bring them into production (Dam 1962: 9).

In addition to expanding the borders of the empire, the imperial court found that giving newly developed land to rebellious villages could be used to staunch new protests, particularly during the unrest of the late eighteenth century and the early nineteenth century when the Nguyễn dynasty was consolidating their control. This was particularly important after the Tây Sơn rebellion of 1788 and took on new urgency again in the 1820s with the beginnings of a new rebellion, the Phan Bá Vành rebellion, in the northern delta areas. The imperial court decided to open up lands in the rebel areas, and "they were to be settled by needy peasants who would otherwise join the bandits" (Shiraishi 1984: 390). The task was undertaken by the famous mandarin Nguyễn Công Trứ,[1] when he was Commissioner of Land

[1] Nguyễn Công Trứ (1778–1858) was a mandarin who was in charge of land reclamation on behalf of the Nguyễn dynasty in the early nineteenth century.

Administration (*đinh điền sứ*) for Nam Định. He proposed to attack the rebellion in three ways: enforcing regulations against banditry, encouraging good administration by local mandarins, and opening up new lands for settlement (Shiraishi 1984; 390). He eventually developed 18,000 *mẫu*[2] of new agricultural lands to settle 2350 rebel men, and the Phan Bá Vành rebellion quickly died out.

By the time the Nguyễn dynasty consolidated power in the early nineteenth century, land clearing continued to be directed at the swampy and forested areas to convert them to rice agriculture. Any land not belonging to a village, or to an individual in a village, was considered to belong to the emperor; this included forests and uncultivated lands (Mathieu 1909). The work of clearing these wetlands and forests was hard, and it was not always easy to get people to move to these tough environments. According to a decree in 1828 issued by Emperor Minh Mạng, half of any reclaimed land belonged to those who reclaimed it and the other half belonged to the village where the land was reclaimed (Ho 1958; Vu 1964). The emperor promised that, for every five people a landlord mobilized to clear a new area, the crown would give one buffalo (*trâu*), one harrow (*bừa*), one plow (*cày*), one hoe (*thuổng*), one spade (*cuốc*), and one sickle (*liềm*). In addition, the workers would be supplied with 6 months' worth of food and enough money to build a house (*Thuc Luc* Vol. 51 in Dam 1962, p. 8). The *chiêu mộ*[3] who initiated the work would have the right to receive more land and fields than those who were not part of this founding group.

Pierre Gourou, in his 1936 book on the Tonkin Delta, relates the process of converting swamps and mangroves into cultivable land and the reasons for the process: "Unlike the lands available in the mountainous regions, these marine beds were aggressively coveted and occupied as quickly as possible, or if the land was not yet reclaimed well, sometimes too soon. The reason is that these lands border on overpopulated regions, known to be fertile, and the technique of bringing them under cultivation is familiar to the inhabitants of the coastal region. The occupation of a marine bed requires the construction of dikes on both the ocean and the riversides, with the digging of drainage canals which will also serve to admit freshwater from the rivers upstream to irrigate the lands and combat saltwater infiltration. This last aspect is a very important point: It is difficult to bring a marine bed under cultivation because, even if its elevation is sufficiently high, there are problems if enough fresh river water is not available to continue the warping and take the salt out of the soil. It was the lack of fresh river water that in part explains the slowness of the occupation of the marine beds in the province of Kiến An and above all in the province of Quảng Yên where vast expanses, which at first sight would seem easy to develop,

[2] One *mẫu* is equivalent to 3600 m^2.

[3] The *chiêu mộ* were those who recruited people to participate in land reclamation. There were also *nguyên mộ*, *thứ mộ*, and *tân mộ*. The *nguyên mộ* were either the *chiêu mộ*'s relatives or neighbors in the old village. The *nguyên mộ* were the first ones present in the new village (Dao and Nguyen 1990). *Thứ mộ* and *tân mộ* were poor and many of whom had participated in the Phan Bá Vành uprising (1821–1827). The *thứ mộ* had settled in the village before the *tân mộ* (Dao and Nguyen 1990).

are left to mangrove trees. It is of primary importance to not dike a marine bed too soon since premature development runs the risk of becoming poorly warped land which will be dried with difficulty."

Gourou goes on to relate how the districts of Tiền Hải (Thái Bình) and of Kim Sơn (Ninh Bình) were almost entirely created from reclamation through the guidance of Nguyễn Công Trứ, which at the time of Gourou's writing included over 20,000 new ha supporting more than 115,000 inhabitants.

The creation of new villages on these newly cleared lands brought new people under imperial rule and a centralized Confucian bureaucracy, which recorded administrative details of land tenure in imperial property registers (or *địa bạ*). The village was held responsible for payment and collection of taxes on lands under their control (Quang Truong 1987). Public lands were managed by the villages and revenues from them were used for village affairs. These public lands on average comprised between 5 and 15% of villages' total land area, used for raising money for taxes, feasts, and celebrations, or could be parcelled out for use by poor villagers and those without sufficient wet rice land of their own. These public lands were reallocated every 3 years, and those who were *dân ngoại tịch* (outsiders) were not allowed to receive land from the village (Phan 1982; Truong 1994; Dao and Nguyen 1990). Reclaimed land in the village was not subject to any tax for the first 2 or 3 years (Truong 1994: 8). Later, when land was taxed, this public land was taxed at three times the rate as private land (Vu 1964: 48). These common lands were mostly in delta areas, which some have attributed as a consequence of the need to work together to tap irrigation sources and build dikes (Cao 1983). Jamieson argues that "Village land was reallocated every 3 years, providing subsistence for the very poor and reimbursement to those who rendered service to the village. Some land was rented to other villagers at a substantial fee, generating revenue. This land tenure system supported village solidarity. No one outside the village either owned or worked village land. Villagers might quarrel among themselves, but they stuck together against outsiders. The village was corporately responsible for payment of taxes to the higher authority, to provide military conscripts and corvée[4] labor. So long as it met its obligations, the village was left alone. Outsiders, even the central government, dealt with the village, not with individual members. Only through the village could one be a fully participating member of society" (Jamieson 1995: 29–30). Overall, this land tenure system served to strengthen bonds with villages and within individual households.

[4] Corvée means labor exacted in lieu of taxes by public authorities, especially for highway construction or repair.

2.2.1 *Creating a New Village: Establishment of Thiện Hương*

Five centuries ago, the majority of Giao Thủy's villages were located among swamps covered with reeds and seagrasses adjacent to the mangroves along the coast. Thiện Hương itself was established much later, approximately 150 years ago during the restored Nguyễn dynasty. Starting in the 1840s, Emperor Thiệu Trị moved people to the area to cultivate the swamp and establish farms through reclamation programs, encouraging any rich man who could recruit poor registered inhabitants to participate in creating farms (Ho 1958). At the time of founding, Thiện Hương belonged to Lạc Thiện Canton (*tổng*), Giao Thủy district (*huyện*), Xuân Trường prefecture (*phủ*), and Nam Định province (*tỉnh*). A *tổng* was an administrative unit composed of two to five villages placed under the authority of a chief and a sub-chief (Nguyen The Anh 2002). The duties of these people to the central government, via the head of the district, were to collect taxes from their area and draft military recruits (Kleinen 1999a, b: 28).

The backgrounds of those who first moved to Thiện Hương varied. Some were rich, some were officials, and others were the poor who had to run away from their native villages to avoid heavy taxes, hoping to find a better life in Thiện Hương.[5] Those who participated in ocean reclamation in Thiện Hương came from many old villages, which were dozens of kilometers distant from Thiện Hương in Bùi Chu, Phú Nhai, Quần Cống, Sa Châu, Lục Thủy, Tương Nam, Bách Tính, and Xứ Mèn (Tran 2000: 9). As in Nguyễn Công Trứ's time, they were provided cash to construct houses and to buy draft animals and tools. In addition, they were supplied with rice and cash and, after reclamation, they were provided land (Truong 1994).

As in other newly established villages, reclaimed land in Thiện Hương was divided into residential land and rice fields. Residential units were higher in elevation and separated from the rice fields by artificial canals, which served as a means of irrigation as well as transportation. In addition, they also helped prevent and limit land conflicts between farms or villages (Phan 1982: 27). The residential land was initially located close to villages that had already been established to have access to freshwater (ibid.). Houses in Thiện Hương were built facing southeast (Phan et al. 1997: 36), with this custom continuing today.

No written account is available on the average landholdings in Thiện Hương after reclamation, but in Hoành Thu Canton, which is situated in Giao Thủy district about 5 km away from Thiện Hương, 30% of land after reclamation was public land. For every 100 *mẫu* of reclaimed land, 30 *mẫu* was considered public land and 70 *mẫu* rice fields (Phan 1982). Land comprised four types: residential land, home gardens, and ponds; cemeteries and grasslands for cattle and water buffalo; Buddhist temples and communal houses; and seedling plantations (*vườm ươm—public land*). In Hoành Thu, each village (*ấp*) had 16 registered inhabitants. On average, each registered inhabitant was given two *mẫu* of private land, which included land for house construction and rice fields for cultivation. However, the average landholding

[5] Interviews with Mr. Đào who was 75 years of age in Giao Lạc.

varied from one village to another, depending on the reclaimed landholdings of the village (ibid.).

The land in Thiện Hương is composed of alluvial soil that was carried down from the Red River and was continuously deposited into the East Sea. Two rivers provide the commune with irrigation water for rice fields, and canals were constructed to facilitate delivery of this freshwater. Bridges were also established to serve as means of irrigation and transportation. In the process of reclaiming land from the ocean's tides, the villagers constructed sea dikes and planted mangroves outside the dikes to protect them. After a new dike had been constructed, villagers would cut the mangroves inside the dike and then plant rushes in the fields, which could be used as thatch for roofs. When rushes did not grow well, they converted the rush fields into grazing lands, which they later converted into rice fields. This cycle of changing land-use types over time is called *đóng dóc*. Sluice gates, which were first made of bamboo and later of wood, were constructed to bring in freshwater from the nearby river. The rainwater and freshwater helped reduce acidity and salinity so that rice could eventually grow. Such a process might take 10 years.[6] Gourou noted that in the prefecture of Xuân Trường, in which Thiện Hương was located, more than 4000 ha of land had been reclaimed from wetlands (Gourou 1936).

2.2.2 *Social Structure in the New Village—Duplication of the Old Village*

The strengthening of traditional relationships between relatives and neighbors promoted strong solidarity in the village, which helped the villagers to overcome difficulties when they first settled. This solidarity was a determining factor contributing to success in newly established villages since it helped villagers develop roots in their new location. It brought people together to build dikes, dig canals for irrigation and transportation, convert wetlands into rice fields, construct houses, and help each other when someone was ill. Social relationships in the new village were formed based on those in the old villages (Nguyen et al. 1994: 36), but they brought a fresh perspective to the new village: bonds between not only relatives but also new ones between new neighbors, including with those of different religions. In the new village, the structure of the village was an "open" one, consisting of many lineages. It was very common that those who had come from the same village and the same family lived together in the same residential unit (ibid.) but the settlers also came

[6] According to the history of the Trần family (a family that settled Thiện Hương and established farms in the village in 1860, which still resides in Giao Lạc), wetland reclamation occurred between 1860 and 1905, as people from Thọ Nghiệp and Xuân Trường settled Thiện Hương. Two families named Phạm and Trần arrived and established a farm called Đệ Nhị Ấp Nghiệp that now comprises Villages 8, 9, 10, and 11 (Đệ Nhị means "second"). This farm was called the second because the first farm, called Đệ Nhất Ấp Nghiệp (Đệ Nhất meaning the first), had been established by the Tran family in Giao Thiện, which is presently Giao Lạc's neighboring commune.

from many old villages, different lineages, and from different walks of life. They joined together, worked together, and fought together against natural obstacles. It was these newly arisen relationships that helped them go beyond the narrow-minded lifestyle within the confines of the old villages (Truong 1994: 40). The new land ownership and open structure that promoted a small peasant economy, handicrafts, and trade created favorable conditions for the exchange of culture and trade between the new villages and also between the new and the old villages (Nguyen et al. 1994).

Like other newly established villages in the Red River Delta, only years after establishment did an organizational structure form in Thiện Hương, which duplicated the hierarchical model of social status from the old village. The system was constructed by considering age and kinship and sociopolitical values, such as education and social position (Nguyen 1987: 78; Kleinen 1999a, b: 5). For example, when a *giáp* (age-group organization) and *ấp* (village) were established, special attention was paid to village traditions (Phan 1982: 27). At the commune level (*xã*), there were three principal administration institutions. These included the *dân hàng xã*, the *hội đồng kỳ mục*, and the *lý dịch*. *Hội đồng kỳ mục* was the political self-government of the village council of Vietnam before the revolution of August 1945. The council of notables was elected by the *dân hàng xã*. Members of the council were the ones selected from among the oldest or most prestigious people or those with the highest academic degree. Each notable was assigned a specific field of activity in the village, but all work was discussed and decided collectively by the council through council meetings. The council was completely independent from the higher state government. *Lý dịch* were members of the communal administration. The *dân hàng xã* (communal population) consisted of all male inhabitants 18–60 years of age with a minimum height, according to the village standard for adult males, who were eligible to receive land. These registered adult males (*đinh*) were supposed to pay taxes on the land they cultivated and were subject to corvée and military conscription (Nguyen 1978–1979: 66; Nguyen 1987: 84). In addition, these male villagers could take the national examination to become a member of the royal bureaucracy. However, many males of sufficient age to receive land were not provided any, but were still forced to fulfill corvée and military conscription, as well as pay taxes. It should be noted that women and children were not registered as *đinh*. They were not allocated land and were consequently dependent on the registered men in the family (Nguyen 1978a, b: 122).

Hội đồng kỳ mục was the political self-government of the village council of Vietnam elected by the *dân hàng xã* and consisted of the oldest or most prestigious people or those with the highest degree. The council was completely independent from the higher state government. The *lý dịch* was the administrative institution set up by the state, while the *hội đồng kỳ mục* was the product of the village community, and considered a tool of self-governance of the village (Phan 2002: 467). In summary, during the traditional era, both state law and the commune's *hương ước* governed the village, although sometimes, "The laws of the emperor surrendered to the customs of the village."

2.2.3 Changes in Land Distribution and Tax Burden

After several decades of settlement, new changes at the national level had a strong effect on local social and economic relations. Wasteland was not considered a commodity and therefore was not for sale. In 1872 Emperor Tự Đức issued a decree that allowed villages to sell their wastelands (Ho 1958: 42). In practice, this decree primarily benefited landlords and village officials by encouraging them to appropriate public land for private use. The most fertile public land fell into the hands of landlords and village officials, who were a small percentage of the population in the village (ibid.). This landlord class then became the economic master of the rural society until the modern land reform period (1953–1956).

In the Red River Delta, landlords did not engage in labor but lived and enriched themselves by exploiting farmers in the form of land rent, loan interest, and laborer hiring. *Land rent was a form of exploitation typical of feudalism*; *loan interest was* also a very popular form of exploitation. The most common form of land rent was in the form of presents offered to the landlords, but a few landlords collected money. In addition to main land rent, farmers also had to pay secondary land rent to the landlord, in the form of holiday offerings and unpaid service holidays, such as the Lunar New Year and the death anniversary of the landlord. Land rent paid to the landlord usually accounted for at least half of the crop yields, while the tenant kept the remainder but incurred all production costs, not to mention other donations to the landlord (Nguyen 1978a, b).

Landlords gave loans to farmers in the form of paddy cash; buying young rice was also a popular form of loan with higher interest. The interest was commonly 100%, and if not paid on time, the house and land would be confiscated. Labor exploitation was also a common form of exploitation of small landowners and some medium landlords. Labor exploitation had several types: annual, monthly, seasonal, and daily. Strong laborers would work for the whole year. The landlords also employed women and children to keep the cattle, water the fields, cut grass, and carry manure during the entire year. The relationship between the peasant and the landlord was not only the relationship between the labor buyer and the seller, but in many cases, it was also a dependent relationship between the landlord and the tenant, or the lender and the debtor. In the Red River Delta, the rich landlords owned the largest areas, the middle and small landlords owned average areas, and the peasants owned small areas (Nguyen 1978a, b).

The entire population of Thiện Hương at the time of the Emperor's decree was several hundred people (Phan 2002: 454). The villagers making up the majority of the population were allocated only small pieces of remote, infertile rice fields (Ho 1958: 42–43). Once the commune had been established, the *chiêu mộ* received much more land than those who were not part of the initial settlement group, resulting in differentiation between villagers. There was also a middle peasant class who earned their living by working their own private land. They sometimes also rented out their land or hired laborers when needed (Nguyen 1978–1979: 20–21). The relationship between the rich and the poor primarily became a relationship of

landlord and tenant, the main socioeconomic structure determining precolonial Vietnamese society in northern Vietnam. The landlords and the rich made their living from renting their land out and exploiting the labor of those they hired, while the poorest peasants had to work all year long for landlords. The landlords not only gained surplus rice but also earned a great deal through usury at the expense of the poor peasants (Nguyen 1978–1979). Officials severely exploited the villagers since landlords always cultivated the best rice fields, while peasants worked the worst. To get even for the unequal landholdings, sharecroppers sometimes did quick and careless jobs on the landlords' fields, harvesting the best rice and leaving the worst for the landlord. Some sharecroppers borrowed the landlord's rice for seeding and never returned the rice to the landlords. Some were unwilling to deliver the full amount of rent in paddy to the landlords, and there were also cases where sharecroppers ran away after they had harvested the rice. Clearly, the case of Thiện Hương showed that land was not distributed in an equal manner but according to a social hierarchy, even though in principle land was redistributed every 3 years to eligible villagers.

Although the poorest villagers worked infertile land, they still had to pay heavy taxes, calculated by taking the tax on the fertile land and the tax on the infertile land worked by peasants and dividing by two. That meant that poor peasants had to pay a greatly disproportionate share of the taxes. During the Nguyễn dynasty, taxes were collected in the form of paddy and in corvée labor, valued at about 0.5 piaster (Popkin 1979: 147; Ngo 1991: 63). Many villagers who did not know how to read and write had to ask notables to sell their land for them so that they would have money to pay the taxes.

In Thiện Hương, in addition to public land, the village also set aside land for Buddhist temples, Catholic churches, the cemetery, and the communal house (*đình*).[7] The *lý trưởng*[8] and the *lý dịch* were paid salaries by granting land to them. As the *lý trưởng* was already allocated public land, he was then granted an additional *mẫu* of land. The *phó lý*[9] was given four *sào*.[10] It is important to note that those who reached the age of 60 were supposed to give back to the village the land they had been allocated so that it could be reallocated. The village also allocated land to elders (*lão*) and widows without children, but there was a difference between the two groups. Elders were allocated between two-thirds and a full share of a *đinh*'s landholding, with widows receiving only one-third of the landholding of a *đinh*.

[7] The *đình* was the place where power and hierarchical order were most clearly shown. In principle, the *đình* had both secular and religious functions (Kleinen 1999a, b: 5) as the place where the village guardian spirit was worshiped.

[8] The *lý trưởng* was the village's headman.

[9] The *phó lý* was the deputy village headman.

[10] One *sào* is equivalent to 360 m^2.

2.2.4 Management of Mangroves in the Precolonial Period

No written account is available of the total area of mangroves in Thiện Hương in the precolonial period, and no one in Giao Lạc remembers how large their area of mangroves was. It was said after the construction of a new dike mangroves were always planted outside the dike to protect it. In other words, the mangroves played a very important role in the process of encroaching upon the sea which constituted national policies that aimed to reclaim and expand villages and rice fields from the Trần (thirteenth–fourteenth century), Lê (fifteenth century), through the Nguyễn (nineteenth century) dynasties (Le 1997: 55–59).

2.2.5 Social Differentiation in the Precolonial Village

The precolonial period was characterized by a class-structured, kinship-centered, and male-oriented hierarchy. This class- and gender-based hierarchical framework dominated all aspects, from the household to the communal levels. Only males aged 18 and above were registered and allocated land, with women and children not registered or granted any land. Furthermore, women and girls were excluded from all governing institutions in the village, including the *giáp*. Like the *dân ngoại tịch* (outsiders who were not registered), they did not have any right to participate in any discussion of the village affairs, to vote, or to attend the village's feasts. As a result, they were dependent on the registered male members of the family, despite their significant labor contributions.

Some have contended that precolonial villages in Vietnam were harmonious and egalitarian before the French came and that the French changed the political structure within the village and therefore changed the character of the village community. Others even idealize the traditional village and praise so-called village democracy (Papin and Tessier 2002: 20). However, in Thiện Hương, the precolonial village was not harmonious or welfare oriented. In fact, it was a stratified community, with many forms of exploitation. The *lý dịch* and landlords benefited unfairly from the labor of villagers, and the landlords did not till their own land, but used a system of sharecropping (Scott 1976). Real political power was in the hands of educated males and the land-based village elite (Vu 1978: 50; Nguyen The Anh 1971: 68; Kleinen 1999a, b). While some scholars like Popkin have suggested that individual villagers' interests shaped and determined the specific nature of the village (Popkin 1979: 132), it is quite apparent in Thiện Hương, where individual villagers were mostly poor, that they were exploited and powerless, and these poor and powerless people were not in a position to shape the nature of the village.

2.3 The French Colonial Era: Impacts on Land and Society

In 1858, the French began their conquest of Vietnam, and Hanoi was occupied for the first time in 1873 (Fall 1967: 24–25). The French colonial regime expanded control over the countryside, including Nam Định, and consequently, Thiện Hương was occupied. The court surrendered to the French and signed an agreement on June 6, 1884, with French administration acknowledged (Fall 1967: 24; Chaliand 1969: 28). By the 1930s, the French had divided Xuân Trường prefecture into two districts, Xuân Trường and Giao Thủy, to better control the area, with Thiện Hương assigned to Giao Thủy district.

In 1921, the French decided to replace the *hội đồng kỳ mục* with the lineage representative council (*hội đồng tộc biểu*) throughout Tonkin (Phan 2002: 468). This change was intended to intervene in internal affairs at the village level. (In Thiện Hương, a *hội đồng kỳ mục* was replaced by the *hội đồng tộc biểu* in 1923.) The *hội đồng tộc biểu* included lineage representatives in the village. Each lineage depending on its size (larger lineages could select more representatives) selected its representatives. The representatives met and elected the president and vice-president (respectively, *chánh hương hội* and *phó hương hội*), secretary, treasurer, and village guard chief, among others on the council. The *hội đồng tộc biểu* was responsible for head taxes with the *lý trưởng* and *phó lý* responsible for supervising administration of the village's daily affairs as in the previous time. The members of the council were exempt from corvée and from the head tax. (Later, in 1942, the French abandoned the *hội đồng tộc biểu* and replaced it with a council of notables, and with these new rules, power was even more concentrated in the hands of the elites.)

2.3.1 Changes in Land Tenure Under French Colonialism

Under the French administration, new systems of land tenure were introduced, as well as the consolidation of large landholdings for plantations under wealthy French and Vietnamese landowners (known as *điền chủ*). The new colonial administration focused on establishing rules for property ownership, taking it out of the social realm of village affairs, and passing it firmly to individuals. As Bassford notes of the transition, "Vietnamese property rights were familial and were embodied in village custom. Customs were unwritten and uncodified, yet were specific and generally acknowledged. Rights were protected by the importance of custom in the social fabric. Conflict resolution was the domain of the Confucian scholar-bureaucrat and council of elders. By contrast, French property rights were personal and clearly spelled out in the body of civil law. The law was universal and standardized. Justice was rendered by a stranger who interpreted the law to ensure that the individual's rights were preserved" (Bassford 1987: 89). The French also upset the social order of villages by making land ownership a paramount key to citizenship; Woodside notes: "[I]n precolonial days, elite status in the Vietnamese village had depended

nominally upon multiple noneconomic criteria (such as age and examination system degrees) even if landownership had remained a primary qualification behind the facade of Confucian civic ideology. Now, with the disappearance of the examination system, and with the introduction in 1904 of this legal criterion that landowning by itself was sufficient to open the door to membership on the village councils, French administrative fiat performed a work of 'terrible simplification' which made the economic inequities upon which the village political order rested, much more obvious" (Woodside 1987).

The promotion of a land market and the individualization of property rights were major goals of the French administration, who saw this as a way to regulate land prices and land use. Formerly, however, land sales to outsiders were almost unheard of because villages, not individuals, controlled who could live and use land within their boundaries. The French administered land markets through the introduction of formal individual land titles, which let people mortgage their land and participate fully in the new French capitalist system. The *địa bộ*, originally configured more as tax rolls than land registers, were taken as evidence of land ownership and used as the basis of land judgments under the new private property system (Bassford 1987: 90–92). However, many poor peasants could not afford to purchase land in this system. For example, "In 1929, when prices were high, the highest possible net return from land exploited by share-cropping did not exceed 800 francs a hectare, yet in some villages the price of land reached 27,000 francs per hectare. We may consider that in Tonkin in 1935 the normal price of a good piece of land varied between 2,800 and 8,400 francs a hectare. Such prices may not seem very high to us: but we must remember that they are current in a country where the income of a family of small proprietors hardly exceeds 2,500 francs a year" (Gourou 1945: 292).

Usury and high rents plagued farmers during this period. Farmers often cultivated their own land but were forced to take out high-interest loans from landlords. Over the years, if they were unable to repay the loans and interest and their land was mortgaged to landlords, land reclaimed by poor farmers was appropriated by local authorities and given to wealthy French and Vietnamese collaborators: "[O]wnership of land (mostly very petty anyway) often existed for a short time and only in name. As soon as the tenant could not pay his debts, he had no choice but to sell his small plot. For many a peasant, the tragedy did not end with this. Many had to offer their buffalo, or even their children to the creditors, thus ending their life in 'Bước đường cùng' (the dead end), as Nguyễn Công Hoan, a realist writer of the early 20th century, described the common destiny of the peasant" (Truong 1987: 28).

Additionally, any land considered "unused" was often granted free of charge to any Frenchman in return for a promise to put the land under cultivation and pay land taxes; this "unused" land all too often included village common lands. The French claimed that "according to imperial law, unutilized land became public or communal land. This meant that as a successor to the emperor, they had the right to alienate such 'state land' as they saw fit, thus using the tradition to justify their innovation, the concessions policy" (White 1991: 147). By 1930, the area of concessions in northern Vietnam amounted to 104,000 ha. In addition to the privatization of

common lands as concessions, many village public lands were alienated by villages to pay the heavy tax loads that the French regime imposed upon them.

2.3.2 *Land Ownership and Taxes in Thiện Hương*

Many of these transformative changes came to Thiện Hương as well. In other words, the French transformed the landlord situation in Thiện Hương. Due to exploitation and colonial taxation, villagers' lives became more difficult than the previous era. In Thiện Hương, the land estate was divided into areas named after landlords who owned the land and were well protected by the state (see Table 2.1).

The French did not own any land in the village, with local landlords owning most of it, while most villagers owned very little or none, but still had to pay the head tax. According to elders, each *đinh* was allocated 2.2 *mẫu* at the time. The *dân nội tịch* who had land accounted for only about 20% of the population, and the remaining 80% were landless. It is important to note that many people from Xuân Phương, Phú Nhai, Thức Hóa, and Thọ Nghiệp communes who moved to Thiện Hương at that

Table 2.1 Land estate and land owned by landlords in Thiện Hương

	Land estate and land owned by landlords
1	Landlord Chánh Quyền who came from Hà Cát, which is presently known as Hồng Thuận, a neighboring commune of Giao Lạc, owned the Thượng Miêu area. Thus, the area was called the Chánh Quyền rice field. The total area of the Chánh Quyền field is about 80 mẫu. Landlord Chánh Quyền was an administrator at the time. He therefore had the right to bid for the Thượng Miêu land for rental and sharecropping.
2	The public rice land (*quốc gia công thổ*), presently known as Villages 21, 8, 9, and 10, was cultivated by peasants, who came from neighboring districts and provinces to reclaim wastelands and establish farms.
3	Landlord Trịnh Văn Yên, who came from Xuân Trường, and landlord Trịnh Văn Nhã in Thức Hóa, who took advantage of his connection with Priest Đệ in Đại Đồng to bring Catholics here to establish farms, owned the Phú Lục land.
4	Landlord Chánh Cung owned the Thọ trong and Nghiệp trong, Thủy trong, Thủy ngoài, and Thọ ngoài.
5	Landlord Bá Mai who was from the neighboring Hồng Thuận village owned the Lạc Thành, Thuận Thành, and Tư Như.
6	Landlord Xếp Long who came from Thái Bình province owned the An Tứ, which is now known as Villages 1 and 2 and part of Village 3. However, his wife, Tuấn Nhi, managed the area. When Xếp Long died, Mrs. Tuấn Nhi built a shrine to attract peasants to come to work on rice fields for her. They formed a village, which included 20 Buddhist households.
7	Landlord Đinh Văn Hướng, who came from Trà Đoài village in Xuân Phương commune, owned the Hạ khu, Trung khu, An Trạch, Tam Tùng, and Tứ Tùng. As Đinh Văn Hướng was well connected with Priest Đệ, he brought the Catholics from Trà Đoài, Phú Nhai, and several other places to the areas to establish farms.
8	Islands 8 and 9 and Giáo Phòng were owned by landlord Trần Văn Hy who was from Giáo Phòng (now known as part of Hồng Thuận commune). (Interviews with Mr. Đào in Village 1 and Mr. Cửu in Village 12 in Giao Lạc commune in 2000).

time were considered the *dân ngoại tịch* and were therefore not granted any land. With the majority of the villagers' poor without land to cultivate, to survive they had to work landlords' rice fields as sharecroppers to earn rice to eat.

According to the sharecropping arrangement, the sharecropper had to pay one-half of the yield after the harvest. Usually, the produce of one *mẫu* was 100 barrels[11] of paddy. Under this system, landlords would receive 50 barrels of paddy, but sometimes landlords chose the best rice in the field and left the bad rice for the sharecropper. In addition, sharecroppers were expected to provide the landlord with supplementary rents in the form of gifts on occasions of funerals and weddings or before the harvesting season, as well as unpaid labor (Ngo 1991). Otherwise, the landlord would not allow the tenant to work his land the next season.

Landlords often further exploited the poor and landless peasants by offering loans with high interest. A loan of one barrel of paddy during the "hungry season" (the period of food shortage prior to harvest) would have to be repaid with 1.5 barrels of paddy when the harvesting season came. During the harvesting season, peasants also sold their paddy to landlords at very low prices so they could pay back these loans. These poor and landless peasants would later have to borrow paddy again during the hungry season. The poor sometimes had to sell immature paddy to the landlord for half the price of ripe rice, earning them only half the money that they could have if they waited. The poor also usually had to pay for the contract writer when borrowing money from the landlord. Since the borrower did not have money to pay, he would end up paying two interest fees, one on the loan and the other for the writing fee. Thus, for a loan of 10 Đồng, the borrower would be given only 7 Đồng. Like sharecroppers, the borrower was expected to be grateful to the moneylender and to show it by working free of charge at the landlord's house or by presenting gifts to the landlord.[12] An example in 1930 in nearby Nghệ An province gives a bleak picture of the sharecroppers' situation. A rice field that can produce two crops a year would normally generate 2450 kg of paddy per hectare, of which the sharecropper would keep half (1225 kg worth $67 piasters in 1929). The sharecropper's expenses were estimated to be $8 for seeds and $15 for costs of equipment (plow animals, etc.), for a total of $23. Therefore, the sharecropper made $48 a year, or only $24 per harvest. "The sharecropper, therefore, earned nothing beyond the value of his labour, and even so, he was paid at a below average rate, low as that is" (Gourou 1940: 290).

In addition to the financial difficulties of sharecropping, beginning in 1897 in Tonkin, the French increased the level of the head tax, with all registered adult males required to pay an annual head tax of 2.50 piasters (Ngo 1991: 63; Scott, 1976: 133; Cao 1993: 27). However, peasants were actually forced to pay 2.70 piasters by village officers in Thiện Hương (ibid.). During the French period, taxes were paid in the form of cash and were much higher than in the previous imperial era. In 1938, in partial response to many protests that had rocked the colonies earlier in the

[11] One barrel of paddy is 10–12 kg of paddy.

[12] Interviews with Mrs. Giầu who was 83 years of age.

Table 2.2 Land ownership and tax payment

Land ownership (*mẫu*)	Tax payment (*Đồng*)
No land	1.00
Less than 5	2.50
5–10	7.00
10–20	14.00
20–40	24.00
40–100	35.00
More than 100	50.00

Source: Modified from Cao 1993

decade, the French instituted some tax reform in Tonkin, with the previous flat head tax of 2.5 piasters divided into seven new levels in accordance with the land area owned (Cao 1993: 27) (Table 2.2). This gave landless peasants some tax relief, for example, and shifted a higher burden to larger landowners.

All of these changes in land and taxes served to impoverish many villagers. Thiện Hương's poorest villagers often did not have enough to eat or sufficient warm clothing to wear during the wintertime. Paddy production was not stable due to irrational farming practices and acid sulfate soils.[13] The production was often only 60–70 kg of paddy/*sào* (*0.036 ha*). One of the only ways poor peasants could use to protest against their conditions was to cheat landlords (Ngo 1991: 52; White 1986: 56). For example, sharecroppers could harvest the best rice for themselves and leave the bad rice for the landlord's share. In cases where they were supposed to reap all the rice for the landlord, they secretly harvested a portion of rice and hid it away (Ngo 1991). They might turn in the wet paddy as the amount agreed upon, by sometimes adding stones to increase the weight of the landlord's share. They also left paddy in the field for poor children to glean while harvesting for landlords (White 1986: 57). Other sharecroppers borrowed the landlord's rice for seeding. When the harvest came, they did not return it to the landlord simply because they could not afford it. Although such acts of resistance did not halt the landlords' exploitation in the village, they show how sharecroppers responded to landlordism and sharecropping (ibid.).

[13] Acid sulfate soils are naturally occurring soils, sediments, or organic substrates that are formed under waterlogged conditions. These soils contain iron sulfide minerals (predominantly as the mineral pyrite) or their oxidation products. In an undisturbed state below the water table, acid sulfate soils are benign. However, if the soils are drained, excavated, or exposed to air by a lowering of the water table, the sulfides react with oxygen to form sulfuric acid.

2.3.3 Mangrove Management in the French Colonial Era

According to Gourou, writing in 1936, there were approximately 250 km^2 of mangroves throughout the Red River Delta (Gourou 1936: 371). On November 23, 1923, the French issued a circular letter on the intertidal area in Tonkin (Ta 2000: 40). The circular stipulated that the intertidal area belonged to coastal villages. To avoid appropriation of private land, the intertidal mudflats were granted in the form of *công thổ* (public land), which was reallocated every 8 years (ibid.: 40–49). According to a supplementary decree issued on August 27, 1935, the intertidal area was to be reallocated every 10 years. The land was to be allocated among the *đinh*, and, as in Minh Mạng's time, each *đinh* was to be granted no more than 3 *mẫu* (Ibid.).

Based on the information provided by village elders, in the late 1930s, Mr. Chánh Quyền[14] came to Thiện Hương and used his power to dispossess people from some of the rice fields they had previously reclaimed. He then built a dike almost 3 km long around his rice field, which was called Chánh Quyền. Chánh Quyền constructed the dike very carefully because he asked his people to put rocks at the base of the dike and planted mangroves outside the dike to protect it; elders recalled that the dike's height was then half that of the present dike. In 1939, the French started constructing the central dike on top of the Chánh Quyền dike, hiring local peasants to build it. Women were paid 25 cents/day while men were paid 30 cents/day, on the grounds that men were physically stronger than women and could work harder. Village officials and the *lý trưởng* recruited peasants for dike construction. A Frenchman called Cargo was assigned to manage dike construction workers, and it was said that the French were very cruel, beating villagers who worked for them as guards. Mangroves were then planted to protect the newly constructed dike. Those who were hired to plant mangroves were not paid, with only village officials receiving compensation. Thereafter, the village was mandated to manage the newly planted mangroves, with the village inhabitants allowed to collect mangrove branches for firewood, but no one was allowed to cut mangrove trees down.

After the central dike was constructed, the Phú Nhai dike was converted into a residential area and sweet potato fields. There were 11 houses built on the Phú Nhai dike at that time which are now part of Village 7. In the Chánh Quyền field, the soil was turned over after mangroves were destroyed and rushes were planted. There were also *cỏ năn* (*Eleocharis*) and other coastal thorny grasses on the site. After 3 or 4 years, the rushes did not grow very well, so those who had "bushwhacker" tools were hired to cut out *cỏ năn* and the rushes, including their roots, to later transplant rice there. Since there was no water gate to control the flow from the sea at that time, the water was highly saline in spring. Consequently, there was only one crop transplanted a year, which was called the autumn crop. An informant recalled:

> At the beginning only sticky rice could grow in the field. The soil was so hard that we could not use our hands to transplant rice. We used wooden sticks to dig the soil to make holes.

[14] Interviews with Mrs. Giầu who was 83 years of age.

> Transplanting rice required two people, one woman and one man. The man with the two sticks walked in front of the woman. The woman walked right after the man and after he pulled the stick out of the hole, she would have to place the seedlings in right away. At the beginning only one crop could be grown. After several years the soil in the field became soft and the mud was available, regular rice was grown. Two crops could then grow. Sluice gates played a very important role in the process of converting fields. Good sluice gates could help shorten the process.

Despite gaining his land from dispossessing poor peasants, surprisingly, Mr. Chánh Quyền is remembered as a kind-hearted man, unlike other landlords. He had servants who watched the field and collected crop shares from sharecroppers for him, and he usually leased his land to poor households so that the poor could eat. His servants looked after the seedlings and manure and were responsible for rice field management, but they were also his tenants and paid a share of the crop to him like his other tenants. In general, people worked on their own fields, but if they could not finish the work themselves, they would ask the others to come help and later the favor would be returned. This way of helping each other out is called *đổi công* (labor exchange), a practice that continues today, especially during the transplanting and harvesting seasons.

Elders recalled that during this era the mangrove forests beyond the central dike were about 3 m tall or more. No one remembers exactly how many hectares of mangrove the village had at the time, but it is likely there was approximately 100 ha.[15] In the forests were *Kandelia candel*, *Aegiceras corniculatum*, and *Avicennia lanata*, but *Kandelia candel* was dominant. The forests supported many kinds of waterbirds, such as egrets, herons, pelicans, wild ducks, and geese, as well as other wildlife, including eels, snakes, otters, foxes, and also honeybees. There were plenty of fish, crabs, shrimp, snails, and bivalves in the forests. To survive, almost everyone went fishing, caught shrimp and crabs, and collected firewood in the forests. Mrs. Giầu remembered:

> All households in the village, which on average had 7–9 children each, were mainly engaged in collecting intertidal coastal products in the mangroves and the mudflats. During the transplanting and harvest seasons, we did not go to the forests or the mudflats. But during the off-farm season we went there to fish, catch shrimp and crabs, and collect firewood and bird eggs. There were plenty of marine products so that one could collect as many as possible. Everyone was free to collect whatever he or she wanted to. No one stopped us from going into the forests and collecting marine products.

In 1940, the French Public Service Office assigned Mr. Sinh from Nam Định to guard the water gates in Giao An, Giao Xuân, and Thiện Hương to manipulate the freshwater for rice fields inside the dike. (The water gate was later named Kai Sinh after him, remaining in use today; Kai means keeper.) Mr. Sinh was in charge of freshwater management to make sure that all rice paddies inside the dike had sufficient water so that villagers would have bumper crops. Mr. Sinh was also placed in

[15] Interviews with Mrs. Giầu who was 83 years of age.

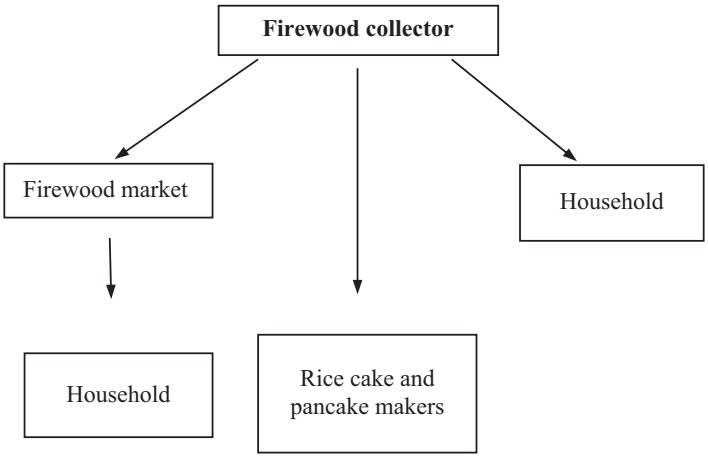
charge of guarding the mangrove forests.[16] The French Public Service Office paid Mr. Sinh until 1945, but between 1945 and 1948, the Vietnamese government in power did not pay Mr. Sinh. In 1949, the French came back and Mr. Sinh worked as a water-gate guard again with the French paying his salary until 1952, when he and his family went back to Nam Định. The French then appointed two men, Mr. Lý Tuất and Mr. Lý Sinh of the *lý dịch*, to be responsible for the water gate and the mangroves on behalf of the French. However, the villagers still went to the forests to collect firewood, shrimp, crabs, bivalves, and bird eggs and catch fish to either eat or sell at the Đại Đồng market for cash to buy rice to support their families.[17] At that time, people did not have sufficient rice to eat because the soils in the rice fields were so acidic that rice could not grow well, and they had only one meal per day. Consequently, the mangroves and mudflats became a critical source of protein and income for villagers.

Three–four hours of work would be sufficient for women to collect several bundles of firewood; the villagers did not cut mangrove trees down for firewood but collected the dry branches. They selected the best branches for sale and saved the poorer ones for domestic purposes. Firewood was sold at the Đại Đồng market for very low prices to vendors who made rice and pancakes, with the firewood collectors sometimes having to bring the firewood to the purchasers' houses. Usually the buyer did not pay the money right away, and the collector would have to wait for a couple of days or even longer to get paid; further, the money they earned from selling 20 kg of firewood was enough to buy only 0.8 kg of rice. The firewood commodity chain is illustrated in Fig. 2.1.

Villagers also went to the mudflats to collect bivalves, such as *ngao* (*Meretrix* sp.), *don* (*Glaucomya chinensis*), *móng tay* (*Solen corneus*), *vọp* (*Mactra quadrangularis*), *ghẹ* (*Portunus pelagicus*), *ngó* (*Cyclina sinensis*), and *cáy* (*Sesarma plicata*). *Cáy*, which look like crabs, were used to make a sauce that tastes much better than fish sauce. Men were engaged in collecting marine produce, and because women and children were not granted any land, women had to go to the forests and the intertidal area to collect firewood and other marine products, all of which were sold at the Đại Đồng market to buy rice to support themselves and their families. At the time, the mudflats were much larger than they are today and were common property open to all villagers. There were many bivalves, often as big as rice bowls. Light planks were used to move the soft mud to catch them. (Later, small rakes replaced the light planks in the 1990s.) Crabs were common and caught by hand—no tools were used to collect them. On the way home, crab collectors usually put all the crabs on the dike to choose only the large ones and then released the small ones, as it was said that young crabs did not have sufficient meat and became much smaller after boiling. One barrel of crabs or bivalves could be sold for 10–15 cents

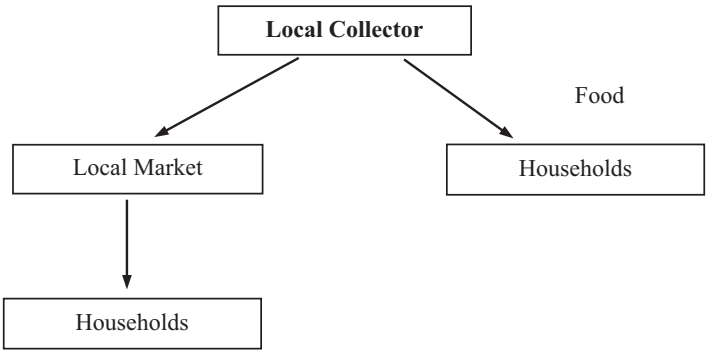
[16] Mr. Sinh joined the French army, and he spoke French very well. That was how he was selected to be the guard as he remained until 1952.

[17] According to Gourou (1945: 516–523), those who buy and sell husked rice are called the *hàng sáo*. They are not only artisans who process paddy but also small rice traders who themselves sell husked rice in the market or from door to door.



Source: Field research 2000.

Fig. 2.1 Firewood commodity chain from collector to consumer in the colonial period
Source: Field research 2000



Source: Field research 2000.

Fig. 2.2 Coastal product commodity chain from collector to consumer in the colonial period
Source: Field research 2000

at the Đại Đồng market. If one spent the whole morning in the forest collecting crabs and bivalves, one would earn enough money to buy more than 1 kg of rice, and one basket of small-sized fish could also be sold to buy more than 1 kg of rice. All marine products were sold to local consumers or Catholic traders; at the time, the majority of marine product traders were Catholics, with most of the firewood and marine product collectors Buddhists. But since everyone could collect shrimp, crabs, and bivalves, there was little market demand for these products, and the prices were therefore very low. The intertidal coastal product commodity chain from collector to consumer at that time is illustrated in Fig. 2.2.

Although there was no law concerning forest exploitation and management, no one cut mangrove trees down for firewood or shot birds for food. One might argue that, since there were fewer people at the time, the pressure on resources was lower. Important as well is that there was little market demand for these products. Consequently, no one needed to cut trees or harvest unsustainable quantities of marine products. This may be correct to some degree; however, population pressure and market demand were not the main factor driving resource use. The key issue to recognize here is that the villagers devised their own use conventions, known today as resource conservation. For example, they did not cut down mangrove trees for timber of firewood or shoot birds for food or collect baby crabs or baby fish for food or for sale because they wanted to protect the mangroves and mangrove-related resources, which their livelihoods were dependent on.

2.3.4 Class Differentiation Under the French

At the twilight of the French colonial era, village households were quite differentiated in wealth and status, with the *hội đồng kỳ mục* replaced by the *hội đồng tộc biểu*, and landlording was expanding. Those who had several *mẫu* of land were better off, and those with several dozen *mẫu* of land were considered wealthy. Since they had land, they hired people, most of whom were the landless *dân ngoại tịch*. The majority of land was in the hands of landlords, with the majority of villagers having either no land or only small amounts of infertile land, but still they were required to pay the head tax. While sharecroppers were not passive and resisted the landlords' exploitation, overall, their chances to improve their lives were limited. In addition, Catholics were also engaged in profitable local alcohol brewing, and many Catholics with money bought land. As a result, many of the Catholics were better off than the majority of Buddhists. In summary, social differentiation continued to a deeper extent compared with the previous period.

Gendered differentiation was also prevalent because women were governed by "three obediences." When they were girls, they were expected to obey their fathers. After they got married, they owed obedience to their husbands, and widows were to obey their eldest sons. The persistence of patriarchal values within Vietnam's patriarchal society situated women in the private sphere, constrained women's freedom of movement, and respected men while disregarding women. As wives did not have rights to land, they were required to contribute labor to the husband's family. Mrs. Ngôn recounted her experience:

> I did not have any right to my husband's property. Instead, I was the property of my father or my husband. Women were bought and sold as part of that property. We were not allowed to go to school. We were prohibited from ownership and inheritance. Many women were beaten by their husbands. As a result, we were confined to the private sphere and household duties.

Because women and children were not allocated land, they depended very heavily on the mangroves and the mudflats, which served as their main source of income.

2.4 The Resistance War Period (1946–1954)

2.4.1 The Japanese Occupation and the 1945 Famine

Throughout WWII, the Vichy French regime and Japan held an uneasy truce, which allowed for a limited Japanese occupation, while the French held nominal control of Indochina (Jennings 2004). But on March 9, 1945, that agreement came to an end, and the Japanese seized control of Vietnam (Fall 1967: 59; Marr 1997: 107). The most significant impact of WWII on Vietnam was not rival hostilities, however, but a massive famine that killed nearly two million Vietnamese, mostly in the north of Vietnam in 1945. Starting in October 1944, hunger and starvation descended on northern Vietnam; reporter Trần Văn Mai recorded at the time that "The days and months dragged by slowly. Rain, wind, hunger and cold seemed to slow down the wheels of time. It was so cold that people would lie in haystacks, covering themselves with banana leaves. They were so hungry that they had to eat marsh pennywort, potato leaves, bran, banana roots, and the bark of trees. The villagers—fathers and sons, brothers and sisters, husbands and wives, all of them alike—could no longer save one another. Regardless of the time of day or night, the hungry people, over and over again, would hug each other and would moan tragically."[18] By spring of 1945, while under Japanese control, death was widespread; a typical newspaper report from April 1945 read: "A dead dog or a dead rat was an occasion for the entire hamlet to get together and share a few bites. An old man refused to eat and died a slow death, trying to leave his share of the rice soup to his four- and ten-year old grandchildren" (Khanh 1971).

The exact causes of the famine were debatable, but it is clear that they were not simply a natural disaster (Bose 1990). Flooding had led to failure of the fall rice crop in 1944, then again in summer of 1945. But this was combined with a Japanese wartime policy of forcing farmers to plant industrial crops such as jute, ramie, or castor oil seeds on fertile rice lands (Marr 1997: 34–35). The French were also blamed for their lackluster efforts at famine relief in previous bouts of floods and droughts, and they failed to anticipate the scale of the disaster of 1945 in time (Nguyen-Marshall 2005).

In Giao Thủy, the Japanese ruled through the mandarin regime and were based in Nam Định city. The Japanese occupation forced villagers in Thiện Hương to replace much of their rice production with jute, cotton, and maize, for which they received very little (earning only 10–12 cents for every 10 kg of jute). Villagers had to pay

[18] Translation of *Ai gây nên tội* (Who Committed this Crime?), first published in 1956 by Trần Văn Mai, in (Ngo 1991).

taxes to the Japanese, instead of to the *lý trưởng*, and at very high rates (200 kg of paddy per *mẫu*). Village officers also forced villagers to pay additional levies, which were then divided among them, and the *lý dịch* arrested the husbands of those families that could not pay the taxes. According to those interviewed, landlords were actually worse off then since they had to pay more in taxes, and had to sell paddy to the Japanese, no matter how little they harvested. Many people left their native villages to avoid accumulated taxes, hoping for a better life elsewhere, and many ended up working for the Japanese in more northerly coal-mining areas.

Japanese soldiers also looted local rice supplies; elders recounted how the Japanese frequently visited households in the village. If they saw anyone who had a large basket of paddy, they tapped on the basket and asked, "Have you eaten yet?" and then took all the paddy away. In 1945, the village was hit by a huge flood in which maize and cotton fields were devastated by saline water. Only those crops grown on higher ground in the home garden or in the front yards survived. This disruption of local food production was a major reason for the widespread famine that year.

Both Catholics and Buddhists suffered during the famine in 1945, and 762 villagers in Thiện Hương died because of hunger; many households lost all of their members. In some villages, there were only five to seven households left. All of this is written on the memorial stele in Giao Lạc, inscribed with the number of people killed and number of houses burned; it still stands there today. During the famine, many people in the village only survived because of access to their mangrove forests because they would eat mangrove fruits as a replacement for rice, grinding and boiling the fruits and mixing them with rice bran to eat.

2.4.1.1 Rise of the Việt Minh

On August 14, 1945, Japan surrendered to the United States, resulting in conditions initially favorable in Vietnam and other Asian countries for native people to seize political power. Soon thereafter, on August 19, 1945, the Việt Minh took control of Hanoi and Saigon.[19] On August 30, Emperor Bảo Đại resigned and handed over state power to the representatives of the Việt Minh-led National Liberation Committee of Vietnam. On September 2, Hồ Chí Minh declared the independence of Vietnam, and the Democratic Republic of Vietnam came into being (Fall 1967: 64). A provisional government was established under President Hồ's leadership (Nguyen 1987: 220; Marr 1997: 473–538).

On August 20, 1945, in Giao Thủy, local people regained power from the Japanese in Ngô Đồng and Giao Thủy, and the People's Provisional Council of Giao Thủy district was quickly formed.[20] As the colonial administration at the district,

[19] Việt Minh is short for Việt Nam Độc Lập Đồng Minh Hội, or the Vietnam Independence League, an anti-colonial resistance group, led by Hồ Chí Minh.

[20] Nam Định city was not liberated until March 1947 (Fall 1967: 77).

commune, and village levels collapsed, the new government of Vietnam established a new system at all levels to stabilize the political and social situation. New institutional arrangements were created to establish direct relations between the government and the peasants and to gain control over resources in the countryside so as to distribute public land to poor peasants through the Commune People's Council.

In Thiện Hương, some landlords fled, but the majority of landlords stayed with the property they had exploited and waited for the situation to improve. Many rice fields were abandoned since those who survived after the famine in 1945 were so weak and ill that they could not work in the rice fields, and the majority of the peasants did not have rice fields to cultivate. After the famine, people immigrated from other areas, such as Thái Bình province and nearby towns such as Xuân Trường and Xuân Tân, into Giao Thủy. During this period, landlords still rented their land to poor and landless tenants, including the newcomers. Those resettled households that had extra labor converted wasteland into rice fields and also engaged in sharecropping. The rice paddy of 80 *mẫu* in the front of Village 7 was still owned by landlord Chánh Quyền, who had died in 1945, reportedly from being poisoned, and his son leased the land to poor peasants until 1952, when he was forced to give almost all of his land to the government.

In response to these dire conditions, a circular letter issued by Hồ Chí Minh's Ministry of Interior in November 1945 required tax relief. The local government of Thiện Hương abolished the head tax, reduced the land tax for peasants by 20%, and forced landlords to decrease the land rent for sharecroppers by 25%. Also, gambling, alcohol, and drugs were prohibited. The local government temporarily redistributed public land to males and females who were 18 years of age or older, although more serious land reform measures against landowners did not begin to take effect until 1953 (discussed in more detail in the next chapter).[21] In the village, additional measures were launched to help hungry people. Most households kept a jar of reserved rice for hungry people in response to Hồ's appeal to "skip a meal every ten days, save a condensed milk tin of rice every meal, skip three meals every month." The local government even prosecuted those engaged in alcohol brewing to save rice. Hunger was alleviated due to these urgent actions, and the villagers' livelihoods were improved and stabilized.

2.4.1.2 Mangrove Forests Under the Provisional Government

As noted earlier, in 1945 during the famine, mangroves played an important role in helping some households survive. Poor and hungry villagers went to the forests to dig *Kandelia candel* shoots and collect fruits; fresh *Kandelia candel* shoots, especially the big ones, were said to be very sweet and delicious. Dried *Kandelia candel* fruits were usually mixed with rice to eat, but elders recall that the fruits tasted very bitter, yet people had to eat them anyway since they did not have sufficient rice.

[21] Interviews with a former cadre of the Giao Lạc Party Cell, Mr. Thanh.

Kandelia candel bark was also used to soak salted white jellyfish, which were eaten as a replacement for rice (tannin from the bark helps eliminate the poison in jellyfish, with this practice continuing today).

Between 1945 and 1948, the guerrilla forces of the Việt Minh guarded and managed the mangrove forests. According to key informants, the mangrove trees were not as tall as in the previous time since many were newly planted after the construction of the dikes. The forests were still visible throughout the area from Giao Xuân, Giao An, and through Thiện Hương communes, and there were many waterbirds and other small animals in the forests. According to village elders, they went to the forest to collect dry branches for firewood for both domestic use and for sale at the local markets, and the commodity chain from collector to consumer was the same as in the colonial time. They also went freely to the forests to collect crabs, shrimp, and bird eggs and to catch fish. Villagers did not sell bird eggs but brought them home to boil and eat. There were so many crabs in the forests, but few wanted to eat them. Collectors usually brought crabs that they had caught to the local market to sell to buy rice to support their families; however, the price was very low. (A basket of crabs that weighed 15–16 kg was traded for no more than 1 kg of rice.) A key informant recounted her experience as a collector of marine products during this time:

> Crabs were found around the foot of a mangrove. If the crabs were found in a hole, several crabs would be collected. If I spent three or four hours in the forests, I could collect several baskets of crab. There were also plenty of freshwater fish in the wasteland area. The most common species were snake-headed fish and cá hàu (Pseudobargus gulio). We chose the largest and nicest shrimp, fish, and crabs and brought them to the Đại Đồng market to sell to both consumers and traders. However, the prices were very low. If I put grape nets out for a night, I could catch enough to buy about 0.8 kg rice.

2.4.2 The Return of the French to Thiện Hương (1949–1953)

At the end of October 1949, the French military forces attacked villages in Xuân Trường and Giao Thủy districts to support the local forces fighting against the newly established government of Vietnam. That was the beginning of the most difficult period for the southern Nam Định people, including Thiện Hương's villagers. The French associated themselves closely with the Catholic chiefs of local pro-French forces, using them to arrest and kill the Việt Minh. Fences and guards were put around villages, causing chaos, while a number of priests became commanders, wearing army uniforms and carrying guns. The French established "Autonomous Dioceses," led by priests, who raised their own troops and ruled their own domains, holding both civil and religious powers (Murti 1964: 73). They cleared many revolutionary bases and drove a wedge between the Catholics and the Buddhists: Churches became the posts of the local pro-French forces, where the Việt Minh and those suspected of association were tortured and even killed.

According to elders, after only 2 months of French reoccupation, all the revolutionary achievements that the new government of Vietnam had brought to the poor were abolished in the village. Those who received land after August 1945 had to return it and the sharecroppers had to reimburse landlords for the rent reductions they had benefited from. The public paddy fund and rice fields of households with family members in the Việt Minh armed forces or guerrillas were confiscated and burned down. A number of other taxes that had been abolished by the Vietnamese government after 1945 were reinstated and collected again.

Mangroves became an important staging ground for the struggle between the Catholic pro-French forces and the local Việt Minh militia. Between 1949 and 1952, Thiện Hương was an occupied commune under the French and Catholic leadership. The Thiện Hương Communist Party Cell therefore decided to evacuate the Buddhist villagers and a small number of Catholics who had joined the resistance to the mangrove forests in Tiền Hải district, Thái Bình province. They walked through the mangrove forests in Giao An and Giao Thiện to Tiền Hải, while the majority of the Catholics stayed behind in Thiện Hương. Elders recalled that Tiền Hải became their temporary residential area, which was suitable for growing wet rice, while strengthening the Party Cell to prepare to resist the French colonialists.

However, in early 1950, Thái Bình province was occupied by the French, and the Thiện Hương revolutionary villagers returned home. When the villagers came back, they found that their houses had been destroyed as a consequence of their guerrilla activity, so they relied on timber from the forests to build temporary kitchens and houses, with walls made of earth. Those who were members of the Việt Minh were separated and put in prison where they were cruelly tortured, and some fighters were forced to become Catholic to get out of prison.

The mangroves became revolutionary resistance bases once more. The guerrillas and communist cadres hid in the forests during the day, but at night cadres went back to the village to contact villagers and deepen their roots among them, including some Catholics. During this period, cadres moved back and forth from their refuges in the mangrove forests and the village. Buddhist women whose husbands were in hiding as professional soldiers or guerrillas were also engaged in collecting marine products to sell at the local market to buy rice for their families. When the French and the Catholics raided the village and the guerrillas were not well equipped to fight them, the guerrillas and officials would hide in the forests. The village's young men often had to take refuge in the forests as well, leaving women and children behind to avoid being pressed into service in the French armed forces.

2.4.2.1 Establishment of Giao Đồng Lạc and Liberation of Thiện Hương

In February 1952, to expand the area controlled by the guerrillas, Thiện Hương was once again reorganized by the Việt Minh. A number of Thiện Hương's villages and Giao Thuận commune's villages were unified and merged into one commune named Giao Đồng Lạc, with 21 villages. The Giao Đồng Lạc Party Cell was also reinforced to motivate the villagers to fight against the French colonialists, as well as against

hunger and illiteracy. The Party Cell mobilized young men to join the army and fight in major campaigns to defeat the French, including the Điện Biên Phủ campaign in the northwest mountains. According to those interviewed, by the end of May in 1953, three artillery regiments and one local infantry unit were established by the Việt Minh.

After the sudden French defeat at the battle of Điện Biên Phủ on May 7, 1954, the French finally evacuated Nam Định, leaving on July 1, 1954 (Fall 1967: 127). Giao Đồng Lạc was liberated from July to the end of 1954, while the French and many Catholics fled to the south of Vietnam (Quigley 1968: 176–77). According to the provisions of Article 14 (d) of the Geneva Agreement that had settled hostilities with the French, all civilians in Vietnam had the right to choose the zone in which they would like to live within a 300-day period (Murti 1964: 70).[22] However, in the provinces of the Red River Delta, during the initial stages, the local authorities did not permit or assist those who wanted to go south (ibid.: 80). But at the insistence of the International Commission for Refugees, between November 2 and 25, 1954, more than 10,000 permits were issued to people to move south (ibid.: 74). In Giao Đồng Lạc, local opposition forces took advantage of the villagers' belief in Catholicism and convinced most Catholics and even some Buddhists to flee to the south, arguing that the Virgin Mary had gone to the south, or that the Americans would bomb the north of Vietnam killing everyone. After the restoration of peace to the commune, a memorial stele was constructed next to the Đại Đồng church, on which the number of people killed and the number of houses burned down during the resistance were recorded.

According to Giao Lạc's population records, in 1954, the commune supported a population of 1400 people divided into 120 households. During this time, the villagers still rented deceased landlord Chánh Quyền's land, as well as that of some other landlords. Sharecropping was also employed. Elders recalled that tenants usually got seven–eight barrels of paddy/*sào*, and when they were lucky, they could produce ten barrels of paddy/*sào* before taxes. Newcomers were often involved both in reclaiming fallow land and in sharecropping.

Later in 1954, land reform measures were applied in the liberated commune. Due to the land tax reduction of 20% and a land-rent decrease of 25%, many landlords discovered that they would benefit little from the policy and therefore returned part of their land to the village. The village also took land from French collaborators. According to key informants, the village distributed this land to male and female landless peasants aged 18 or older. On average, everyone was allocated 3 *sào*[23] of land, which included both fertile and infertile rice fields. The local government encouraged villagers to work in the rice fields, but nobody wanted to since they did not have cash to buy seeds or buffalo to plow. More importantly, they could not afford to wait 6 months until the rice was harvested. In addition, there was a policy

[22] According to the provisions of the Geneva Agreement of July 1954, Vietnam was divided into two independent sovereign states at the 17th parallel with the hope of unifying the country by means of general elections at a later date (Murti 1964).

[23] One *sào* is equivalent to 360 m^2.

on immigration that people who were not from the commune were not allocated land and should return to their native villages. People from Phú Nhai and other villagers who had owned land in the commune did not dare to come back to work their rice fields or rent them out to poor villagers. Consequently, there was more land available in the village.

2.4.2.2 Mangrove Forest Management Under Conflicted Vietnam

During the French reoccupation, the French managed the mangrove forests with Mr. Sinh in charge again. Both Catholics and Buddhists went to the forests to collect dry branches for firewood and other marine products. Women said that they had to ask Mr. Sinh for permission to collect fuelwood, but he never refused them. However, it was not easy to collect firewood; it was so muddy in the forests that it was difficult for women to walk with a bundle of firewood on their shoulders. The money earned from 20 kg of firewood was only enough to buy 0.8 kg of rice. Men also went to the forests and the mudflats to catch fish using small boats and to collect shrimp and crabs. There were many different species of fish and shrimp, and crabs were plentiful, especially in March of the lunar calendar. There were plenty of waterbirds, which made nests in the trees, and the villagers usually looked for stork and cormorant eggs. Egrets, pelicans, and common teals swam in flocks in rice fields and on the mudflats, and villagers sitting at home could also hear woodpeckers all day and night.

The returned French administration also promoted the commercial harvesting of mangrove trees for firewood, which changed rights of access to mangroves. Those who had power in the village, such as commune officers and their relatives, granted timber concessions to outsiders, who then hired Catholic men to cut the forests for firewood, while Buddhists were not allowed to participate in this activity. One could earn 20 piasters for an area of a *mẫu* of tree cutting. Hired villagers were told in advance to cut only the big and tall mangroves and leave the small and poor ones. A key informant who was hired to cut mangrove trees recalled:

> At that time 20 Catholic men were hired to cut mangrove trees down. It was believed that men were strong and they knew how to do the job. Women were not hired at all. We were asked to cut the good mangrove trees and leave small and bad ones. Trees were cut during the day and they were transported to the dike at night by boat. We were also asked to dig out the roots of the trees.

After trees were felled, they were placed in lines and then transported to the dike by boat at high tide at night, where another group of villagers later chopped them into pieces 1 m long and arranged them into 10-kg bundles for transport to Nam Định town by boat.

There was also local demand for wood, particularly when French soldiers and collaborators destroyed Buddhists' and communist officials' houses. If these powerful people did not give them permission, they were not permitted to go to the forests that had been previously open to them. This change from open to closed

access to the mangroves angered the majority of villagers, but they were forced to comply.

Between 1952 and 1954, no one was assigned to guard the forests, and Mr. Kai Sinh went back to Nam Định with his family. However, because of the violent conflicts between May and September 1953, no one dared to go to the forests. But after the commune had been liberated, both Catholics and Buddhists made a living collecting firewood and marine produce again. They went freely to the forests to collect firewood and marine products to earn money to buy rice and did not have to ask for permission as they had in the French time. There were also no traders during this period since only those with permission papers could go to the occupied areas. Therefore, communication and transport between the liberated area and the occupied area were very difficult, and trading in marine products was started again only in 1954 when the whole region was liberated. Yet at that time, only the Catholics became traders, and the collectors sometimes had to bring their products home for dinner because the supply was greater than demand with very low prices.[24] Many villagers knew that they would be able to sell their products for better prices in the district town about 8 km from the commune, but they could not since the road was very bad, and they had no means of transportation except by foot. Moreover, since it was a dirt road, it was more difficult to walk from the commune to the district town. Therefore, commercial demand for marine products remained low.

2.5 Conclusion

In the early history of mangrove management in Giao Lạc, the village experienced multiple kinds of social organization in natural resource management. These included the precolonial government, the French colonial government, Japanese occupation, and independent, liberated Vietnam. Modes of access and control over resources, with patterns of social differentiation and access rights changed dramatically from the 1800s when the village was founded through the period of the establishment of an independent Vietnamese state in 1954.

Social differentiation existed since the establishment of the village, but during the precolonial period, class-structured, kinship-centered, and male-oriented hierarchy characterized the village. Women and children were not registered as *đinh* and were dependent on the registered men in the family. Women were not among the ruling elite and were excluded from village administration. During the colonial era, social differentiation worsened to a larger extent. Landlords in the commune owned most of the villagers' land, while women, children, and the *dân ngoại tịch* (outsiders) were not allocated land. Many Catholics were wealthier than the majority of the Buddhists, which further strained social ties.

[24] This situation has changed recently, and the majority of traders now are Buddhists. In Village 7, during the course of the fieldwork, all the traders but one were Buddhists.

In response to social differentiation, poorer villagers often resisted the local elites. Although their acts of resistance did not put an end to the landlords' exploitation or to French privileges granted to the Catholics, they reveal how active the villagers were in making rational economic calculations in resisting landlordism, sharecropping, and the unfair administrations.

Mangroves also played important roles throughout this period. In the precolonial period, mangroves were used for harvest of important supplementary food sources and occasionally income, although markets for aquaculture products were minimal. The wetlands around villages became sites of rice field development through active reclamation measures by new peasant households. Mangroves were also planted and nurtured to help provide infrastructure support, like dikes, that helped make agriculture possible in this swampy zone. During the 1945 famine, the mangroves literally saved villagers' lives by providing sustenance when there was no rice. The mangroves also served as revolutionary bases for the campaign of the Việt Minh against French colonial administration. Later, mangroves served as commercial income sources in the form of fuelwood trade for French authorities and collaborators; those who had power gained access to the mangroves, while those who did not have connections or were poor were excluded. In this period, access to the forests changed from open to restricted and then again from restricted to open access when the commune was liberated, setting the stage for new changes in land management that were to come in independent North Vietnam.

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Chapter 3
Socialism, Cooperatives, and Mangrove Management in Giao Lạc (1954–1985)

Abstract This chapter focuses on the transformations in Giao Lạc during the era of socialist and cooperative management from 1956 to 1988; in particular, the chapter examines villagers' patterns of resource access and use and socioeconomic differentiation. The chapter examines how control over resources was enforced under new state political and institutional arrangements and how men and women utilized resources during this period. The chapter also investigates what forms of resistance villagers used toward changing policies.

Keywords Cooperatives · Institutional arrangements · Resistance · Socialism · Transformation

3.1 Introduction

This chapter looks at changes in land and society under the Democratic Republic of Vietnam (DRV), which was established in 1954. There are three significant political periods under the DRV that had major impacts on land and mangrove use. In each of these periods, the balance of power between the individual households, local community governments, and extra-local governing institutions varied in terms of the different ways in which resources were used (Rambo and Tran 2001: 118). The first period was the new DRV government's land reform, which was aimed at returning land to farmers. The second period was the cooperativization of agriculture and political reorganization of villages, which happened from around 1956 onward. The third period was the gradual relaxing of economic rules and socialist organization toward more localized, independent, and market-oriented policies, which occurred in the late 1970s, and culminated in the *Đổi mới* (or renovation) policy period after 1986, all of which are discussed in the following chapter.

The chapter finds that cooperativization and collectivization policies had great impacts on villagers' patterns of resource access and use. Although the early post-land reform decade of mutual aid teams and low-level cooperatives was short,

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cooperative members' livelihoods improved greatly. Social differentiation in this period also continued to occur, despite the assumption that everyone was equally poor in the collective era. The mangroves were deteriorating in the late 1960s as the commune economy became more integrated into the wider regional economy.

3.2 Land Reform in the Democratic Republic of Vietnam

After the restoration of peace to North Vietnam in July 1954, Vietnam's economy needed to recover from the difficult conditions caused by the Franco–Vietnamese war, and land reform was the crucial first step (Cuc 1995). This transformation of the rural countryside under the new DRV through the reform and redistribution of land and property relations was aimed at what leaders often described as "throwing off" the dual chains of colonialism and feudalism (Chu et al. 1992). The major objective of land reform was to redistribute power from landlords and rich peasants to the majority of the peasantry and to recruit supportive cadres from among the peasants (Koone and Gleeck 1970: 35; Moïse 1983: 10; White 1986: 57; Wiegersma 1988: 138–139).

As early as 1947, the Việt Minh had begun redistributing land from French plantations to poor peasants or to landowners who had fled occupied areas. Rent reduction campaigns had also been carried out (Tran 1979). More extensive land reform policies expanded across North Vietnam when a national law was passed in December 1953, which was directed at "seizing land from French colonizers and other invaders, and erasing the feudalism of the landlord system."[1] As Moïse explains:

> This movement involved much more than taking land from the landlords and giving it to the poor; it was directed against all the sources from which the old rural elite drew its power. The goal of the land reform was not only to take away the land and other wealth of the landlords but to cut them off from the psychological and organizational bases of their power and to destroy their prestige, so that they would lose all influence over the peasants (Moïse 1983: 4).

Land reform committees, which consisted of both local and national cadres, were established at the national, regional, and provincial levels, and these committees were in charge of the enforcement of the new law (Van Tao 1983 : 6; Koone and Gleeck 1970: 31). According to the land reform law, all land, farm implements, and draft animals belonging to colonialists, landlords, and village notables who had committed "crimes" were confiscated (*tịch thu*). Land belonging to those who had not committed serious crimes would be requisitioned (*trưng thu*). The rest was purchased by the government (*thu mua*). An exception was made for those who had participated in the resistance (Nguyen 1987: 279–280; Quang Truong 1987: 32; Van Tao 1983: 2–3).

[1] Luật Cải cách Ruộng đất [Law on Land Reform Dec. 1953].

According to the law, the rural population was divided into five categories (Chaliand 1969: 40, 41; Truong 1987: 32–33; Koone and Gleeck 1970: 37; Nguyen 1987: 289–291), and land was to be taken from landowners and redistributed to the landless and poor, a process called "land to the tiller" (*người cày có ruộng*). Large landowners (*địa chủ*) were the rural bourgeois who did not work on their land but whose income was from land rental and usury; the rich peasants (*phú nông*) were those who had land but who also exploited employed labor and lead a comfortable life. The middle peasants (*trung nông*), together with the rich peasants, formed the rural petty bourgeois but lived solely by tilling their land without exploiting others. The poor peasant (*bần nông*) was someone who owned too little land to meet his needs and had to rent additional land from others or hire himself out as a farmhand for his livelihood. Finally, the *cố nông* was the landless peasant: He owned nothing at all, neither land nor implements, and constituted the core rural proletariat because he had to sell his labor all year round to stay alive.

The process of land reform lasted 3 years and 10 months and was focused on the Red River Delta region where it progressed in five stages (Van Tao 1983; Kleinen 1999a, b: 96–97). The land reform was carried out in the villages by cadres who stayed with poor peasants, practicing what came to be known as the "three togethers": living together, eating together, and working together (Wiegersma 1988: 138–139; Koone and Gleeck 1970: 37). However, the rapidity and scale of the policy resulted in traumatic upheavals in many areas when "land reform teams came into northern villages to transfer land titles to poor and landless peasants. These teams were composed of cadres from outside the villages and typically used quotas to fulfill expropriation targets. Their highly politicized campaigns relied on class struggle, ideological fervor and often violence against selected 'enemies of the people'" (Werner et al. 2012).

After the reform was completed, more than ten million people in two million households were allocated land, with approximately 700,000 ha of land redistributed to poor and landless peasants throughout North Vietnam during this time (Moïse 1983). Nevertheless, many mistakes were made during the land reform campaign, as officials later admitted. They blamed policies for land reforms that were based on Chinese models without modification; failure to distinguish between landlords who had contributed to the revolutionary efforts; failure to consider the families of landlords who had worked with the revolution and those who had children who had served as soldiers; unjust treatment of the innocent; the use of excessive violence; and the tendency to look upon middle peasants as rich peasants and rich peasants as landlords (Van Tao 1983: 5; Chaliand 1969: 42; Wiegersma 1988: 140; Moïse 1983: 234–36). Consequently, more than 5000 identified landlords killed, 23,748 people wrongly arrested, more than 50% of the "landlord" households were wrongly labelled, and 6000 people wrongly branded as tyrants (Van Tao 1983). A later "Rectification of errors" campaign took place in 1956 and 1957 after the Politburo met to replace hardliners who had been accused of turning the land reform into a ruthless enemies' campaign (Moïse 1976).

3.3 Land Reform in Giao Đồng Lạc

Nam Định was one of the provinces where the land reform was to be carried out in the fifth stage from December 1955 to July 1956 (ibid.; Quang Truong 1987: 34). Thiện Hương commune had been renamed as Giao Đồng Lạc in 1952 and was liberated in 1953, when the first initial land reform measures were carried out, including land allocation to both males and females aged 18 or older. Formal land reform was begun in mid-1955 and was completed in mid-1956. According to key informants, the purpose of the first group of cadres who came to the commune was to mobilize villagers to form mutual aid groups. Several months after this group left, a land reform team of more than ten cadres arrived at the commune. One or two cadres were sent to each village, depending on the size of the village. They looked for poor peasants and stayed with them and relied on their information to understand the difficulties that the poor had experienced and to identify reactionary forces. But it was very rare that the Catholics let the cadres stay in their houses. A Catholic key informant recalled:

> At the beginning, the cadres wrote slogans on our house walls, such as "Overthrow all landlords, attain benefits for people." The cadres also said that the government supported the anti-landlord struggle and the redistribution of landlords' land to poor peasants. Priest Tinh in Bùi Chu asked the Catholics not to receive any land or belongings that land reform cadres confiscated from landlords and distributed to the poor, and that those who were distributed landlords' belongings and land should return them to their owners. Otherwise, he or she would be required to plead guilty at church.

Cadres had meetings with the Farmers Association and poor peasants, or "basic peasants," who were required to carry out the land reform every day to identify who were landlords and rich and middle peasants. The local peasantry in the commune was divided into the same categories as in the national classification that stated very clearly that the village was required to find that 5% of the total residents were big landowners, 10% were rich peasants, and 20% were middle peasants. Mr. Đào recalled his experience as a member of the land reform team:

> While staying with poor peasants, cadres were given incorrect information. Some poor peasants had been exploited but were not overexploited. They were exaggerating landlords' and rich peasants' past sins against tenants so that they could benefit from the land reform. The fact that land reform cadres were not from the commune and relied too much on the commune's poor peasants, led to wrongly arresting a number of Party members. These people were not released until the "Rectification of errors" campaign was carried out in mid-1956.

Meetings took place for several months before landlords were identified. Public hearings and denunciations (*đấu tố*), where poor and landless peasants could bring evidence against landowners, were carried out at the village level. Those who were denounced as landlords were to be "eliminated" (*xóa bỏ*), which entailed actions ranging from land confiscation to execution. Those landlords branded as tyrants were denounced at the special Land Reform Tribunal, where people had the right to judge, condemn, and even kill those who were labelled "brutal" landlords. There

were three tribunals in each commune, and every two or three villages shared one tribunal. Landless peasants who had been these landlords' servants (*khổ chủ*) were invited to the tribunal as witnesses, and there was no appeal for false accusations. Those who were classified as landlords were very frightened because they were easily labelled as tyrants and consequently killed. There were 12 identified landlords in Giao Đồng Lạc, of whom two (Mr. Ngự and Mr. Đệ) were killed during the land reform campaign because it was said they had murdered Việt Minh cadres during the resistance. The remaining landlords were considered to have exploited poor and landless peasants' labor, but were reportedly not brutal or tyrants.

Land reform cadres told the peasants what to do and made decisions for them. All landlords and rich and middle peasants had to return their land to the commune if they had more than five *sào*/head. According to key informants, all poor villagers were encouraged by the land reform team to claim at the village meetings more land than they actually had. The reasons were twofold. First, no one would measure villagers' land. Second, landless and poor peasants were told that they would receive more land later if everyone claimed more than his or her actual area of land. However, in 1956, when the "Rectification of errors" (*sửa sai*) was implemented, everyone had to claim exactly the area of land he or she actually had and was working. Everyone was then equally allocated five *sào* of land. Poor and landless peasants were provided loans to buy cattle and buffalo, as well as seeds to plow rice fields and transplant rice. Consequently, production relationships in the village underwent very important changes. The land reform changed completely the land ownership structure and social structure of the village.

The poor had hoped the land reform team would be on the peasants' side to help them wipe out the rural petty bourgeois and return the land to them. But in reality, the land reform team also caused chaos in the commune. Since they were not from the commune, they did not really know which villagers had worked for the French as active supporters and which had worked for the Việt Minh. Consequently, some of those who worked for the Việt Minh and were Việt Minh's supporters became innocent victims. Many mistakes were made during the land reform campaign: Local land reform cadres were not well trained, and no cadre was fully aware of the inherent complications of the land reform, leading to a number of Party members and simple farmers being wrongly classified as rich peasants and landlords, which affected the villagers' trust in the government. Some Party members were wrongly arrested, along with cadres from rich peasant families, accused of associating with the landlords, and asked to leave their positions. A number of households which had reclaimed abandoned land before 1954 were also labelled as landlords, when, as a matter of fact, they tilled their land themselves, and after land reform rectification they were reclassified as middle peasants. Some villagers were even denounced by their daughters-in-law or other relatives, although, in reality, they were servants or had to sell their labor to landlords to survive. Women were very active in both public denunciations and the Land Reform Tribunal because they had been the victims of cruel landlords (Turley 1972). The situation was so confused that some villagers were even given the impression that the land reform team might be anti-government since they were creating so much strife in the villages. The atmosphere was very

tense in the entire commune. Because they were afraid of being associated with the wrong people, even some brothers from the same family no longer dared to visit, and some people did not dare to greet each other when they met in the commune.

Elders later also said that if there had had no "Rectification of errors" campaign in 1956, more key officials and innocent villagers might have been killed. In mid-1956, the reform team was dissolved and a new land reform committee was formed. Party members and peasants who were innocent victims of the previous campaign were released to resume their former lives, and villagers' belief in the national revolution had to be gradually rebuilt and strengthened. The "Rectification of errors" campaign was carried out carefully and ended successfully, thereby avoiding revenge from innocent victims' for the former land reform committee's serious mistakes. Consequently, solidarity among people was restored, and rural areas stabilized with increased production.

After Giao Đồng Lạc completed the "Rectification of errors" campaign, Giao Thủy district reformed its institutional structure, and a number of communes were reorganized and renamed. A new Giao Lạc commune was formally established on October 20, 1956, with 14 villages at the time, and the name Giao Lạc has been kept since then. For the first time since the commune was established in 1843, everyone has been equally allocated land which dramatically changed production relationships in the commune. It was reported, nevertheless, that landlords and rich peasants still hid their gold elsewhere so that they could later invest it in their children's education. With a higher level of education, their children might then hold high positions in the government. This, in turn, more firmly established their superior standing within the village economy and in the years to come further differentiated them from the other social groups who owned only land.

3.4 From Mutual Aid Team to High-Level Cooperatives (1956–1975)

The cooperativization of agriculture was seen as the next potential means to achieve the goal of national development in North Vietnam. Early phases toward cooperativization focused on the organization of "work exchange teams" (*đổi công*), in which small groups and villages would pool their labor for certain activities. This was quite reasonable and acceptable to most peasants, who were used to exchanging labor with relatives or neighbors. According to key informants, mutual aid teams in Giao Lạc were set up by the end of 1956, and the majority of farmers voluntarily participated in the mutual aid teams. An average of five or seven households formed a team, with a maximum of ten households, as experience showed that teams with more members were more difficult to run. Members of the team agreed upon the team's rules to help each other, and integrated production was encouraged through participation in seasonal or permanent work teams.

Seasonal teams performed many collective tasks, such as planting, harvesting rice, and land preparation, and continued from one season to the next during peak labor periods. There was no other payment other than exchange of labor for participation in seasonal teams. In this way, everyone in the team would contribute and benefit more or less equally. Permanent teams were a more advanced form of labor exchange based on work points according to workdays performed. Farming families worked on their own land but were also members of a year-round team, such as the fertilizer team or the pesticide-spray team. Its members would assess each participant's work and award "work points" to keep track of what each had done. This form was the basis for founding the later cooperatives. Although the two forms of mutual aid teams existed at that time, the first was more common than the second. Mr. Đào recalled:

> I was recruited as the head of a mutual aid team. Those who joined the mutual aid teams were the ones who had been allocated land during the land reform. When we joined the mutual aid teams, we were still owners of our land. We were therefore responsible for our crops and final production outcomes. Hence, agricultural production was higher than the previous period, although it was not as high as it is nowadays. We were happy with mutual aid teams, as it was based on the principle of voluntary management. Households that were on friendly terms could form a mutual aid team together. Each village had several teams. The mutual aid team had a leader and a vice-leader, who also served as a secretary. Although mutual aid teams were voluntary, they were under leadership of the Party. The head of the team was a Party cadre and responsible for overseeing productive activities, including labour force arrangements. The vice-leader/secretary recorded work points earned by members, taking into account whether the work done was light or heavy to ensure work points were earned and recorded in an equitable manner.

At the commune level, the Farmers Association was also established, which was responsible for rice paddy and farmer management through the mutual aid teams. The Executive Committee of the association was under the Giao Lạc Communist Party Cell, and the secretary of the Farmers Association had to be a cadre of the cell. The Farmers Association activists organized education and training sections to teach villagers the advantages of work exchange for overcoming shortages of equipment and water buffaloes. According to elders, mutual aid teams were much better than cooperatives, and the way farmers managed their rice paddies was similar to the how it is done today. Mrs. Ngự recounted her experience during the era of mutual aid teams:

> The Farmers Association announced that those who participated in the mutual aid team and converted new land into rice paddies would not have to pay taxes to the state for five years. If one converted wasteland into rice fields, he or she would not have to pay taxes for three years. In fact, the commune cadres let us not pay taxes for only one year. Many households that did not have many members still had to pay a great deal for taxes. At this time only local varieties were grown and yields were therefore very low. Each sào could produce only less than 100 kg of paddy, 45 percent of which was paid for taxes. The purpose of heavy taxes was to force those households, which had more rice paddies to share with those who had less or did not have paddies, to cultivate. Not until 1957 did the government change the agricultural tax policy to 25 percent. At that time, we had to pay only agricultural tax. Our life was therefore much better than during the [later] time of the high-level cooperative, although the tax burden was heavy. Our life was miserable during the collectivization.

Despite the poor and underdeveloped conditions in the period after the liberation war against the French, these mutual aid teams changed production relationships within the commune, resulting in successful expansion of agricultural development. However, this stage was rather short because the shift to formal agricultural cooperatives began in 1958 with much less successful results (Cuc 1995). This shift to cooperatives was to complicate the development of production relationships and the labor force in Giao Lạc.

3.4.1 Low-Level Cooperatives (Hợp tác xã cấp thấp) (1958–1960)

The first cooperative in the region was established in Yên Tiến, Hải Hậu district, and in 1958, Giao Lạc sent several people to this site to participate in a training workshop on cooperativization. Then, cadres from the district and commune came to Giao Lạc to mobilize villagers to join a cooperative, where poor peasants were recruited as early participants. Early in 1959, the first cooperative, named Lạc Hồng, was experimentally established in Giao Lạc, but only a few villages that were home to Party cadres were selected to join the cooperative. The Party members were to be at the forefront, leading people to better lives so that the rest of the villagers would voluntarily follow. An Executive Committee of the cooperative and its leaders—a chairman, a vice-chairman, an accountant, a treasurer, and a secretary—were elected and assigned to supervise the management of the cooperative. A mutual aid team then became a production brigade for the cooperative. Mrs. Ngự recounted her experience as a member of the low-level cooperative:

> We had to contribute what we had, and everyone was forced to contribute. These included land, draft animals, and all other means of production, such as water buffaloes, oxen, ploughs, rakes, and labour. A number of villagers contributed half a water buffalo and stones, which were used to thresh the paddy. We then worked together to farm, raise stock, and produce other things. The red book that we had received after the land reform was returned to the village.

The amount each member worked for 1 day was measured in points. Male members received ten points, while female members received eight points. In principle, cooperative members and the secretary of the production brigade kept records of work points. After each harvest, and after a portion was set aside to pay for the use of members' land and for production funds, members received a share of the crop according to the work points they had accumulated. On average, members received 7–8-kg paddy/workday.

During the low-level cooperative time, individual land ownership was not eliminated, although the farmers pooled their land and tools to farm in common. Those households that had contributed paddy fields would receive a payment from the cooperative for the use of the land. Water buffaloes were also pooled. A water buffalo, which was worth VND 500–600 (in the currency of the time), would be paid

VND 30 in cash.[2] The rest of the rent for the buffalo was paid in paddy later on. Mrs. Ngự recalled:

> We had three water buffaloes, including one junior [young adult] and two calves. We were forced to contribute to the co-operative. After that, the co-operative allocated us only straw and gave us work points for tending and feeding the buffalo. There was nothing more. If the junior buffalo ploughed paddy fields for one day, we received 15–20 work points. There were cases where the co-operative paid the households that had contributed buffaloes, dozens of kg paddy/crop (6 months) for two years. After that our buffaloes became the common property. That means the cooperative owned the buffaloes.

Based on the information provided by key informants, the low-level cooperative was the "golden era" of the cooperativization program (Cuc 1995: 70; Ngo 1993: 166; Kerkvliet 1995: 402). Although this stage was brief, cooperative members' livelihoods improved greatly. Shares of the crop according to the number of workdays during the low-level cooperative period were much higher than later high-level cooperatives. Besides Lạc Hồng, other new low-level cooperatives in the commune were also established.[3] The size of cooperatives varied from a few to several dozen households; usually an existing village or several villages together formed a cooperative, and in each, an Executive Committee was set up. Credit cooperatives and sales and purchasing cooperatives were also formed in the commune. At the beginning, the credit cooperative did not have any capital sources to work with, so each member was mobilized to contribute VND 3 as the deposit. The annual interest one earned from the credit cooperative for the VND 3 was very low and was not paid in cash but in kind, such as several boxes of matches. By 1962, these cooperatives had enough capital to engage in trading activities and had several shops, which served as department stores.

3.4.2 High-Level Cooperatives (Hợp tác xã cấp Cao) (1960–1989)

In Giao Lạc, approximately 100 households (40% of the commune's total population) participated in the cooperative, primarily recruited from poor peasants, while the 60% who did not join believed that joining the cooperative would not improve their economic situation. The poor saw the cooperative as a means of safeguarding themselves against natural disasters and increasing their income in the future, enabling them to escape poverty and begin to prosper. Not surprisingly, the rich and middle households, owning several head of livestock, were more reluctant to join the cooperative and see their animals become common property. One Catholic farmer remembered:

[2] One could buy 2.5–3.0 tons of paddy with VND 500–600 at the time.

[3] The first included Lạc Thanh, Lạc Hưng, Lạc Long, Lạc Tiên, Lạc Tiến, Lạc Thắng, and Lạc Cường.

> We did not want to join the cooperative, because we did not know if we would have enough to eat, and if the co-operative could provide our basic needs and improve our living conditions. We just wanted to manage our family farms, which we had been used to doing. We were not used to working in large teams with the work point system.

District and village cadres had to try to mobilize the rest of the villagers to join, and this task faced substantial difficulties, Mrs. Phú, a Party cadre, recalled:

> We, the cadres, had to go to each household to talk with the head of the household about the importance and benefits of being a member of the cooperative. Many households did not let us come into their home. Thus, we had to sleep on the doorstep, although it was during the wintertime and the temperature went down below 10 °C. There were cases where the whole village did not join the cooperative. These cases involved Catholics who were convinced by local opposition forces that entering the cooperatives, thus showing a passion for the Communist Party, meant they were not loyal to God. As a result, they would not be Catholic anymore.

In 1959–1960, due to poor harvests, many villagers left the experimental cooperatives. The main reason given for the poor harvests was the weak management skills of cooperative cadres, and it seemed that the low-level cooperatives would collapse. At the beginning of 1960, district and commune cadres once more attempted to mobilize the rest of the village to join the cooperatives. However, only 70–80% of households participated in the cooperative by the end. The local cadre Mrs. Phú recounted this period:

> All villagers were forced to enter the cooperatives against their wishes at the time. Although trained, cadres did not have any experience rousing people to be enthusiastic about cooperatives. More importantly they did not understand that the success of the cooperation should be based on the principle of voluntary participation. In addition, many cooperatives in the commune were not built on the foundation of labour exchange groups using work points as the Central Committee directed in December 1959. In such cases, peasants did not have experience in working with exchange teams before they were pressed to enter a cooperative. Having skipped these steps made the foundations of the cooperatives precarious.

By 1962, the cooperativization of Giao Lạc was completed, and individual ownership of land and assets eliminated. All rice paddies and draft animals, oxen, and other means of production were owned and used by the cooperative. Payments that individuals received from the cooperative in the previous period for these assets were no longer made.

One major advantage of cooperativization in the Red River Delta was the ability to manage lands on a larger scale, particularly in irrigation investments. Before land reform and cooperativization in Giao Lạc, irrigation was uncommon with only one autumn crop grown, and the spring crop was not grown in rice fields close to the dike due to seepage of saline water under the dike. Some rice fields had belonged to landlords who did not allow any irrigation systems to cross their land. When collective property rights over land were achieved, it was much easier to organize land and labor for irrigation systems. New varieties of rice were also introduced into production. All of this allowed double cropping in all rice fields, including those located adjacent to the dike, with significant increases in annual production. However, per-hectare rice yields continued to be very low. Villagers recalled that cooperative

cadres did not have good management skills and expertise in farming systems or pest control, leading to low productivity. The spring crop harvest was only 700–800 kg/*mẫu*, while the autumn crop was 1000 kg/*mẫu*.

After each harvest, a portion was set aside for taxes, production costs, and social security expenses. The rest of the crop was divided among cooperative members according to the number of workdays each had performed, a system called the "workday contract" (*khoán công*). For one workday, men earned twelve points and women ten. This was equivalent to 1.5–2.0-kg paddy/workday, which was less than during the previous low-level cooperative time. In principle, both cooperative members and the secretary of the production brigade were supposed to have kept records of work points. But not until 1989 did members find out that their work points had not been correctly recorded. The heads of the villages and close relatives and friends of the heads of the production brigades always received more points than others.

During this period of cooperativization, a supplementary family economy (*kinh tế phụ gia đình*) coexisted, as households were allowed to retain 5% of the cultivable land in the village for family subsistence (Truong 1987: 58). The 5% of land allocated to each member who joined the cooperative in Giao Lạc was 2 *miếng* (72 m^2). In some areas, this private household plot was used for gardening and animal husbandry (Luong 1992: 197; Wiegersma 1988: 152), but in Giao Lạc, the 5% plots were rice lands, which were used to grow vegetables and rice. But since villagers did not have fertilizers and pesticides to apply to their rice plots, their paddy yields were not much higher than that of the cooperative. Many authors who have written about collectivization in North Vietnam share the view that private plots, which accounted for only 5% of the cultivated land, actually provided 60–70% of cooperative members' total income, while cooperatives used 95% of the cultivated land and almost all the working time of cooperative members, but provided only 30–40% of income (Pham et al. 1999: 8; Wiegersma 1988: 148). However, although private plot holdings in Giao Lạc were larger compared with those elsewhere in North Vietnam, they did not play a very important role in the household economy in this area. What did play a role, as will be explained below, were the nearby mangrove forests.

Cooperative members began to be aware of the failures of the higher-level cooperatives. A former district cadre, Mr. Bong, elaborated some of the reasons for production stagnation in the cooperatives:

> The new production relations were not stable and cooperative cadres' management skills were weak. The core of co-operative cadres was underqualified and failed to meet the requirements of management. There was neither a specific policy for, nor planning for production, which resulted in late harrowing of paddy fields and transplanting of rice. Financial management was not transparent. Production costs were high. Corruption and waste of natural resources occurred in high-level cooperatives. Villagers were pressed and forced to join co-operatives. Furthermore, they had been used to the small family unit and were not used to working in large teams with the work point system. Many who left the cooperatives were not given their rice paddies back.

3.4.3 The Cooperative During Wartime

In 1965, the United States expanded the war to the north of Vietnam, resulting in the government putting the whole economy on a war footing (Ngo 1993: 166). During this period, collectivization was further strengthened and improved in the north, although collectivized agriculture faced new challenges and difficulties. In the countryside, village-level cooperatives were consolidated into commune-level cooperatives. That meant a cooperative required the whole population of a commune to provide necessary human and material resources, such as pork and rice, for the war effort. However, contradictions within the agricultural cooperative model drove agriculture in the north into a recession and crisis period, especially during 1966–1975 (Cuc 1995: 76).

In Giao Lạc, all production activities were changed to adapt to wartime conditions. Giao Thủy and Xuân Trường were unified into one district, which was called Xuân Thủy in 1968.[4] In Giao Lạc, all cooperatives were unified into three—Lạc Hồng, Lạc Long, and Đại Đồng—in 1968. Paddy fields were reshaped, new irrigation systems were constructed, and new rice varieties were introduced. Warehouses, paddy-drying yards, cattle pens and pigpens, schools, health stations, and kindergartens were built for the cooperatives. Animal husbandry was not encouraged at the household level so the village set aside 10% of its agricultural land, approximately 3 ha, for collective animal husbandry, and each cooperative raised several hundred pigs. During these years, the state came to the village several times to buy pigs to support the war effort, and each time the cooperatives sold several tons of live pigs to the state. Improvements in management brought about changes in the division of labor as well. The workday point system was abolished, and, instead, the three-contract system (*ba khoán*) was established. This consisted of a product contract, a production-cost contract, and a piecework contract. The cooperative then became the overall management unit, and the production brigade became a product contractor with the cooperative (Ngo 1993).

Villagers recounted that the war caused both difficulties and positive changes in agricultural production. On the one hand, high-level cooperatives had to channel human and material resources to the war effort, resulting in disruption and a decrease in labor. On the other hand, collectivized agriculture proved in ways to be suitable for wartime because centrally planned management and organization allowed the cooperatives to channel their human resources more effectively for the war effort. Other home-front policies, such as selling paddy at the distribution price to those households which had sons or husbands in the army, pleased both those who joined the army and those they left at home. In addition, the war revitalized the powerful traditions of the Vietnamese village. The cooperative helped nourish and bring into play the village's solidarity, reciprocity, and mutual help that had existed for

[4] Not until March 1997 were the two districts divided into two, reverting to Giao Thủy and Xuân Trường as they had been during the French time.

generations. These positive factors helped repair mistakes made in the initial collectivization movement in the 1950s.

Although the war raged mostly south of the 17th parallel, the village established an artillery (antiaircraft) platoon in 1960. It was based on the central dike to fight against the American air war, prevent any acts of sabotage from the South China Sea (in Vietnamese the "East Sea"), and guarantee security and order in the coastal area. Village elders recalled that American forces bombed the commune between 1967 and 1968. Two houses were burned down, and another two collapsed; two people were killed and several others were injured. Mangrove trees in the forests were also heavily damaged by large craters, which were later filled in by the sand brought in by the waves.

During the war, the majority of young men who were Buddhists joined the army, leaving the women and children and a majority of the Catholic sons at home. Elsewhere in North Vietnam, Catholics were often refused admission to the army since they were regarded as potential fifth columnists.[5] By dodging conscription, many Catholic families were able to become better off, which resulted in resentment between the Catholics and the Buddhists even today. Mr. Tính recounted his experience as the former deputy head of the commune militia:

> I was assigned to be the deputy head of the commune militia between 1964 and 1968. I was recruited to guard the mangrove forests and was in charge of fighting against the Americans. The majority of young Catholic men dodged the draft. They stayed in the commune and were engaged in collecting marine products. They were never hiding at home. At night, they went to the forests to collect marine products. Therefore, it was very difficult for us to arrest them. Mr. Rổ, the head of the commune militia asked us to keep an eye on those who dodged the draft and to arrest them if possible. Once, I mobilized 4 militiamen to chase these young men in the forests. We then lost them, because the forests from Giao Thiện to Giao Lạc and Giao Lâm were very thick.

In fact, two women in Giao Lạc have recently been granted the Vietnam Heroes' Mothers, one of whom was a Catholic (Tran 2000: 8). In addition, dozens of Catholic families were acknowledged families of war dead and disabled veterans (ibid.). This indicates that many young Catholic men did join the army during the Vietnam–US war, although the number was smaller (almost 200) compared with the Buddhists.

3.4.4 Troubles in the Cooperatives (1968–1975)

Starting in 1968, American bombing of North Vietnam temporarily ceased, and cadres were able to turn back to the emerging production problems in collectivized agriculture. The three-contract system no longer worked well, as no one in the commune knew how much they would be paid. The cooperative usually set aside

[5] Later, they were allowed to do so. It was also not the case in Giao Lạc, where many Catholics were granted admission. About 200 young Catholic men did join the army during the Vietnam–US war, although this was less than the Buddhist families.

certain amounts of paddy for the social security and reserve funds and provided extra support for families with labor shortages who could not earn enough work points to feed themselves. The rest went to members for their labor. On average, for 1 day, a worker might receive 10–15 work points, for which he or she might receive more than 1-kg paddy or only 0.5–0.6-kg paddy, depending on the year. Mrs. Cẩn recalled:

> At the time we earned a great deal of work points, but received little paddy. On average for 1000 work points a couple would receive 80 kg dry paddy. For one crop, if we earned several thousand work points, we would receive one or two hundred kg paddy. The cooperatives also helped those households, which did not have sufficient labour and as a result did not earn enough work points to support themselves.

At the beginning of 1971, the 19th plenum of the Communist Party reviewed the positive as well as the weak features of the cooperativization movement and developed a plan to improve agricultural production for large-scale socialist agriculture (Chu et al. 1992: 30). The directive stated that new economic zones should be opened up, and animal husbandry should be developed as a primary agricultural sector. In Giao Lạc, the three remaining cooperatives, Lạc Hồng, Lạc Long, and Đại Đồng, were combined into one in 1973, called Giao Lạc Cooperative. It included the entire commune population, around 4000 people, with an area of 744 ha, of which about 500 ha was agricultural land. Labor was reorganized into basic production and specialized brigades. These brigades included nursery, irrigation, plowing, manuring, soil preparation, animal husbandry, and fishing, among others, with all cooperative activities carried out according to a fixed schedule. But the scheduling did not help to increase production. For example, during this period, it usually took the villagers 2 months to finish harvesting the rice (in comparison, currently it takes only 1 or 2 weeks due to the use of mechanical threshers). After harvesting the rice, cooperative members would pile bundles of rice in the paddy-drying yards and did not thresh until harvesting of all paddy fields was completed. By the time workers started threshing the rice, the piled-up rice had already begun to sprout, while many workers went hungry.

3.4.4.1 Villagers' Resistance

Villagers always found ways to resist the government's policy on collectivization (White 1986; Ngo 1993: 169–70; Tran 1994: 93; Kerkvliet 1995: 402). In Giao Lạc, villagers' discontent focused on two points. First, villagers had weak incentives to work. The system of work brigades was based on the duration of the work rather than on the quality or quantity of the work performed. As a result, people usually arrived at work late, and no one worked hard. The work-point standard (*rong công phóng điểm*) was used very loosely by the cooperative. Food was distributed by ration imposed by the government, thus violating the principle of distribution by work done. Members ended up earning very little from the cooperative, with earnings so low that they found it very difficult to survive, because one could earn only

0.3–0.5-kg paddy/workday. Mrs. Lưu recounted her experience as a cooperative member during the era of high-level cooperatives:

> At the time we used grass rakes with long handles to remove weeds. We women and girls were hired to work by the piece by the cooperative, so we did it very quickly. Most of the time, we removed weeds once and never did it again. Transplanting and harvesting rice took us months to finish because we always started working at 8.30–9:00 in the morning and went home at 11:00. In the afternoon we left for the field at 2:00 and by the time we arrived at the field it was already 3:00 and we went home at 5:00. We never did a good job. We were also supposed to carry manure that the cooperative purchased from individual households to paddy fields. If we were to carry 3 tons of manure, by the time we reached the fields we had only 1.5–2.0 tons left. We either left one ton with the host or threw part of it into bushes on the way to the fields when the head of the brigade or the guards were not around.

Although they had to work more than 300 days/year, cooperative members received insufficient rice to feed their families. Their survival strategy was to work less on the cooperative's rice paddies and more on their private plot or on better paying outside jobs.

Furthermore, because paddy fields, buffaloes, and all other means of production belonged to the cooperatives, members did not feel personal responsibility for the end products. Thus, rice yields were low and cooperative members' income decreased. Other specialized brigades were given responsibilities for specific tasks but not the final product, so they had low incentives to perform their job properly. For example, in fishing brigades, fishermen had to turn their catch over to the cooperative so that they would earn work points like those who worked in paddy fields. Yet due to poor oversight and management, fishermen did not turn in all that they had caught to the cooperative. Due to this corruption, the cooperative ended up losing the capital resources that it had invested in fishing boats and nets. All of this undermined villagers' trust in the Party Cell and the commune leadership, when many had originally believed that collective farming would enable them to escape poverty and begin to prosper.

A second criticism was the inefficient, corrupt village cadres. According to former cadres, the three-contract system was criticized, and production brigades established their own cash and paddy funds. This meant that corruption occurred not only at the cooperative level but also at the production brigade level. For example, if one gave the leader of the brigade a meal, the briber could earn 100 work points/night for pulling up rice seedlings. Mr. Đạt recalled his own experience as a cooperative member:

> We were assigned to be on night shift. If we were on night shift, we could earn more work points than working during the days. It was not surprising that many of those who were assigned to work at night were relatives and good friends of the head of brigades. When we worked at night the secretary of the brigade was supposed to cook chicken soup for us. Nevertheless, he only cooked the bones of the chickens, and he and his family ate all the meat. In addition, people on the night shift were supposed to earn paddy, which was equivalent to VND 100,000 for the food and compensation for working at night. In fact, we received only VND 80,000 and the cadres ate VND 20,000. Village cadres had bicycles and radios, while genuine farmers had problems making ends meet. So, we worked as though we were playing.

The majority of villagers were hungry due to low rice production, and alternative foods, like taros, were not available either. As a result, hungry villagers had to eat wild vegetables as a replacement for rice. Villagers also stole paddy from the cooperative, stating that "necessity knows no law (*đói ăn vụng*, *túng làm càn*)" (for the same situation in another location, see Kleinen 1999a, b: 124). Villagers also stole fertilizers to apply to their 5% plots because according to them commune cadres were no better:

> Genuine farmers like us would never be able to have some nitrogen fertilizer. We sometimes stole nitrogen fertilizer that had been applied to rush fields by the cooperative. The cooperative applied the fertilizer to the rush fields during the day, and at night we went there to shovel the fertilizer and bring it home. We had an excuse that village cadres took the cooperative's fertilizer and so did we. Both men and women were involved in stealing the cooperative's fertilizer. However, everyone was afraid to be caught by the head of the brigade.

3.4.5 Mangrove Forests and the Market

Like the agricultural cooperatives, mangrove management also shifted from 1954 to the early 1970s. During the era of mutual aid teams in the late 1950s, the mangrove forests belonged to Giao Lạc, and the commune assigned Mr. Vào to guard the Kai Sinh water gate and the mangroves. Unlike Mr. Kai Sinh, who was paid by the French, Mr. Vào was not paid by the commune. Instead, in return for his services, he had the right to put gill and grape nets in the forests to catch marine products and had an incentive to protect them. In addition, he was not obliged to participate in dike construction and maintenance. Villagers still went to the forests to collect firewood, bivalves, and crabs and to catch fish. Although Mr. Vào was guarding the forests, no one asked him for permission as they had done during the French time, and he did not arrest anyone. Women still collected dry branches for firewood, which was used both for domestic purposes and for sale at the local market to buy rice for prices and markets similar to before the war. Men were engaged in marine product collection; Catholic men tended to have the boats and were said to be more skillful at marine fishing than Buddhist men because the Catholics had arrived at the commune earlier. The majority of Buddhists did not know how to use a boat to catch shrimp and fish and instead usually used rakes to dig bivalves and put bamboo baskets in the canals and the forests to catch fish and collect shrimp and crabs. They ended up earning much less than many Catholics, thus depending more on the cooperative. Although everyone went freely to the forests to collect firewood and other marine products, no destruction of mangroves was observed at the time. This can be explained by the fact that the commune supported a population of only 4000 people, and there was consequently less pressure put on the resources and no commercial exploitation.

After collectivization in the early 1960s, in principle, the Commune People's Committee (operating on behalf of the district) managed the mangroves, primarily

to protect the dike, and the commune's militia unit was mandated to protect them, while preserving peace and order in the coastal area. Mr. Võ, whose family member was a soldier, was assigned by the commune to guard the Kai Sinh water gate and the mangroves in 1960 after Mr. Vào died, and Mr. Võ served in this position until 1997. Unlike Mr. Vào, Mr. Võ was paid directly by the district with 300-kg paddy per season.

Villagers recalled that the mangrove forests were still thick at the time, except for places that had been damaged during the Vietnam–US war. Mangrove trees were then about 4 m tall, and almost all villagers depended heavily on the mangroves for their livelihoods. According to elders, if they had not had the mangrove forests, they would have died during the collective era. For example, villagers collected *cáy* and *còng*, as they had for years previously.[6] *Còng* was used to make soup, which was said to be delicious and healthy, and *cáy* was used to make fish sauce. In addition, villagers also fished, caught sea eels, and collected shrimp. They usually went fishing at night, by putting grape nets in the forests at 6:00 in the evening and collecting them at 3:00 in the morning. All produce was used for home consumption and sale at the local Đại Đồng and Thanh Nhang markets to earn extra income to buy rice and cover many other basic necessities that the cooperative did not provide.

Fuelwood collection was another source of supplemental income. If one spent the entire morning in the mangroves, he or she could collect 15–20 kg of firewood, for which one could earn VND 600, enough to buy 2 kg of rice. Firewood collectors usually went to the forests during the day. If they went at night, they would have to put either mud or kerosene on their face and body in order to repel the armies of mosquitoes. There were also plenty of waterbirds in the mangrove forests, where they made nests and laid their eggs. In the forests, there were many heavily entangled wild vines, making it very difficult for collectors to move back and forth, and to collect bird eggs, collectors had to climb from one mangrove tree to another. If one spent 1 h in the mangroves, he or she could collect a full 2-liter water container of bird eggs. Collectors said that they did not sell the eggs but boiled them at home as a substitute for rice. There were also plenty of rats, which built huge nests in the mangrove trees. It was said that the nests were so large that at first glance they could be mistaken for human beings.

3.4.5.1 Breakdown of the Commons' Management

Locals date the 1960s as the time that a "tragedy of the commons" situation arose, when traditional conservation measures were pushed aside. The Commune People's Committee did not allow villagers to cut mangrove trees for firewood, although they were allowed to freely collect dry branches, fish, crabs, and other intertidal coastal products. They were told to protect the mangroves to protect the dike which would protect their property. They were also told to devote their labor to the cooperatives,

[6] *Cáy* and *còng* are in the crab family.

not to the supplemental income earned from mangroves. However, during the rice harvesting and transplanting seasons, no one was allowed to go to the forests, and members of the militia unit stopped those who went to the mangroves "illegally," as they said, and confiscated "violators'" firewood, the knives used to cut it, shrimp, crab, and fish. Violators were asked to sign a report of the violation and also to go to the commune office for "*giáo dục*" (education). It was reported that members of the militia unit sold the firewood they had confiscated from collectors and kept the money for themselves. The money was usually spent on food and drink for commune cadres and members of the militia unit.

This shift away from common property management by the villagers themselves to an outside authority (the Commune People's Committee) without consultation, and without recompense, was a crucial shift in access and ownership. The government was now actually excluding the very people who knew best how to conserve the resources through their own conventions. The mangrove resources, which used to be theirs, had become property of outsiders, and ironically, the collectors were now accused of having stolen their own resources. This shift in the legality of mangrove use did not however dissuade the collectors; everyone continued to collect firewood and other products since the commune did not have enough guards for all the mangroves. Villagers hid their big knives used for cutting, and in response to restrictions on dry fuelwood, sometimes even cut big mangrove trees down, an activity that had not occurred before. Nevertheless, they did not dare to bring the freshly cut trees home right away or members of the militia unit might take their trees away, and they would have to pay a fine. Their survival strategy was therefore to leave the trees in the forests until they had dried, or they would wait until dark and bring the trees home. They carried the firewood to sell to rice and pancake makers in Đại Đồng at night, while Mr. Võ, commune cadres, and the guerrillas were sleeping, so that they would not get caught.

The shift in access had gender implication as well. It was reported that it was only men who engaged in cutting trees down since they were physically stronger than women and could bring big knives into the forests and fell trees. But firewood collection was traditionally a woman's job, and the majority of the women engaged in firewood collection had been from poorer Buddhist families since Catholics lived farther from the forests, and many Catholic women were involved in other more lucrative trading activities. These poor women collectors used to collect only dry branches, which had a minimal impact on mangrove ecology. Yet once they were excluded, men took over this job and cut the live green trees surreptitiously, leading to mangrove forest declines.

3.4.5.2 Commercialization of Mangrove Products

Tannin from the bark of mangroves was another product for which the postwar period saw commercial demand. Between 1959 and 1972, cooperative members were assigned to collect mangrove bark; the bark could be removed without killing the mangrove trees and was then dried and sold to the District Marine Product

Company, which was responsible for selling it to people in Nam Định. Tannin extracted from mangrove bark was used there by leather-processing companies and was also used for dyeing clothing and fishing nets. This commercial demand reduced local use of the bark, which had been used to dye local handmade clothing, because modern commercial dyes were not available.

During the cooperative period, the pressures on fish resources found in mangrove areas also increased considerably. Hundreds of people engaged in shrimp and fishing activities, using gill and grape nets and fishing boats. Those with boats established a fishing association, and they could catch 40–50 kg of wild shrimp/person/day, and more when the weather was favorable. For a full working day in the forests and the mudflats, a fisherman (mostly Catholic[7]) could earn as much as a man who worked a full working week for the cooperative (who were mostly Buddhist). Starting in 1958, commercial demand for mangrove products arrived in the form of the state Marine Product Company from the district, which came to the commune to purchase seafood from local collectors to make fish sauce that was then exported abroad. At that time, the company paid very low prices, while the market price for 1 kg of shrimp or fish was VND 2, the company paid them only VND 0.2/kg. Consequently, locals did not want to sell their products to the company and would try to sell their catch to outside traders. This was difficult, however, as they had to hide their activities from the company's cadres who tried to force collectors to sell their products to them. The company even asked the militia unit to seize produce and confiscate nets of those not selling to the government company. As a result, the majority of local collectors gave up fishing at this time. Although some former fishermen said that they themselves had invested a large amount of money in the boats and nets, they stated they would rather give up fishing than lose money by selling their catch to the company. Mr. Tính recounted his experience as the former deputy head of the village militia:

> I was assigned to arrest those who hid their products and sold them to outside traders, instead of the company. We had two people, Mr. Hòe and myself. Mr. Hòe was in charge of weighing the catch of collectors and the product record notebook. I would then submit the notebook to the cooperative, based on which the cooperative would give collectors work points and paddy accordingly. No one wanted to sell his catch to us. Later, the cooperative decided to build boats and assign 6–7 people to be responsible for a boat. I was then in charge of recording the number of boats and the number of people on each boat. However, they still hid their products in the forests. At night they went to the forests to collect them to sell to outside traders at much higher prices. If they caught 30 kg of shrimp, they sold 25 kg to the company and hid 5 kg in the forests and then sold to traders to earn cash. I now believe that if the company had purchased local fishermen's and collectors' catch at the market prices, they would not have given up their profession.

Between 1966 and 1975, the cooperative and the Marine Product Company managed shrimp and fish resources in the village, and no one else was allowed to catch

[7] The difference between the Catholics and Buddhists is deeply rooted in the more distant past, as far back as to the very founding of the commune. The majority of the first settlers in Giao Lạc were Catholics who were good at fishing compared to the Buddhists.

fish and shrimp in the rivers or canals. Those with no connections with village cadres were not allowed to put gill or grape nets in the river, and Mr. Văn was mandated by the district to stop villagers from catching any fish or shrimp. If he saw anyone doing so, he would confiscate their nets. However, he allowed his friends, relatives, and others with whom he had connections to do so, and they could sell their catch to the company at higher prices than the other villagers. Nevertheless, with fewer and fewer collectors and fishermen selling their catch to the company at such low prices, in 1975, the company withdrew from Giao Lạc.

3.4.5.3 Clearing Mangroves for Land

There were other pressures on the forests. In the early 1960s, the district sent its cadres to many places to locate a market for mangrove timber, but they had no luck since there was no demand at that time. The district then decided to launch an ocean reclamation policy to expand cultivable land and increase agricultural production. This required mangrove forests to be clear-cut and then converted into rush fields, as in the previous eras of reclamation. Giao An commune opened up Điện Biên pond first and Mr. Trần Văn Thuần, who was in charge of clearing the forests and constructing the pond, was nominated as a "hero of the ocean reclamation movement" (*Anh hùng quai đê lấn biển*). Giao Lạc commune then opened up its Biên Hòa pond, which had an area of more than 54 ha in 1962. To do this, the commune mobilized its entire population to clear the thick mangrove forests. Male inhabitants aged 18–50 and females aged 18–45 were required to cut mangrove trees and leave the mangrove roots in the pond, although the elders recalled that even some senior women aged 50 were also asked to participate. Each farmer had to work 30 days on reclamation, and they often had to stay in the water, sometimes up to their necks, for the whole day. Later, villagers were allowed to dig out the mangrove roots, which were used to cook the traditional square cakes for the Vietnamese New Year and were also sold to a number of brick and tile enterprises in Xuân Trường commune. Even though the commune eventually decided to construct a smaller pond than they had planned, it took much longer than they had expected to complete it in 1964. Rushes were then planted in the pond area. Each village was delegated to plant, care for, cut, split, and dry the rushes (*bổi*) and then deliver them to the cooperatives. Workers earned work points from the rush business just like those who worked on paddy fields. The cooperative then sold the rushes to the District Agricultural Product Company, who sold the rushes for roofing houses.

Unfortunately, since there were no longer forests to protect the pond's dikes, the dikes broke many times, sometimes with comical effect. Villagers might reconstruct dikes in the morning, but in the afternoon, when the tide came in, they would be broken again. At the time, there were no dredges or other machinery available, so all activities were done by hand.

In the late 1960s, there were still mangroves outside Biên Hòa pond, and the same policy to clear the mangroves was later applied to those areas. After those mangroves were cleared, seagrasses were planted.

Villagers recalled that this reclamation policy brought few benefits, while causing great losses to the villagers and destruction of the central dike, not to mention mangrove ecology. The national and local government prioritized producing rice to address rice shortages, resulting in many filled-in ponds and wetlands during this time. Fish and shrimp were no longer considered important and therefore not of high economic value to the cooperative, which was focused on rice.

However, in 1968, after damage to dikes and shores caused by typhoons, hurricanes, and the American military forces, the district requested the commune to assign its people to seriously protect the mangroves and stop those who cut mangrove trees down. In the same year, district cadres were sent to Giao Lạc to work with Mr. Võ to protect the forests. In principle, Mr. Võ and district cadres were not supposed to confiscate collectors' firewood but rather explain to the villagers the importance of the mangroves in protecting the dike and the coastal inhabitants' life, to prevent the collectors from cutting down the mangrove trees. Giao Lạc also mobilized people, including primary and middle school students, to replant mangrove trees for the 3 years from 1967 to 1969 to replace those that had been damaged during the Vietnam–US war and to expand the forested area. *Kandelia candel* fruits were locally collected and then transplanted to the open mudflats with the total area of newly planted mangroves some 60 ha. In 1972–1973, there were still mangrove forests outside Biên Hòa pond, but they were not as thick as they had been during the previous period because they had not been replanted since 1969 and villagers had continuously felled even the large trees for firewood.

3.5 The Postwar Period and the Reform Process (1976–1980)

In 1976, after the reunification of the country, instead of drawing lessons from previous failures, the Government of Vietnam continued to push cooperative consolidation in the north to achieve "large-scale socialist production" (Ngo 1993: 169), as clearly stipulated in the 5-year plan for 1976–1980. To develop a cooperative into an economic socialist unit, the district was to become a focal point of further improvements in production. All means of production, especially land, should be further collectivized, and conversion of wasteland into rice fields was encouraged (Tran 1994: 86–87; Chu et al. 1992: 36–40).

In Giao Lạc, land, draft animals, and all other means of production were highly collectivized. Labor was reorganized into specialized brigades, and the majority of young and healthy male members of the cooperative were assigned to these, which were under the management of the cooperative's Executive Committee and the district. Women, girls, and the old and weak people were transferred to the basic production brigades. Cooperative members worked under the three-contract system, including a product contract, a production-cost contract, and a piecework contract, from which they earned very little. Since the specialized brigades were given specific tasks and many steps removed from the final product, they had few incentives to coordinate their activities or perform their jobs more efficiently. Time delays,

careless soil preparation, and inadequate irrigation by the specialized brigades ultimately reduced the income levels of members in the basic production brigades.

The cooperative also replaced food distribution according to workdays with a system of payment in cash or in kind for labor. This not only further decreased income equality but also created resentment among members of the cooperative. During this period, for one workday, members earned only 0.2-kg paddy. For 4700 work points, one household could earn only 120-kg wet paddy, and the rest was paid by cash or by giving them a thermos as compensation. According to village elders, they had to sell the thermoses to buy rice. In cases where cooperative members received cash, they always received so little that they could not buy enough rice on the black market. In both cases, cooperative members ended up earning less paddy than they had even during wartime.

Between 1976 and 1980, on average, each person received 10-kg paddy/month, and the majority of the village's population was hungry. Within a couple of months after harvest, villagers frequently had only one meal a day, and eating twice a day was very unusual. Rice was sometimes not available on the black market, and villagers had to buy brown canna flour, considered worse than pig food, as a substitute for rice. Villagers were reduced to finding substitutions, such as eating bran and wild vegetables such as pennywort. Since everyone ate pennywort as a substitute for rice, it gradually became impossible to find where it had once been plentiful. Locals drank a lot of water so that they could have the feeling they were full, but it rarely worked since they still always felt hungry. Meat was a luxury; most ate pork only once or twice a year. Mrs. Lợi recounted her experience as a marine product collector to earn cash to save her family:

> Because the cooperative did not pay us paddy in time, we had to go to the forests to collect marine products and firewood. I put 60 bamboo baskets in the canals and the forests in the evening and as early as 3:00 in the morning I had to go to collect marine products. Sometimes I had to go at 2:00 in the morning. Otherwise, someone else would steal my catch. At times, I collected more than 300 fish, which together weighed only 3 kg. However, they were sold to buy only 0.4 kg rice or 2 tins of wheat or a tin of noodles. Since everyone collected marine products, there was insufficient demand for these products. Many times, I had to bring my catch home to make fish sauce. Consequently, we had no rice. I had to eat popcorn as a replacement for rice. Even when we had rice, we had to mix the rice with six other vegetables and fruits.

As Mrs. Lợi noted, during the worst of the late 1970s, villagers still went to the forests to collect firewood, crab, and shrimp and to catch fish to earn extra cash to buy either rice or noodles. A bundle of mangrove firewood could be sold to buy a kilogram of rice, and firewood now fetched better prices because fuelwood was harder to find in the degraded forests that had been reduced in size due to reclamation. Villagers usually put bamboo baskets in the canals and the forests to catch fish and crabs that were sold at the Đại Đồng and Thanh Nhang markets. Theft was a constant concern, and loss of catch was very common. But since there were many collectors, the demand for these products was not great. Most of the time, villagers had to bring their catch home to make fish sauce and would not be able to purchase rice or noodles to eat.

Poor decision making by leaders further reduced the mangrove forests. In 1978–1979, under the leadership of the district, the commune mobilized its cooperative members to clear the forests on the western side of the village to open up shrimp ponds and the mangrove forests there were all destroyed. Since there were no mangroves to protect the ponds' dikes, the dikes were broken at high tides, and shrimp and fish were lost.

3.6 The Reform Process (1981–1985)

Vietnam experienced a major economic crisis from 1979 to 1980, due in part to Western and Chinese aid cuts, made in response to Vietnam's military occupation of Cambodia in 1979 (Fforde and de Vylder 1988: 61–62). Part of the problem was that, even though rice production was very low and many cooperative members were hungry, the number of cooperative cadres was increasing. Villagers were angered by having to support many cadres who did little or no agricultural work but lived better than most of them (Kerkvliet 1995: 404). Bad weather compounded the problem and made it very difficult for the authorities to secure rice supplies (ibid.: 62). Consequently, right after the Chinese invasion of Vietnam's northern provinces in August 1979, the sixth plenum of the Party suggested that it was acceptable for state units to experiment to find ways to sharply increase rice output (ibid.).

The way districts managed agricultural cooperative production was often very rigid, with a top-down approach, and the Party Cell interfered heavily with the cooperative's management. Production costs were going up as profitability and production declined. Cooperative members' incomes were consequently further reduced, with the efficiency of the collective economy decreasing at an alarming rate. Cooperative members therefore worked less on the cooperative's production and more on their own household plots. In such a difficult situation, a form of contract, called the "sneaky contract," was applied to some land by some agricultural production cooperatives in Vĩnh Phú and Hải Phòng provinces. In 1977–1978, in Hải Phòng, beginning with one cooperative, several stages of rice production were turned over to individual households who were allowed to keep the remainder upon fulfilling quotas (Tran 1994: 101–102; Kerkvliet 1995: 407).[8] The results were impressive, and in 1980 Hải Phòng officials permitted all cooperatives to use this approach, which was later applied in Vĩnh Phú and other provinces (ibid.). It was supported by farmers and spread so quickly that, by spring of 1981, it was in common practice throughout the country (Le 1997: 115). This practice was called the "end-product contract" or "Contract 100" (*Khoán 100*), and shortly afterward the Communist Party of Vietnam legalized it on January 13, 1981. The new contract

[8] In the late 1960s, Kim Ngọc, the highest-ranking Communist Party official in Vĩnh Phú province, first introduced the household contract (Kerkvliet 1995: 407). Unfortunately, the timing at the end of the 1960s did not permit the household contract to be put to further experiment (Tran 1994: 93), and Mr. Kim Ngọc was later put in prison.

system was intended to promote production and improve economic efficiency by motivating farmers to produce in a committed and efficient manner (Cuc 1995: 85).

In fact, Contract 100 was based on the "three-contract system," which had existed since 1970. It transformed piecework done by production teams into product contracts given to farming households. That is, the cooperative still contracted specialized tasks (*khâu*), such as soil preparation, irrigation, fertilizer making, and insect and disease control, to specialized brigades, while allocating the basic tasks, such as planting, transplanting, application of fertilizers, and care of crops, to the basic brigades. Unlike before, payment was made to small groups of laborers on the basis of crop yields on specific plots of land contracted to them. The cultivated land of the village was divided among groups or individuals in proportion to the number of principal and supplemental workers. A production quota for each unit was fixed for a period of 2 or 3 years to guarantee stability, and crops had to be sold to the state at a fixed price (Ngo 1993: 174–75). In principle, those who exceeded their quotas kept 100% of the surplus for home consumption or for sale to private traders. The purpose of Contract 100 was to restore autonomy to the farmers in land and labor use and attach laborers to the land, thus encouraging farmers to pay more attention to final outputs (Cuc 1995: 85).

Despite improvements for some, Contract 100 only partly liberated peasants and did not stimulate them and their families to invest money, materials, and labor in intensive cultivation of the plots of land allocated to them because the policy did not stipulate that farming households could have long-term use rights (Tran and Nguyen 1995: 202). Under Contract 100, five production stages were still under the cooperative's control, which retained overall responsibility for production, not the household or the individual. The practice of prolonging the working time to earn more working points was very popular. Even though households did not have the right to manage their own economic activities, they had to contribute 70–80% of their products to the cooperative in the form of production output, taxes, and social funds. If they increased investment in planting rice to maximize their surpluses, the surpluses would be soaked up by increased contract quotas. Many villagers said they did not earn any surplus. Many families brought the subsidized fertilizers they had bought from the cooperative to the black market to sell to earn the difference to buy rice. Because they sold the fertilizers they should have used, the rice did not grow as well, and they did not contribute enough at the harvest and went into debt the next year. Consequently, the cooperative took away part or all of their contracted land.

3.6.1 New Commercial Pressures on Mangroves

Between 1978 and 1980, the Communist Party emphasized the importance of the conversion of wasteland into agricultural production in rural North Vietnam (Chu et al. 1992: 37–38). According to Giao Thủy district cadres, in 1982, the district of Xuân Thủy issued a resolution expressed in the form of a slogan, "the rush encroaches on the mangroves" (*Cói lấn vẹt*). Each commune was therefore

mandated to clear the mangrove forests to transplant rushes in an area about 100–200 m wide from the east to the west, as far as the East Sea. The district established a rush plantation and wasteland reclamation committee, and this committee managed all the mangrove forests that lay beyond the boundary of the commune. Between 1982 and 1986, rushes were planted and then harvested for weaving floor mats (*thảm*) for export to the former Soviet Union and eastern European countries through the District Import and Export Company.

Each village was delegated a plot of rushes to care for and was also responsible for the final product. When they were 2 years old, the rushes could be harvested, usually in September, when all the rush fields were in blossom, and with abundant sunshine enabling the villagers to dry the rushes before turning them into the cooperative. They cut the rushes, split them, dried them, and returned them to the cooperative to earn work points as they had in the case of rice production. Giao Lạc was the first commune in the area to start weaving *thảm*, as in 1983, the Giao Lạc *thảm* brigade was established. A drying room with ovens was constructed to dry *thảm* before the District's Import and Export Company cadres came to buy them. According to the former technicians, the technicians and the warehouse keepers had to work very hard to keep all *thảm* dry and in good shape before packing in the humid coastal area of Giao Lạc. Cooperative members were also allowed to take the rushes home to split and weave floor mats (*thảm*). This sideline profession created employment for children and the elderly, who could earn ten extra work points/day, thus generating additional income for the family. Dry and white rushes that were 1.2–1.5 m long were transported to the cooperative's warehouse and then sold to other villages for weaving mats, with the shortest ones sold to cooperative members for roofing material. However, the collapse of the Soviet Union led to a dramatic loss in the rush-weaving market in the late 1980s.

A new product needed to be found to replace the rushes, and the answer was shrimp. In 1985, Giao Thiện's People's Committee sent a delegation to Hải Phòng to study their aquaculture model for raising shrimp, crab, and seaweed to apply it locally on Ngạn Island. A year later, under the direction of the Giao Thiện Party Cell, villagers converted almost 100 ha of mangroves to aquaculture. Afterward, other communes, including Giao Lạc, came to learn the aquaculture of Giao Thiện and tried to apply it selectively in their areas. Shrimp began to spread throughout the province and would serve as an important driver of continued mangrove loss in the *Đổi mới* era.

3.6.2 Social Differentiation Outcomes

The time periods outlined in this chapter each contributed to social differentiation, albeit in different ways. Prior to this era, ownership of land, which was often linked to labor, status, and connections, influenced social differentiation. At the start of the collective era, in the late 1950s after land reform, for the first time ever, poor households held land tenure in the form of "red books" (*sổ đỏ*) and were able to produce

sufficient rice to feed their households. However, this era was short-lived because the land tenure books were handed back in as collectivization took hold in the 1960s.

Previously, poor households might have supported themselves using inter-household borrowing, pooling of resources, and arranging assistance and mutual obligations that were embedded in class and kinship relationships in the community. Gradually, these began to be replaced with state-welfare services in the cooperatives. After each harvest, a portion was set aside for taxes, sale to the state, the social security fund, and the reserve fund, and the small remainder was divided among cooperative members according to their labor. The cooperative provided extra support for families of war dead, disabled veterans, those who made substantial contributions to the revolution, and finally those who did not earn enough work points to feed themselves. Families of war dead and disabled veterans were given the first priority. They were subsidized 40–70% of their needed paddy, but there were cases where other families who did not earn enough work points due to labor shortages were not subsidized, although they were on the list. Although it is often said that during the cooperative period everyone was equally poor, this is unlikely. There were many families that did not have rice to eat in the commune, while there were households with sufficient rice. Those families who had rice were "policy families" (which were entitled to subsidies), commune cadres, and traders.

Yet access to land was equitable and the labor points earned by a person did not significantly differ from those of their workmates of similar age and gender. The main source of differentiation in living standards between neighboring households depended upon the number of laboring hands in each family and the number of dependents (Luong and Unger 1998; Sikor 1999, 2001a, b). Households with more laborers would earn more work points and therefore would receive the larger amount of paddy compared with those that with fewer laborers. Young couples were the poorest because their children were small and could not help them on the fields but still needed food. As the children grew, the household gained laborers, and its share of collective output increased.[9]

Income differences between neighbors also resulted from money earned from the differing returns from marine product collection and peddling goods. Access to political power played an important role as well, since only those with access to political power were allowed to work as peddlers. While 90% of the villagers had trouble making ends meet, some cadres could even save money for their children to use later. Former landlords and rich people were better off because they had invested the money they had saved during the French era for the education of their children. Their children were consequently able to achieve higher positions in the government, which in turn helped them improve their living standards in the commune. In addition, many Catholics were engaged in fishing, trade, and alcohol brewing, all of

[9]The family life cycle is a series of stages through which a family may pass over time. Typical stages in family development include the periods of a single young adult, a newly married couple, a family with young children, a family with adolescents, launching the children and a family in later life. The family life cycle emphasizes the effects of marriage, divorce, births and deaths on families, as well as changes in income, expenses and assets.

which helped them earn extra cash. It should be noted however that almost no Catholics held political positions in the commune, and they had less access to political power than the Buddhists because of Communist Party suspicions about their religion (Quigley 1968).

Because of the difficulty of working for the cooperative, villagers often tried to look for better paying outside jobs (Ngo 1993). To look for an outside job, one was required to present a letter from the commune's medical doctor stipulating illness and inability to work on paddy fields. A number of people sought the medical doctor's letter so they could look for a job elsewhere. Consequently, a number of households would leave one or two people working for the cooperative's agricultural production, with at least one person working elsewhere to earn extra income. These families became better off during the collectivization era, and it gave them a head start over their neighbors after de-collectivization. It was reported that only those who had access to political power got a letter. In addition, the doctor also demanded bribes for the letter. Mrs. Chọn in Village 7 recalled her experience as a peddler during the collective:

> I was rheumatic so that I could not work on rice fields. I obtained a letter from the village's physician, who said that I was not able to work in the paddy fields due to rheumatism in the early 1970s. As a result, I was placed on leave. At that time, I was in my 50s. However, there was a rumor that when the co-operative was gradually downgraded in the late 1980s, I was not ill anymore. People said that they had even seen me transplant rice in my own paddy fields. They did not know that not until the cooperative was dismantled did I go to hospital to cure my rheumatism. I took to peddling goods in Hanoi in 1972. At the beginning I followed a group of my friends to bring lemons, betel nuts, dried and cooked shrimp, which were the produce of my village, to Hanoi to sell. On the way back I brought cookies, sweets, and cigarettes to the commune and sold them to some traders here. I also had to pay VND 40/month for taxes. I had been doing that for 16 years. I stopped in 1988 after decollectivization. I became a peddler because my parents, who were from Thái Bình, used to be traders. People in Thái Bình were engaged in petty trade to earn their living that early, because there was too little land, while there were so many people. I learned how to do business from the age of 12.

Mrs. Chọn's story illustrates how villagers came up with survival strategies in the collectivized economy. There were differences in rich, middle-income, and poor people under the collectives. Although Luong and Unger (1998) argue that this has become common since family farming has returned to northern Vietnam, Giao Lạc shows that the same situation existed under the collectives. The success of some households appears to be due to a combination of individual drive, skills, household demography, and favorable connections with the commune's authorities (Luong and Unger 1998; Sikor 1999). In the cited case of Mrs. Chọn, she had market connections through her friends, skills, political connections, and capital sources from her parents. As her children grew up, they helped her husband raise chickens and pigs and collect marine produce from the mangroves. Because her family had more laborers than consumers, they were better off than other families. In short, due to non-farm income from trading, Mrs. Chọn's family gained surpluses compared with her neighbors during the collective era. Her family then started to accumulate assets,

which her son inherited, and his family was now one of the richest in the village in the contemporary era.

3.6.3 Role of Gender

During the Vietnam–US war between 1964 and 1975, the majority of young Buddhist men (except those who were sick or disabled) and some young Catholics joined the army. As a result, women were left at home to become the de facto household heads. They engaged in plowing rice fields, an activity that they had never done before when men were at home, in addition to pulling up rice seedlings and transplantation. They even carried rice seedlings and paddy with the shoulder pole, an activity they had never done before. Many young girls aged 18–20 in the village also volunteered to be Vanguard Youth Women or were trained to be nurses and were involved in other military support activities. Women also were recruited for political leadership, which had never happened before in the history of Giao Lạc.

Other studies have documented the rise of women's status and rights concurrent with the war (Turley 1972: 800; Woodside 1989: 290; White 1986: 47). Women could now take care of both public and family affairs, while engaged in labor production equal to that of men. The song "Women of Three Responsibilities" (*Phụ nữ ba đảm đang*) was composed at the time to praise those women. In the past, women had not been allowed to register as *đinh* and were therefore not allocated land, and so had been excluded from nearly all activities in the village, as well as formal education. In the 1960s, Mrs. Bông became the first woman in the village elected to be the secretary of the Giao Lạc Party Cell and later became the chairwoman of the village. In addition, other women were assigned to be the head of the Giao Lạc's Women's Union and heads of production brigades.

After the reunification of the country and demobilization, many men and women returned to the village from the south, although nearly a hundred never came back because they had died in the war. Women were expected to return the responsibility of the head of household to their returning husbands. However, the wartime mobilization of women and the change in their roles and status were difficult to roll back. Those who had been in leading positions in the village found they had greater equality with their husbands in the private sphere, which was sometimes shocking to the men who had just returned home. They even discussed and negotiated their roles at home with their husbands, which had never happened before. However, once men were given the opportunity for leadership, they pressured women to step down. Men were afraid that they would lose their dominance in their homes if they did not block women's leadership, supporting a return to patriarchal values within a patriarchal rural society. It was believed that the longer women stayed in leadership positions formerly held by men, the more likely they would retain their positions when the men returned home (Eisen 1984: 253). Unfortunately, Mrs. Bông and several others were the only women to have been in leadership positions. Since the war ended, no

woman has been promoted to leadership in the village, except the head of the Women's Union who happened to be a woman veteran.

Women continued to seek ways to supplement family incomes and particularly in making a living collecting firewood and marine products. Since they were not allowed to go to the forests to collect firewood as in the previous period, they had to change their practices. They carried firewood on their heads at night illegally; otherwise, members of the militia unit would confiscate the firewood. Most of the time, it was women who placed bamboo baskets in the canals and in the forests to collect intertidal coastal products. Mrs. Túc remembered:

> Women's obligations are always heavy. At the time I still lived with my husband's family while my husband was fighting against the U.S. in the south of Vietnam. I worked very hard. I did even not have enough time to sleep. My husband's family was very large, so threshing the rice and cooking for the whole family would take one the entire day. At that time, we did not have threshing machines. Therefore, it took us a great deal of time to do that. I then ended up going to bed very late. In the morning I had to get up early to go to the forests to collect marine products. I also collected firewood and sold it to people who made rice and pancakes at night. I then gave the money I earned from selling firewood and marine products to my mother-in-law. I did not dare to keep any money for myself, because I still lived with my husband's family. Since my husband was not around, I felt like a stranger in my husband's family. I never asked my mother-in-law for money, because I did not go out, and as a result I did not spend any money.

In the 1970s, these sideline occupations were no longer available because the mangroves had been destroyed. When the forests were deteriorating, the Giao Lạc women had to work harder to feed their families. Women then took on additional work, such as mat weaving, to earn extra work points since extra work points meant extra paddy for their families.

Since there were no mangroves left, villagers also had to switch from mangrove firewood to straw as their principal cooking fuel. But most importantly, the villagers had lost a crucial source of income upon which they had been dependent for such a long time.

3.7 Conclusions

Cooperativization and collectivization policies had dramatic impacts on villagers' patterns of resource access and use. Villagers had to cope with regulations imposed from above, while suffering the effects of environmental degradation that accelerated during this time.

In terms of livelihoods, the early post-land reform decade of mutual aid teams and low-level cooperatives was the "golden era" of the collectivization program. Although it was short, cooperative members' livelihoods improved greatly. However, the cooperative model revealed many limitations and mistakes. Due to the poor management skills of cooperative cadres, the commune's area of cultivated land decreased, and production costs increased dramatically, thus leading to a reduction in cooperative members' income. The development of high-level

cooperatives and specialized brigades fostered inefficiency, corruption, waste, and dissatisfaction. The larger the cooperative, the less productive it was, and the less income cooperative members earned.

Social differentiation in this period also continued to occur, despite the assumption that everyone was equally poor in the collective era. In fact, factors such as household demography, access to political power, endowments, individual drive, skills, and family background all influenced wealth among households. Even in cooperatives, the commune community was heterogeneous. For example, many Catholics who had boats and engaged in marine fishing were better off than the majority of the Buddhists. Other indicators of social differentiation were a household's ability to mobilize labor within a family cycle. The more advanced households that were better off were farther along in the cycle, with more laborers and fewer dependents. The one place where social differentiation seemed to decrease was that wartime improved the status of women. The demands made upon them by the war provided women in the commune an opportunity to expand their roles into decisive and competent women who in many areas proved to be equal to men.

During this roughly 30-year period, villagers did not passively accept all changes, but actively resisted the demands of poorly functioning cooperatives and inefficient commune cadres. The traditional collective and informal commune institutions increased villagers' power to defend what they saw as their interests in the collective economy. Peasants dragged their feet in working for the cooperatives and actively sought out alternatives, such as household garden plots or mangrove common lands, to supplement their meagre incomes. They did not, however, protest publicly against the system.

Mostly the villagers tried very hard to survive. While in the 1950s the mangroves were a source of supplemental income from firewood collection and fishing, open access shifted by 1960 to limited access. Villagers resented being excluded from the mangroves, and they resisted the state law by poaching in the forests to fell trees for firewood and collected other marine products to earn extra cash to meet other needs that the cooperative did not have the capacity to provide. During this period, Giao Lạc villagers were faced with rapidly changing state and local policies on the mangrove forests sometimes being told to plant and protect mangroves and sometimes to cut them down so the land could be used for other purposes.

Not surprisingly, by the late 1960s, the mangroves were deteriorating. This degradation had multiple causes, including commercial exploitation of some mangrove products; loss to rice field expansion and rush fields; and, most of all, due to the lack of voice of local people into how mangroves would be managed, as management was taken over by the state authorities and their guards. As the forests became more and more degraded, women could no longer make a living collecting firewood. The commune economy also became more integrated into the wider regional economy as a result of this deforestation for the expansion of shrimp farming. It is also very clear that by imposing the new policy on the local people without taking their long-standing land-use conventions into consideration, the national and local government had initiated mangrove destruction, giving rise to a "tragedy of the commons" as those traditions were pushed aside.

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Chapter 4
Impacts of Economic Renovation on Households and Coastal Ecosystems



Abstract I examine changes in social relationships, the rapid changes in local land-use systems, and ownership in response to national economic reforms and agricultural policies that were implemented during the late 1980s and 1990s in Giao Lạc. During this *Đổi mới* period, new forms of enclosure emerged, including shrimp aquaculture for export, clam farming, and mangrove replantation projects. I discuss how fragile local rights over the intertidal resource area have been deteriorating in such an environment of enclosure, unless local people are active in defending and consolidating such rights.

Keywords Economic reforms · Defense · Land use · Aquaculture

4.1 Introduction

This chapter examines how economic reforms associated with the *Đổi mới* (renovation) era post-1986 have affected Giao Lạc villagers' access to and control over local coastal resources including mangroves, mudflats, and the marine creatures found there. The chapter will investigate how the villagers' resource use and management strategies have changed in response to environmental change, new needs and opportunities for earning a living, brought on by market liberalization, as well as the intervention of government policies on resource management. The aquaculture practices of the villagers have changed dramatically since *Đổi mới* from open-access marine products on common lands to highly intensive shrimp and clam farming on privatized ponds and farms. Rapid changes in the allocation of private leaseholders in the coastal area and the legalization of private businesses, which exploit these resources, have meant that different classes of people have gained access to and used the resources differently. In particular, privatization has deprived many poor households of livelihoods, leading to new forms of social differentiation, which is discussed in more depth in the next chapter. This social differentiation has been made possible by the fact that *Đổi mới* has not benefited the entire community.

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The changes in access to coastal resources and the reasons why some people have been excluded from them are told through the story of enclosure movements that have been driven by markets and government policies. These enclosures in Vietnam were made possible by changes in land-tenure rights under the new market system, with transference of management responsibilities to households from the former cooperatives and local governments. While the four enclosure pathways that are examined here differ in certain details, such as what lands were privatized, who gained and who lost access, and over what resources, what they share in common is the lesson that those with political and economic power have used this to establish greater access to once-common resources. The economic benefits of these enclosures, such as lucrative shrimp and clam farms, further strengthen the power of the usurpers, but leave little for anyone else. And far from being a source of support for local people to protest against and reverse enclosures, government policies and state institutions have not only failed to support poor people's access and livelihoods, but, in some cases examined here, the state employees are the ones benefiting corruptly from enclosures.

The first section examines how *Đổi mới* economic reforms shifted management responsibility for lands and agricultural production to households. There have been rapid changes in local land-use systems and ownership in response to national renovation reforms since the old central planning was abandoned. By withdrawing from direct intervention in the commune's economic activities, the government has granted households a high level of autonomy, thus stimulating households' incomes and the diversification of income sources. However, although market liberalization has led to greater diversification of income sources, it has also resulted in social differentiation with the shift from agricultural incomes to nonagricultural incomes, leading to growing inequality.

The second section looks at how open-access coastal resources have been important for poor people who were not able to benefit from improvements in the household agricultural economy. Collecting shrimp, clams, crabs, and other wild resources in common mangroves and mudflats allowed these households and individuals, often women and children, to contribute to household livelihoods. However, market pressures have forced these collectors into overharvesting, as well as destructive harvesting, leaving fewer and fewer resources.

The third section addresses how these problems were combined with enclosures of the once-common lands of mangroves and mudflats by examining four different enclosure pathways: intensive shrimp farms, clam farms, a mangrove plantation, and a private investment project that threatened to abolish villagers' rights of intertidal resource access and use and place them in the hands of a private company. In the first two cases, rapid growth in markets for seafood products, particularly for export to global consumers, fueled the rise of privatization. In the third case explored, the involvement of an international NGO, whose mission was to assist villagers to plant mangroves for the protection of sea dikes and to create employment for villagers, did not guarantee local rights over the intertidal resource area. In fact, these rights are very fragile in the present system—destroyed simply by the stroke of a government official's pen. Only in the last case of a private investment

company claiming outer tidal lands was there successful resistance to an enclosure movement in Giao Lạc.

4.2 Renovation Reforms—A Return to the Household

As discussed in the previous chapter, cooperatives began to experiment with household contracts in the late 1970s, and, by the early 1980s, such approaches were widespread. Yet even under these contracts, only 20–30% of the output belonged to the villagers, the rest going to the cooperative. From late 1985 to the end of 1986, the socioeconomic situation in Vietnam reached the point where the majority of people found it impossible to sustain their livelihoods (Pham et al. 1999: 95). Economic reform (*Đổi mới*) was officially initiated with a resolution of the Sixth National Congress of the Communist Party in December 1986, an act that shifted Vietnam's national economy to a commodity-producing economy.

Bad weather in 1987 further reduced the country's total food output by nearly 1 million tons, leading to a famine beginning in March 1988 in 21 provinces and cities in northern Vietnam (Cuc 1995: 87; Tran 1994: 112, 1998: 43). Following the 1987–1988 spring–winter crop, many localities upgraded the "Contract 100" to a "complete contract to households" and did away with specialized and production brigades. This brought about good results and was supported by farmers (Cuc 1995: 88). On April 5, 1988, the Communist Party, responding to the crisis, issued Resolution 10 on the renovation of agricultural management (Ngo 1993: 177). The major function of Resolution 10 was to replace the cooperatives with a "package contract" system (*khoán gọn*) to peasant households (Que 1998: 46). The support of the Party for this policy, which had already been implemented at the local level in many places, suggests that central authorities were often one step behind local arrangements (Kerkvliet 1995; Fforde and de Vylder 1996). Powerful pressures for agrarian transformation had emerged from the local level principally because farmers were not satisfied with the collective regime, its institutional arrangements, and, most importantly, their low incomes (Kerkvliet and Selden 1998: 119).

Under Resolution 10, the farming household was considered an autonomous economic unit. The work-point system was abolished and was replaced by a system in which farmers paid for services they received from the cooperative, and they repaid their contract quotas in cash or in kind (Le 1997: 118). Households were able to lease rice fields back from cooperatives for a period of 15 years. Farmers were no longer required to sell a contracted amount of rice to the state but were obliged to pay agricultural taxes (Vo 1995: 189; Le Cao Doan 2014: 118). The state assured that the household could retain at least 40% of their average produce after production costs, taxes, and other contributions to various commune social and welfare funds (Ngo 1993: 177). Overall, the decision inspired industriousness and stimulated agricultural production (Kerkvliet 1995: 72). Vietnam rapidly moved from a country that did not produce adequate food for domestic consumption to one that

was able to export 1.4 million tons of polished rice in 1989 (Ngo 1993: 178; Fforde and Sénèque 1995: 105).

Agrarian Reform in Giao Lạc

In Giao Lạc, Resolution 10 was put into practice by the end of 1988. Each household received an allocation of 1.5 *sào* of agricultural land per household member, which was registered to the household head. In other words, men and women, young and old, did not receive an individual right to the land, but rather their rights were tied to those of the household head. In Villages 7, 8, 9, 10, and 21, which are located along the central dike, each household member was allocated 1.6 *sào* including a piece of land for seedlings.[1] Although per capita land holdings were larger in these five villages than in the other villages in the commune, no one was envious because soils in these five villages had higher salinity and acidity levels, and therefore rice yields/*sào* were lower there.

Land was classed according to its quality and productivity during land allocation. There were a small number of households that were allocated plots of one single class of land, while the majority of households received more than one plot of various classes. In this way, a high level of inter-household equality was maintained. Individual plots farmed by households might range from three to eight *sào* scattered in various places. Villagers rarely constructed the small bunds that would be needed to demarcate each household's fields because this would reduce the amount of cultivable area, but used cooperation with one another to establish whose field was whose.

For the first time since the 1960s, all households in Giao Lạc "owned" their rice fields and had more freedom of choice in deciding what to plant. Farmers' land ownership was restored in a de facto, if not yet permanent, way, and producers were more or less entitled to the final output. Everyone was therefore encouraged to invest in land improvement and to work harder on their own rice fields to improve their income by surpassing contracted output levels, a mindset that had never been observed during the collective era. New Chinese rice varieties, such as 203 and 17,894, were brought in and grown; in addition, more fertilizers and pesticides were applied. All of this dramatically improved rice yields. On average, one *sào* yielded 200–220 kg of paddy, while it had been 100 kg/*sào*, and at times only 20–30 kg/*sào*, during the collective era. This led to high satisfaction about Resolution 10; for example, Mrs. Ngự recalled:

> We thank Mr. Nguyễn Văn Linh[2] who launched the Economic Reforms in 1986 so that farmers like us could have sufficient rice to eat and warm clothing to wear during the cold winter days. During the collective time, we sometimes produced a great deal of paddy, but commune cadres did not distribute paddy to us. Instead, they brought paddy to their houses.

[1] Although for agricultural purposes, 1.6 *sào* per person is small, per capita land holding in Giao Lạc was larger than that in its neighboring inland villages. Giao Lạc is a coastal commune, and therefore it possesses more land than the others. The distribution within the commune was highly equitable.

[2] Mr. Nguyễn Văn Linh was the Secretary-General of the Communist Party of Vietnam in 1986–1991.

Resolution 10 recognized farmer ownership of machines, water buffalo, cattle, and agricultural tools (Cuc 1995: 94). In Giao Lạc, collective machines, water buffalo, cattle, and agricultural tools were appraised and sold by auction to farmers who made more efficient use of these assets. Many households bought additional machines such as motorized water pumps, threshing machines, rice mills, hand tractors, paddy tractors and boats for their own use and to provide services to other households in the commune. More production means allowed villagers to expand production and conduct more intensive farming on their contracted fields. After 1986, the villagers could not only produce for their own consumption but also for the market, marking a turning point in the transition to commercial farming.

Once the role of the cooperative was gradually downgraded and the household became the principal production unit, the management of the cooperative was reoriented to play only supporting roles, such as helping households to get electricity, irrigation water, seeds, and fertilizers, as well as agricultural extension services. For example, households could buy fertilizers and pesticides from the cooperative on credit and repay in paddy after harvests. In Giao Lạc, the cooperative also has a plant protection brigade, which is responsible for pest and insect control. To pay plant protection cadres and those who were in charge of irrigation works, including the salinity and acidity reduction service, the cooperative collected a crop service fee of 1 kg of paddy/*sào*.

In addition, the cooperative also acted as a middleman between the households and the state in overseeing the redistribution of agricultural land. In 1992, the commune decided to reallocate agricultural land to its households. In July 1993, the National Assembly passed a new land law, which was followed by Decree 64CP issued in September 1993 that extended land users' right to lease to 20 years for agricultural land and 50 years for land planted with tree crops. More importantly, these legal documents made provision for the transfer of use rights (Dao 1995: 139). This new land law provided villagers with adequate incentives to invest in land reclamation and improvements in soil fertility and water management with consequent increases in yields (Cuc 1995: 103).

Giao Lạc redistributed its land at the end of 1995 through 1996. On average, each household member received 1.2 *sào*, with households in Villages 7, 8, 9, 10, and 21 receiving an allocation of 1.4 *sào* each. At the end of 1997 and at the beginning of 1998, state officials came to the commune to remeasure the land received by households so as to issue "red books." These documents, which were signed by the head of the household, provided households with the right to use the lands that they were allocated until 2013,[3] in effect, stipulating that land would be redistributed every 15 years, even though the national law extended land-use rights to 20 years. The commune also has a land reserve, which accounted for about 5% of the total area of the commune's land. This is the land that the commune has not yet assigned to households, but is reserved for the newcomers, such as discharged soldiers or new children, similar to the public lands during the precolonial time (see Le Cao Doan

[3] Lands were not redistributed in 2013.

2014: 121). Under the present system, the public land is set aside for periodic auction.

Although the allocations of land stimulated agricultural production and allowed households to begin to accumulate productive assets and wealth, one major point of conflict has been the large number of fees, taxes, and contributions that these households must now pay to local authorities for all kinds of funds, from running the cooperative and plant protection brigades to local road building. There has been serious concern about mismanagement of these funds: According to key informants, the majority of commune cadres were corrupted. Since 1999, villagers had been protesting and asked the district and the province to come to the commune, listen to them, and solve their problems. In the early 2000s, inspectors from the district and province had been sent to the commune three times to investigate the commune's documents and budgets. However, the problems were not solved. Mrs. Hòe related her concerns:

> Between 1989 and 1999, in total, each member had to contribute more than 100 kg paddy/year for all kinds of funds and fees, while he or she was allocated 1.2 sào of rice fields. In April 1999 at least 400–500 farmers came to the Commune People's Committee every day to protest against commune cadres and the commune policy on agricultural taxes and other contributions, which was too much for us and was not collected in accordance with the government's policy. The protesters raised money among themselves to cover the transportation costs and the food to go to the District, the Province and even Hanoi to ask the relevant authorities to resolve our situation. The majority of the protesters were Catholic women. Although not many Buddhists joined them, they supported the Catholics in this battle. … We will wait for the government's decision on corrupted officials who had abused the reputation of the Communist Party to squeeze genuine farmers like us to get rich on our sweat and tears. We think all of these cadres should be administratively prosecuted. In 2000, the District changed their policy on farmers' contributions to the four funds[4] and social labour to the district and the commune, although no decision has been made on corrupted cadres. In total, each household member is supposed to contribute 15 kg paddy. We have been grateful to those who have spent their own money to make special trips to the District, the Province and Hanoi to bring our message to the Central Government so that we do not have to contribute as much as we did in the past.

As in the previous periods, villagers resisted at the point where the existing system of authority lost legitimacy in the eyes of the villagers.

4.3 Household Livelihoods and Dependence on Open-Access Resources

Resolution 10 dismantled the system of collective ownership and liberated farmers from economic conditions they had suffered under for more than 20 years. Villagers now have more freedom in their farming activities, and businesses and rice yields

[4] The four funds include the Defense, the Social Order and Security, the New Economic Zones, and the Natural Disaster Prevention.

consequently increased dramatically. As a result, living standards of villagers have greatly improved.

On visiting current-day Giao Lạc, the commune landscape is composed of dense clusters of houses half hidden behind bamboo hedges, surrounded on one side by canals and the other by flat expanses of rice fields. The end of the commune extends south to the central dike and to newly planted mangrove forests funded by the Danish Red Cross in 1997, beyond which are an intertidal area and the East Sea. Giao Lạc has an area of 744 ha, of which 535 ha is agricultural land and 442 ha of this, or 83%, is rice paddy. The household resource system consists of a wide range of inputs, including rice fields, house plots, home gardens, fishponds, livestock, roadsides and dikes, canals, and rivers. Mangroves and mudflats are also exploited and have formed an important resource for poor households in particular.

Since the *Đổi mới* reforms were introduced in Vietnam in the late 1980s, countries in Asia and Europe and the United States have become major importers of Vietnam's marine products. Shrimp and other marine products began to fetch high prices. Motivated by large export profits, both the central and local governments have encouraged farming of shrimp (*Penaeus monodon*). In Giao Lạc, only the rich and the upper-middle and middle classes with connections to local power were able to gain access to the intertidal mudflats and thus engaged in shrimp and clam farming. The rich earned five times or more compared with the poor. Incomes from rice cultivation were very small compared with earnings from shrimp and bivalve farming. Those who just depended on rice cultivation, although working hard, only had enough rice to eat for between 8 and 10 months of the year.

4.3.1 Collection of Marine Products

Before 1990, various kinds of bivalves in the mangroves and mudflats of Giao Lạc were collected mainly for domestic purposes. Since *Đổi mới*, the increasing need of Giao Lạc villagers for cash has changed the character of the collection of marine products in general, and clams in particular**,** in recent years.

Collecting clams on open mudflats was a good occupation, especially for the poor. Giao Lạc people used a light plank or small rake to move the soft and deep mud to get to species, such as *Cyclina sinensis* (*ngó*), *Meretrix meretrix* (*vạng*), and *Mactra quadrangularis* (*vọp*).[5] Importantly, this activity was conducted mainly by women and girls during neap tides that occur twice a month.[6] It did not require any investment, except a rake, and in return they earned some cash to buy rice. For those households that had sufficient rice, they could earn some extra cash for household expenses, including food and contributions to weddings, funerals, and

[5] According to Nielsen et al. (1998), 23 bivalve species representing 17 families are recorded in the Cửa Đáy estuary, Red River Delta, Vietnam.

[6] A neap tide is just after the first or third quarters of the moon, when there is the least difference between high and low water.

housewarming parties, so that they did not have to sell paddy for cash. In 2000, 1 kg of collected *ngó* fetched VND 3000–7000,[7] depending on the month of the year.[8] Four hours on the mudflats could usually result in 2–4 kg of clams. Collectors usually sold their clams to traders on the dike before they went home, and on average, one collector could earn VND 5000–25,000 for 6 h in 2000. In comparison, before 1990, a day's labor yielded around 1 kg of rice, while in 2000, a single day collecting clams could yield the equivalent of 3.5–17 kg of rice. Collectors could go to the mangroves and mudflats to collect clams 20 days/month, staying at home the remaining days due to high tides.

However, market incentives have led people to overharvest to earn as much cash as possible. Bivalves are presently much smaller and fewer because people have overharvested a larger portion of the resources. Since the early 1990s, shallow wild species, such as *Meretrix meretrix* (*ngao mật*), *Meretrix lusoria* (*ngao dầu*), and *Mactra quadrangularis* (*vọp*), have become either very rare or extinct. There are so few today that if someone wants to dig clams in an area that was recently harvested, it would be necessary to wait for a month until small clams grow, a shortage that had not occurred previously. According to Nielsen et al. (1998), in a neighboring area, *ngao*, *don*, *móng tay*, *vọp*, and *ngó* have been affected by human exploitation, and there tends to be a lower biomass per m^2 and density, attributable to overharvesting. Consequently, villagers started shifting from small rakes to digging up clams, potentially causing even more damage to the ecology.

They also shifted from self-consumption to sale of these bivalves. In the past, bivalves were so cheap that villagers substituted them for rice. Bivalves and many other marine products have now become valuable commodities: about five times more valuable for bivalves and ten times for natural shrimp (*tôm rảo*) (Hue 2001). As a result, all products that were high in protein, such as crabs, shrimp, bivalves, and fish (*cá nhệch*, *cá bớp*, and giant seaperch), were sold to traders for export. Only those that were low in protein and therefore fetched low prices, such as tiny fish, shrimp, crabs, and snails, were consumed by households.

Another freely collected resource was wild baby mud crabs (*Scylla serrata*), which breed on offshore sand dunes between July and August, and are then swept to the mudflats and the mangroves by the current. Men, women, boys, and girls collect baby crabs during neap tide at night, sometimes spending more than 10 h on the mudflats, using lanterns and having to rent boats to reach prime collecting areas. However, this activity depends very much on luck, as the crabs are sometimes as small as peas and sometimes as large as shirt buttons, and require the collector to move very quickly and have good vision. Thus, those in their 20s collected more

[7] In 2000, 1 USD was equivalent to VND 14,500.

[8] At the beginning of the year, a kg of collected *ngó* fetched VND 3000 and at the end of the year VND 6000–7000. Between November and December was the breeding season of natural clams, and, more importantly, at this time, villagers were fully engaged in collecting wild baby crabs. During these months, few collectors were engaged in collection of clams because income gained from collecting of wild baby mud crab was much higher. Consequently, the price for clams went up.

crabs than older people with diminished vision. It should be noted that in the past immature crabs were not collected, due to a lack of interest from buyers, but their rarity and increased prices meant that nearly all that were found were collected.

Baby crabs were then sold to shrimp- and crab-pond owners to farm, which would reach the market size and be harvested after 6 months. An average earning for a crab collector might be VND 45,000 a night, while other households might earn nothing. Those households with both husband and wife involved might be lucky enough to earn VND 3–4 million for the entire 4-month season. This was considered the most lucrative of all the marine-product collection activities, but declines in baby crabs occurred, due likely both to overharvesting and because many babies may have been killed by fish and shrimp collectors using electricity.

Collecting wild shrimp (*tôm rảo*) was a last source of income for households, but transformations in how these are harvested have affected the supply. A pulling trap (*te thuyền*) used to be a very common shrimp-catching gear in the past, and it was environmentally sound, but catches were smaller than by using electricity. Market incentives have led villagers to harvest a larger portion of shrimp using this destructive method since the 1990s, when motorized boats (*te ủi*) and push nets (*te điện*) using electricity first appeared.

There were two *te ủi* boats in Giao Lạc in the 2000s. These boats can produce a 220-volt electric current, and, with a step-up transformer, the voltage can be raised to 300. All marine creatures that come across the boat's path are either killed or stunned from the electric shock. Two men work the boat and stop every 45 min to collect their catch. After 6 h work, *te ủi* owners return to sell their catch to traders, averaging 15 kg of shrimp per trip, of which an average of 4 kg were large shrimp and the rest smaller. Larger shrimp fetched better prices because they could be kept alive, then be frozen, and traded to China and beyond, while small shrimp usually died quickly after being caught and were used locally, including as feed for domestic pigs. On average, one *te ủi* owner could earn VND 50,000/day, but sometimes found less than a kilogram per trip depending on luck.

Push nets made of bamboo were once a common way to catch wild shrimp, but, since the 1990s, push nets have been modified using electricity in order to catch more. The nets are connected to a 12-volt battery, which could be increased to 220 by a step-up transformer, or increased to 300 or even higher to catch flounder. The user keeps a distance from the net with the pole, which is 5 meters long, to prevent being electrocuted by the electric current, and when the user wants to collect his catch, he disconnects the wire connected to the battery. However, two *te điện* people were reported to have been killed when catching flounders because they forgot to disconnect the battery. This activity is always carried out by men at low tide.

The *te điện* people usually catch shrimp for 5–7 h, 3 weeks out of every month to avoid high tide, and then sell their catch to shrimp dealers who wait for them on the dike. In 2000, the total investment in a *te điện* was VND 830,000, and, according to the *te điện* users, they could cover their costs within 2 weeks' time, earning between VND 500,000 and 600,000/month, even though these activities were technically illegal. According to Decree 48CP which was issued on August 12, 1996, those who used electricity either with motorized boats or push nets and are caught

have to pay a fine of VND 4 million or VND 500,000, respectively. It was reported, however, that the Border Post No. 84, which is mandated to protect the wildlife and marine resources in the buffer zone,[9] including Giao Lạc, in fact protected the *te ủi* and *te điện* people because collectors would bribe the Border Post's members for access to the wild shrimp areas. During the time of fieldwork, dozens of people used *te điện*, but the majority of them were from rich and upper-middle households.

By the time this research was being carried out, shrimp-pond farmers in Giao Lạc were very angry with those who used electricity to catch shrimp and fish. The *te ủi* and *te điện* people were blamed for killing all the baby shrimp and crabs, and fish and shrimp eggs. According to shrimp farmers, their catches were declining as once abundant wild shrimp populations, especially wild shrimp postlarvae, declined as a result of using destructive harvesting gear. Shrimp and clam farmers, fishermen using grape and gill nets and pulling traps, and bivalve collectors complained that the *te ủi* and *te điện* had destroyed many species of aquatic organisms, depriving them of their livelihoods, and that organisms killed in the soil had contaminated the water. Finally, they went to the district, and in response, the district sent inspectors to the commune to investigate. Unfortunately, the people at the border post had informed the *te ủi* and *te điện* people and asked them to stay at home on the day that inspectors arrived. This fact frustrated all the villagers. According to the interviewed fishermen and shrimp farmers, the *te ủi* and *te điện* people were not the ones who should be blamed, but rather the Border Post No. 84. One of the *te ủi* owners explained:

> We have to bribe members of the post one million VND/month. In addition, we transport them to different communes in the region when they are on mission, because the post does not have the means for its members to travel around. For these missions, the post's members receive travel allowances, but do not have to pay us for the gasoline. They sometimes come to our houses for dinner. We have to prepare good meals for them. Most of the time, we have to bring part of our catch, the large shrimp that we catch during the day home to cook for them. In addition, we have to catch the fish from our fishponds and buy the local alcohol from the local shops for them. Although they tell us not to prepare a big meal, all of us have to try our best to please them so that they would protect us.

Like the *te ủi* people, the *te điện* users also had to invite members of the Border Post No. 84 to their houses to negotiate the price every month and provide them big meals. It is reported that the Commune People's Committee could not do anything about the *te ủi* people, although they have the same jurisdiction over the coastal resources of the commune as the post. This is partly because the *te ủi* and *te điện* people were the relatives or good friends of commune cadres, and more importantly

[9] The buffer zone is clearly demarcated area, with or without forests, outside the boundary of the nature reserve, and managed to enhance the conservation of the nature reserve and the buffer zone and benefit people living around the reserve. This can be achieved by the application of specific development activities, especially contributing to improving the socioeconomic well-being of the buffer-zone residents. In Giao Lạc, the buffer zone consists of five communes, including Giao Thiện, Giao An, Giao Lạc, Giao Xuân, and Giao Hải, with a total area of 4276 ha. The Commune People's Committee and the Border Post No. 84 are mandated to arrest and impose a fine on those who violate the rules in the buffer zone.

they were well connected with the members of the post. Anyone else who tried to use *te điện* without bribes or friendship with those in power were subject to the legal enforcement. An old *te điện* user related his story:

> The post's members caught me after I had used my te điện for three months. I tried very hard to ask them to release me and not impose a fine on me and promised that I would never do it again. However, there was no effect. Even my father who was the head of Village 7 at the time came and asked them for the favour, but they refused to return my gear if the fine was not paid. My father and I later discovered the reason why they did not return my gear. It was simply because we did not know how to follow the rule that all the te điện people in the commune have followed. After I paid the fine, I sold the gear and changed to another occupation. I did not continue using the te điện by bribing them as the other te điện people in the village, because I did not want to offer a bribe to those who live on poor villagers' sweats and tears.

Both men and women were involved in freely collecting coastal resources. Women were more involved in bivalve and baby crab collection and were sometimes hired to collect bivalves and seaweed for clam and shrimp farmers. Many men were involved in collecting baby and mature crabs and fish, as well as engaged in collecting shrimp and fish using electricity.

4.3.2 Impact of Đổi mới on Mangroves, Mudflats, and Other Coastal Resources

Along with changes in the agrarian economy, and shifts from cooperative to household production, the management of mangroves and mudflats changed dramatically in the *Đổi mới* era. The economic openness enabled changes in land access to these resources, with many of these areas shifting to private control out of previously public or open-access lands. In private hands, these lands were transformed from diverse coastal ecosystems into intensive shrimp and clam farms, producing commodities for an increasingly globalized market. China in particular has become the biggest importer of North Vietnam's marine products, stimulating changes in how coastal resources are valued and used in Giao Lạc.

The northern region is traditionally dominated by freshwater-fish ponds, rice with fish, and marine-cage culture. The first trials on hatchery production of marine shrimp (*Penaeus merguiensis* and *P. penicillatus*) in northern Vietnam were conducted in the 1970s (Hai et al. 2015). The aquaculture sector began commercial production for export in the early 1980s with the farming of the giant tiger prawn (*Penaeus monodon*) initially. A major motive for the expansion of aquaculture in the north, in particular, and in Vietnam, in general, was the sharp increase people saw in the volume of aquaculture products being exported (Nguyen et al. 2017).

4.3.2.1 Enclosure Movement 1: Shrimp Farming

As noted in the previous chapter, from 1978 to 1979, under the leadership of district officials, the commune mobilized its cooperative members to clear forests on the western side of the commune for shrimp-pond development. Since there were no mangroves to protect them, the pond dikes were broken, and shrimp and fish disappeared. As a result, district officials left the land to Giao Lạc commune, which is mandated to administer the land on behalf of the District New Economic Zone Department. As discussed in Chap. 3, Giao Lạc commune constructed Biên Hòa pond in 1962, which had an area of more than 54 ha, and therefore is managed locally by the Giao Lạc cooperative. Four households bid for a 15-year lease over Biên Hòa pond for the first time in 1975. During this period, the households caught only wild marine products—shrimp, crab, and fish. The second period lease was 10 years, 1990–2000, with proceeds of VND 240 million. As in the previous period, 1990–1995, only natural marine products, including seagrass, were harvested. From 1995 to 1999, owners of the pond started farming crab and tiger shrimp since 2000.

Farmers who first engaged in shrimp farming in the late 1980s bought the land in the intertidal mudflats that the district officials had left to Giao Lạc commune due to failure to construct shrimp-pond dikes. For a pond of 20 ha, they had to pay the district officials VND 1.2 million for rent. In addition, they paid rent to the district. For example, for a 20-ha shrimp pond, they paid a total of VND 3–4 million/year. Shrimp farmers did not have much money to start with. The only thing they had at the time was a willingness to take a risk. To start out, each person contributed one tael of gold (VND 4.2 million at the time), obtained from local moneylenders at a high interest (50% after 1 year) to hire workers to construct shrimp ponds. Further, in the beginning, it was very difficult to construct dikes for the ponds. There were no dredges: Work was done by hand. Many worked very hard during the day to build the dike, which was in turn broken by night during high tide. One shrimp-pond owner recalled:

> At the time we did not have money to hire many workers to build the dike for us. Hence, we had to both use family labour and hire some workers. Wages for a worker to build one meter of the dike was VND 50,000. In total, the cost of dike construction was up to VND 25 million. The gold that each of us had contributed was almost gone. Newly constructed dikes were so small that the high tides broke them right away. We could not catch any marine products, because we failed to construct the pond's dikes, while we had to pay the high interest for the money we had borrowed. Between 1988 and 1989 there were no mangroves left in Giao Lạc. Later we learned that our pond's dikes were broken because there were no mangrove forests to protect them. In 1990 we decided to plant mangroves outside the dikes to protect them. We were finally successful in constructing them. The mangroves are 10 years old now and they help protect the pond dikes, while providing nutrients for shrimp in the pond.

By 2000, Giao Lạc had five shrimp ponds with a total area of 130 ha, ranging from 12 to 50 ha each. Households or entrepreneurs bid publicly for a lease to manage a shrimp pond. There is a difference between the oldest Biên Hòa pond and the other four. For the other four ponds, those who had constructed the pond were given the first priority to take part in the bidding process. If they were not interested in

bidding for a lease, the chance would be given to the public. However, most of the time, the old owners of the ponds participated in the bidding process. In cases when they were not interested, they could sell their share to someone else. High demand from Giao Lạc residents who had previously rented ponds in Thái Bình, but who had lost their leases, resulted in dramatic increases in the prices of shrimp ponds. In 1988, a share of a pond was sold for VND 40 million. By 1999, the price was double that, at VND 80 million/share. In principle, everyone who had capital sources to invest in shrimp culture could take part in the bidding process. Shrimp farmers were supposed to pay rent to the District Finance Department after year three, paid in paddy at the current market price (ranging from 300-kg paddy/ha/year for class I land to 130-kg paddy/ha/year for class VI land). However, as the following example shows, the bidding process to obtain land for shrimp farming is highly skewed toward the rich.

On December 27, 2000, the bidding process for a new lease of 5 years from 2001 to 2005 to manage Biên Hòa shrimp pond took place. In principle, households or entrepreneurs who were not from Giao Lạc could take part in the bidding process, but, in reality, those who were not from Giao Lạc were supposed to group with those who were from Giao Lạc. Although unwritten, everyone accepted it as the rule and followed it. Usually, eight or ten interested households or entrepreneurs wrote a letter together and sent it to the Commune Bidding Committee, consisting of eleven members from different local organizations. By bidding in groups, they shared capital sources, and those who were interested in the bidding were supposed to transfer VND 50 million each as a deposit to the branch of the Vietnam Bank for Agriculture located in Giao An commune before the bidding took place. The news was broadcast on the commune's public loudspeakers so that everyone would know about the bidding, the venue, the date, and the time it would take place. The committee received 59 letters from 59 groups of people, of which seven letters were from neighboring communes. It is reported that a number of households did not transfer the money to the bank as required. However, they were still able to participate in the process, simply because they had connections with the members of the committee.

On bidding day, 22 representatives of 22 villages in the commune, as well as representatives of the protesters who had been protesting against corrupted commune cadres (as noted in the previous chapter), were invited to be observers at the bidding. The initial bid was VND 950 million for 5 years. The bid was increased by VND 5 million every hour until a group including the former chairman of the commune won the bid of VND 1.1 billion. It was said that this group hired a number of men to come to the bidding place to insult and threaten not only those who were participating in the bidding but the committee's members as well. The entire atmosphere was quite tense and chaotic, and those from neighboring communes lost interest in the bidding. Consequently, no one was bidding against the former chairman's group. It was reported that the hired thugs who were threatening the bidders and the Bidding Committee received VND 10 million each which was an amount sufficient to buy each participant a motorbike. The current chairman did not stop the former chairman's group because they were good friends. According to a member of the Bidding Committee, the Giao Lạc villagers would have benefited more if

people from the neighboring communes had won the bid, which was expected to be between VND 1.4 and 1.5 billion, as the proceeds from the bidding were supposed to be spent on the commune's infrastructure, such as schools, health clinics, and roads.

According to the rule of the Bidding Committee, the group that won the bid was required to pay 80% of VND 1.1 billion 2 weeks after the bidding took place. However, the group in question did not have enough money to pay on time, and they had to mobilize money from external entrepreneurs and local lenders. A month later, they handed over only two-thirds of the amount that they were supposed to. This created resentment among those who had participated and believed the process was not fair since the committee had given special favor to the former chairman's group. The current chairman who had allowed the whole process to happen later became a land broker, dividing Biên Hòa pond into two and leasing them to outside shrimp farmers. This has reportedly turned out to be a large business from which he earned a great deal of money.

Livelihoods from Shrimp Farming

As discussed earlier, upwards of five to seven households can cooperate to manage one shrimp pond. In this way, they share capital sources, labor, and management responsibilities. Notably, owners of shrimp ponds are not allowed to borrow money from the formal state banks since, according to the government, shrimp farming is considered a risky occupation that risks defaulting on loans. As a result, shrimp farmers must borrow money from local moneylenders, whom they must know personally. There are many cases where owners of shrimp ponds have gone bankrupt, and they ended up selling even their houses and valuable assets. Nevertheless, they could not pay the loan back to moneylenders and have fallen into debt, as well as still being responsible for lease payments on the shrimp pond.

Ponds are managed in various ways, ranging from more natural to more intensive aquaculture. For the low-input, more natural system, farmers use natural shrimp fry (*tôm rảo*), as well as crabs that are caught from the brackish water river nearby or purchased from local collectors are then released into the pond. No feed is needed. Seaweed is also gathered from brackish rivers nearby for the ponds. It is important to note that Biên Hòa was the only pond that used a modified, extensive aquaculture shrimp method with higher inputs, while the remaining four shrimp ponds used the low-input, extensive aquaculture shrimp method. Shrimp and crabs are collected from the shrimp ponds and delivered to local traders—all of whom are men—and to the Xuân Vinh Freezer Plant, which processes the shrimp for shipping to larger cities in Vietnam and to the Hanoi Seaprodex.[10] After that, the shrimp is distributed from the Hanoi Seaprodex to other countries in Asia, Europe, and the United States.

[10] The Hanoi Seaproducts Import and Export Corporation (Seaprodex).

Seaweed harvesting is another source of income from low-intensity shrimp ponds. Owners of shrimp ponds invest a small amount of money in seaweed culture but usually earn large profits. This explains why all shrimp-pond owners at the time of my fieldwork also cultured seaweed. On average, each pond generated profits of VND 20–40 million from seaweed in 2000. Dried seaweed was traded to Hải Phòng by traders, from where it was later processed and then distributed to wholesalers in the entire country and China.

Typically, each low-input shrimp pond generated profits in 1999 of VND 90–150 million per year (6200–10,000 USD/year) (Hue 2001). Biên Hòa pond was the largest pond using the higher-input method, so its profits were larger. According to its owners, in 1999, they earned more than VND 300 million from sales of *tôm rảo*, crabs, fish, and seaweed. On average, profits each owner earned ranged VND 18–43 million per year, a large amount of money compared with the meager income earned by a rice farmer, which averaged VND 310,000 per year. These large profits from aquaculture enabled owners to invest in further improvements and expansion, such as by using mechanical dredges to strengthen dikes.

This shrimp polyculture system to incorporate *tôm rảo*, fish, and seaweed was dominant in Giao Lạc, even though high-intensive tiger shrimp farming was more lucrative. The polyculture method helped farmers avoid risk; in monoculture systems, if the shrimp were lost to disease, cold weather, or unusually turbid water caused by typhoons or hurricanes, farmers would lose profits and face debt. But when tiger shrimps, *tôm rảo*, fish, and seaweed are farmed together, even if the tiger shrimps die, farmers could still sell *tôm rảo*, fish, and seaweed to traders. Therefore, security of livelihood is more important than higher profits for extensive pond owners (Sano 2000: 39).

Nonetheless, some high-intensity shrimp aquaculture producing tiger shrimp (*Penaeus monodon*) has been encouraged by both central and local governments, including a National Decree 773-TTg issued by the Prime Minister on December 21, 1994, which stipulated that open coastal areas and waterfronts can be used for shrimp and crab farming, with government support for the export of aquatic products (Government of Vietnam 1998). High-intensity shrimp farming first started in nearby Giao Thiện commune in 1995 (Tran 1995: 2), which quickly earned large profits of VND 100–200 million (Tran 2000: 1–7). In 2000, owners of shrimp ponds in Giao Lạc started tiger shrimp farming.

Although everyone knew that it was a gamble, owners of shrimp ponds in Giao Lạc were tempted by such a lucrative opportunity, hoping that their newly established pond system would bring them large profits. Even if half of the shrimp in a given farm died, shrimp farmers could still make more money than going back to the old profession of rice farming.

Costs to improve a pond for tiger shrimp culture were as high as VND 150–200 million, which had to be borrowed from moneylenders at a 2% monthly interest rate, ensuring that only already well-off or average people could participate. The money was used for dredging the pond, shrimp fry, fertilizers, pesticides, and artificial feed. Shrimp fry bought from hatcheries in Central Vietnam were transported to Hải Phòng by airplane, and then from Hải Phòng to Giao Thủy by truck. Shrimp

farmers registered with the District Department of Aquatic Products to buy the fry, but most fry were not quarantined and checked for disease, a job that the Provincial Office of Aquaproduct Protection was supposed to be in charge of. After fry were released into shrimp ponds, too often they died as a result of the spread of disease, and many shrimp farmers have been driven to bankruptcy by the high mortality rate of shrimp. Other inputs, such as fertilizers, pesticides, and artificial feed produced in Thailand, were purchased from shops in the commune. Tools such as water pumps were used and required a large amount of oil and electricity.

Owners of Biên Hòa pond did not have experience in farming tiger shrimps, so they formed a joint venture with the Red River Food Processing Company, whose director had been successful in shrimp culture elsewhere. According to the contract, the company contributed the expertise, and the shrimp farmers contributed the pond. The two parties would bear all the other costs, such as feed and construction of the improved pond for tiger shrimps. Because of the director's expertise, the Biên Hòa pond was a success. In the other three ponds, however, many fry died right after they were released into the shrimp pond. This was partly due to the quality of the fry and partly because the ponds' water was not managed well (Bao Chan 2001: 5).

At least one man has to be hired to watch a shrimp pond, earning a salary of VND 200,000/month (Hue 2001). During the time of this fieldwork, it was revealed that theft occurred at an alarming rate in Biên Hòa pond because it was so large that the owners of the pond could not control the perimeter. Many others were envious mostly because Biên Hòa pond was the only pond that was succeeding in farming tiger shrimp while others were failing. Although the majority of shrimp-pond owners were from Giao Lạc, they still could not prevent shrimp thieving. Even pond watchers could not entirely be trusted; sometimes they themselves caught tiger shrimp and sold them to traders for cash, when the owners of the pond were not around.

In successful ponds, shrimp are harvested after 4 months and then sold to a purchasing agent of the Xuân Vinh Freezer Plant. After shrimp are processed, they are distributed to supermarkets in large cities, such as Hanoi, Hải Phòng, and Saigon, and to Seaprodex, from which the frozen shrimp is distributed to other more distant markets, including Hong Kong, Japan, and Europe. Local traders of shrimp cannot compete with the local Xuân Vinh Freezer Plant, so this trade is dominated by Seaprodex, the state-owned, extra-local company.

Consequences of Shrimp Farming

The privatization of the formerly commonly managed mangrove resources has resulted in a number of social and ecological consequences for the villagers of Giao Lạc.

In terms of social consequences, the enclosure of once-common lands by private shrimp farming interests has caused inequalities in access to and control over commercial coastal aquaculture resources. Those who had access to political power—who were usually the already rich households—were the ones who gained access to

the ponds for shrimp, through rigging in the bidding processes, or through staking lands and clearing them. This has led to conflict between the rich and the poor who were unable to invest in shrimp farming and lost their access to natural resources. Conflict has increased to the extent that it has resulted in physical violence. Those who are poor sometimes poach the ponds of the rich to catch crabs, shrimps, and fish, but they risk severe beatings if caught by the pond's owners.

There have also been gender inequalities since it should be noted that only men were involved in shrimp aquaculture. According to shrimp-pond owners, since shrimp farming is a risky business and requires large amounts of capital, women are not allowed to participate in the business, either as owners or traders, and were totally excluded from shrimp farming. The only job available for them was to be hired to collect seaweed for shrimp-pond owners. Furthermore, due to the persistent biases against women influenced by the patriarchal values in Giao Lạc, shrimp farmers did not want to sign a contract with a woman. Women were therefore excluded from trading shrimp principally because it was more stable and generated more profits.

The introduction of tiger shrimp culture also made commodity chains more complex and changed their base from local to external. The tiger shrimp culture depends more on the external input suppliers and even external expertise. Owners of modified extensive ponds invested in the shrimp business to gain high returns, although experience in Giao Thiện has shown that this form of high profit seeking was not sustainable and was at greater risk from diseases.

The ecological consequences have also been severe. Loss of mangroves due to construction of shrimp ponds has had impacts on the diverse ecosystem services that the mangroves provide, such as the availability of resources for consumption, storm protection, and carbon storage. Since there was no forest between the dike and the sea, in 1983 and in 1986, Giao Lạc was impacted harder by big typhoons. The central dike was not broken but severely damaged. It was later repaired by the central government. Many houses were either blown away or collapsed and most shrimp ponds were destroyed in 1983. Loss of mangroves also had adverse impact on the livelihoods of the villagers, reinforcing and exacerbating social differentiation at the village level. This is due to the fact that different costs and benefits ensue for different members of the population.

Many ponds in Giao Thiện were abandoned 4 or 5 years after construction due to loss of nutrients and soil acidification resulting from insufficient freshwater exchange (Le Dien Duc 1996; Adger et al. 2001: 86). Meanwhile, the low-input system was more sustainable, although gaining a relatively smaller amount of profit than tiger shrimp farming. As the demand for tiger shrimp grows, the owners of shrimp ponds are shifting culture systems from crab-, seaweed-, and *tôm rảo*-based polyculture to tiger shrimp- and seaweed-based polyculture, and crabs are no longer cultured in these shrimp ponds. According to shrimp farmers, if crabs and shrimp are farmed together in the same pond, they compete with one another, and the profits from crab farming are not as large as those from shrimp culture. Important as well are the contaminants from untreated or inadequately treated wastewater, including waste of fish, shrimp, and clams or chemicals used in aquaculture.

Pollution can also result from the decomposition of fish and shrimp that have died due to diseases or bad weather. The development of intensive aquaculture in Giao Lạc was inadequate due to the lack of irrigation and treatment systems, contributing to pollution affecting the area's biodiversity.

4.3.2.2 Enclosure Movement 2: Mudflats and Clam Farming

In addition to the transformation of mangroves into shrimp ponds, intertidal mudflats have also been transformed under *Đổi mới*. As previously noted, in Giao Lạc, mudflats were used for freely collecting mollusks, such as clams, which could be consumed or sold. But these mudflats, like mangroves, have been subjected to private enclosure in recent decades. Some people in Giao Xuân commune first began farming clams by putting nets on their intertidal area. They had connections with Chinese traders and sold to the bivalve markets in China. In the early 1990s, due to the shortages of farming sites, people from Giao Xuân came to Giao Lạc and began farming clams in Giao Lạc's intertidal area because no one in Giao Lạc knew what clam farming was. Prior to 1990, the mudflats had been common property that everyone had access to. However, in 1990, the Giao Xuân people enclosed the mudflats and transferred use rights to themselves by setting up their own nets (see Fig. 4.1). After a year or two, the Giao Lạc people learned how to farm clams from the Giao Xuân people and also acquired use rights by putting their own net system out on the intertidal area. Part of the claimed lands was used to farm clams, and the remaining was used to catch natural clams.

The village officials responded by formalizing use rights to the enclosed lands by measuring the areas that people claimed as their farming sites, requiring the clam farmers to pay rent to the Commune People's Committee. National Decree 773-TTg also encouraged clam farming in the region. In Giao Lạc, a total of 136 ha were claimed by clam farmers as their private farms.[11] Whereas there were only 15 clam farming sites in 1993, by 2000, the number had increased to 94. These farmers could also later sell their use rights to somebody else, at an average price of VND 600,000 for a hectare. Yet despite the requirements that private lands should be required to pay tax, only 5 of 94 clam farmers paid one-half or even a third of the tax that they were supposed to pay.

Clam Livelihoods

Clams are usually farmed in February. Traders buy baby clams from other coastal provinces and then sell them to clam farmers in the commune for VND 3500/kg. In addition, some other tools, namely, nets and small rakes, are required. But clam

[11] The rental rates ranged from VND 600,000/ha for class I to VND 500,000/ha for class II and VND 400,000/ha for class III.

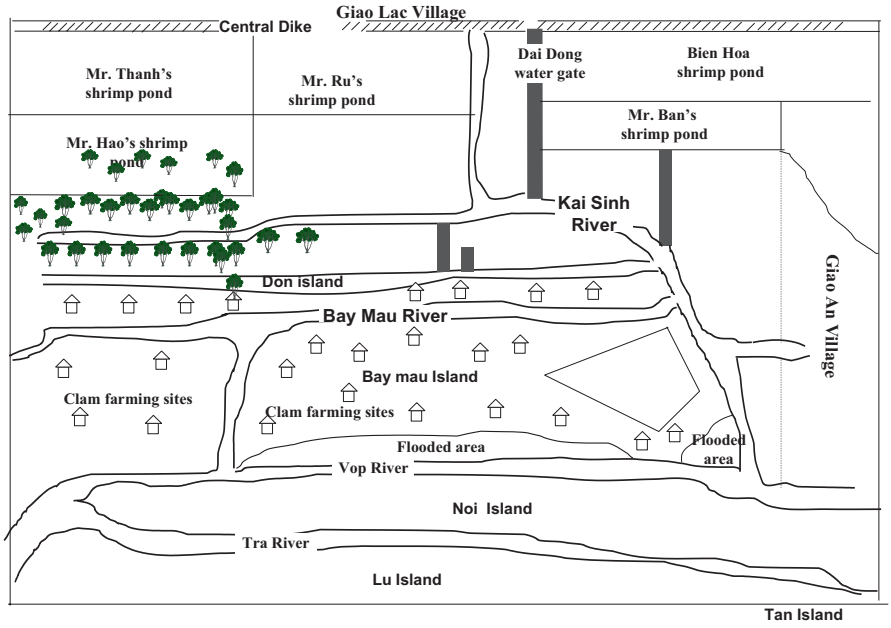


Fig. 4.1 Intertidal area of the Giao Lạc commune

farming is carried out in a much simpler and inexpensive way compared to shrimp farming. No expenses are required to construct dikes and sluices or buy feed, although farmers do need to build a hut on their site to watch for thieves. Theft is reported to have been increasing in the last few years principally because there is an increase in the number of drug users in Giao Xuân commune, and stealing clams is an easy and quick way to make money.

It is very common that several households share a farming site. The number of households sharing a site ranges from two to six, depending on the size of the farm, and, in this way, they share the capital, the management skills, the risks, and also the labor. But these shareholders do not always invest the same amount of money, so profits are divided according to the amount contributed. Money can be borrowed from a moneylender when clam farmers do not have enough capital to purchase baby clams, as well as from relatives and neighbors, particularly when clams die due to disease, so more baby clams have to be purchased. Shareholders take turns watching the clams at night, and during the day clam farmers who have sites close to each other watch the clams for one another so that all of them do not have to be constantly at their farming sites.

After 13–17 months, clams reach market size. In the past, clams were so cheap that villagers substituted them for rice. However, they have recently become a valuable commodity, about five times more valuable than in the past. In 2000, 1 kg of clams, which consisted of 30–35 clams, fetched VND 5000–6000. Clam farmers hire workers to harvest clams for them, and after harvesting, they are collected and

traded by local and provincial traders; collected clams are then traded to wholesalers in China by large vessels. Collected clams are finally traded to fish markets, supermarkets, restaurants, and hotels in China and other markets such as Hong Kong, Japan, and Europe after they are processed and packed.

Many people have become rich very quickly from farming clams since, in general, clam farmers earn much more than those who make a living from agriculture, in part due to the lax regulations on taxes and rent for mudflats. Although there are many who have become rich from clam farming, many others have faced bankruptcy after a crop loss. Mr. Khac, who was the first one from Giao Lạc to start clam farming, related his experiences in clam farming:

> I am a veteran and live on a pension of VND 520,000/month. In 1991 I had an area of three hectares. During the first year, I collected natural clams. After a year I sold them to traders who came from Đồ Sơn and Quảng Ninh, a place that is very close to China. These traders came to buy all clams from clam owners in the area. In 1992 I did not collect natural clams. I started farming clams, which were bought from collectors. I cultured them in February 1992 and harvested them in July 1993. My investment was VND 23 million and earned VND 137 million. I learned farming clams by doing. I did not take any training course on clam farming. While I was in the business, I created employment for many people in the commune. In 1994, almost all clams in Giao Lạc and Giao Xuân died due to disease and typhoons. I lost more than 40 tons of round clams (vạng tròn),[12] so I lost more than VND 100 million. Added to this was my illness and I soon stopped the business. I now gave my farming site to my wife's brother from Giao Xuân to farm clams and he was one of the most successful clam farmers in the region in 2000.

During the field research, most clam farmers raised the *méo* clams (*vạng méo*) and *giắt*, smaller clams that are used to feed domestic ducks, raised together to reduce risk.[13] It is said that the round clams are local, so they are not as exposed to diseases as the *méo* ones that are bred in Thanh Hóa. In 2000, many farmers lost their clams due to high rates of mortality, likely due to shortages of rain resulting in more saline waters. Additionally, immature *méo* clams might have been sick. Although the mature round clams fetch better prices than the *méo* clams, very few clam farmers could afford farming round clams. The reasons are twofold. First, the price for the baby round clams is higher.[14] Second, the round clams require a flat area and their ideal soil is one mixed with sand. Such an environment is difficult to find in Giao Lạc's intertidal area.

At the time of the field research, the mature clams of many clam farmers died due to disease. Thus, many traders lowered the prices, and they did not want to buy mature clams from clam farmers. The reason was that their partners could not sell these sick clams to customers in China. Meanwhile, clam farmers did not want to keep their clams any longer due to the disease. Consequently, 1 kg of the *méo* clams fetched just VND 3100, while in 1999 1 kg of the *méo* clams had fetched VND

[12] There are two kinds of clams. One is called the round one (*vạng tròn*) and the other one is called the "*méo*" (*vạng méo*). In the local language, "*méo*" means not round.

[13] According to Nielsen et al. (1998: 10), it is not possible to identify all bivalve species, especially small ones.

[14] In 2000, a kg of round clams cost VND 5500, while the *méo* clams VND 3000/kg.

4200, and many clam farmers lost their money. According to clam farmers, they would be very pleased to spend VND 1–2 million on any medicine for a farming site of 5 ha that could cure their clams, but the medicine has not yet been discovered.

Nevertheless, some farmers from Giao Xuân who had capital and experience in clam farming still gained large profits from the business. Because of these successful clam traders and farmers, many clam farmers decided to stay in the business, although they have lost large amounts of money. Young Son's story exemplifies this point:

> My father's family used to be one of the five better-off ones in Village 7 during the collective era. My father also had a share in a shrimp pond at the beginning of the 1990s. Later, since the pond's dikes were broken so often, he and his partners could not afford it both financially and physically so they sold their shares to their neighbours at low prices. In 1998 I got married and my father gave me a motorbike as a wedding present. I sold the motorbike for more than VND 10 million and invested it all in clam farming. I have a farming site of more than one hectare. At the beginning I did not share it with anyone. In 1999 I lost all of the money. At the beginning of 2000 I earned a little bit. I then spent almost 10 million, a major part of which was a loan, on baby clams in 2000. In March the majority of my clams died due to disease. It is said that these baby clams had been sick before I bought them from traders. In addition, I was supposed to pay VND 700,000/year for the rent. Later on, during the year I decided to ask a neighbour of mine to share the site with me. In this way, I thought that my neighbour would share the capital, labour and the risk with me. I hoped that I would earn some money by the end of the year. But when the harvesting season came, I did not earn any money, because all of my clams had died at the beginning of the year.

The fact that Son's father was one of the richest families in Village 7 during the collective era put him in a better position compared with most of his friends who did not have capital to start clam farming. Unfortunately, capital from his parents did not help him take up the opportunity associated with the liberalization period. Failure after failure cost him a fortune, and he did not have the courage to go back to the business after having lost such a large amount of money.

Consequences of Clam Farming

People have taken the mudflats, a common property, with access once open to everyone, and turned them into private property. The majority of those who have benefited are from Giao Xuân who enclosed all the good clam farming sites and left the bad ones for the Giao Lạc farmers. Since they had more experience and better farming sites, the Giao Xuân farmers gained more profits. When clam owners were asked why people from Giao Xuân could come and farm on Giao Lạc's mudflats, the answer was that whatever land is situated beyond the dike, including the mudflats, belongs to the district, so Giao Lạc does not have the right to exclude outsiders.

The intertidal area of 350 ha, to which access had been open to everyone, then became the property of those who had enough capital to invest in clam farming. The whole area was covered with nets and clam watchhouses. Consequently, the poor in particular were excluded; they had to go further to collect bivalves, not within walking distance. Ten or 15 people must gather together to hire a motorboat to get there,

which means getting up earlier and staying longer, and having to spend part of the money they earned to pay for boat rental. Those who could not afford the boat must stay at home, dependent on farming wet rice, which is enough for only 8–10 months of the year. This has made the poor households' lives more difficult. Giao Lạc is not an exceptional case in this respect. A similar situation was also observed in Nghĩa Hưng district, Nam Định province (Kleinen 2003).

Conflict between those who have the nets and those who have lost the resources has increased to the extent that it has resulted in physical violence. In mid-2000, the owner of a clam farming area in Giao Xuân beat a pregnant woman unconscious when he encountered her collecting clams in an open area, which he claimed that he owned. Through leasing of previously common resources, the rich have acquired the right to appropriate the common resources, disenfranchising the poor in the process. The poor did not even have the right to protect themselves when they were violently harassed. For example, charges were not filed against the man who beat the pregnant woman.

The process of enclosure of the intertidal mudflats has excluded many with a particular impact on female-headed households and girls. Like shrimp farmers, all clam farmers are men, while free collectors are usually women. The shift from collection to farms has left out the poor and female-headed households because they do not have any place to dig clams, leaving them even more marginalized. They have to work on resources owned by someone else, while the rich work on their own resources. Collectors are hired by the net owners to harvest farmed clams, which used to be freely available, for which they earn only VND 10,000/day, much less than they used to earn from collecting.

Such work can be dangerous as well. One night in December 2000, the cold weather resulted in shortages of harvesters, causing workloads to double. They worked from 5 in the afternoon of the day before until 5 in the morning the next day. For the 10 h, one harvested 200 kg of clams and earned VND 60,000. On the way back, since there was no boat to take them back to the dike, they had to walk in the water, which was up to their necks. Many of them became sick and consequently could not work the next day; some had unforeseen medical bills as well.

4.3.2.3 Enclosure Movement 3: Mangrove Plantation Project and Collection of Marine Products

In 1997, the Danish Red Cross assisted Giao Lạc to plant mangroves for the protection of sea dikes that would in turn protect rice lands and villages behind the dikes, as well as create a number of jobs in afforestation. The district cleared the clam farming site on Trong Island (Fig. 4.1) and enclosed an area of more than 300 ha for the mangrove plantation. Clam farmers, both from Giao Xuân and Giao Lạc, were informed in advance to harvest their clams before the project started, and, according to the Commune People's Committee, because these clam farmers had illegally acquired their lands and did not pay any rent, they would not be compensated. This pushed these farmers to Bảy Mẫu Island, located nearer to the sea.

The Giao Lạc Red Cross was selected as the main counterpart of the Mangrove Plantation Project on behalf of the Giao Lạc Commune People's Committee. In other words, the planted mangroves were supposed to be communal. One main household and another three supplemental households were chosen to plant each 5 ha of new mangroves. To qualify, the district required that the main household had to be a poor household with sufficient labor. The other three households were to be selected by the Giao Lạc Red Cross and other local leaders. For each hectare of mangroves planted, this group would be paid VND 360,000. However, in reality, very few poor households were actually selected to participate; the majority were middle or upper-middle households who were typically the relatives and friends of village heads. Guards were hired to protect the newly planted mangroves from collectors. It turned out that all guards were the relatives of the head of the Giao Lạc Red Cross.

After the planted mangroves were grown, the quantity of baby shrimp and crabs increased, as the marine creatures travelled from the ocean to the mangroves for food, thus supplying larvae for shrimp- and crab-rearing households. As there were plenty of crabs, shrimp, and clams in the mangroves, collectors who were from Giao Lạc and many villages further inland tried to encroach on the mangroves to catch these creatures. However, these activities were considered illegal, and the guards told them that they might kill the mangroves while walking around looking for crabs or digging clams:

> When the mangroves were two years old, the guards did not let us look for these creatures in the forests. Nevertheless, we still went to the forests to look for baby crabs late at night when the guards were not around. Some of us were caught, but this didn't stop us, as a baby crab would be sold for VND 4000 at the beginning of the crab season. In the same year the village guards who are paid more than VND 350,000/month decided to sell tickets to those who wanted to collect marine creatures in the mangroves. For an entrance, each person had to pay VND 10,000. The guards kept the money for themselves.

This created resentment between the villagers and the guards because the enclosure of the protected mangrove forests had created authority over the resources by guards. The newly planted mangroves had opened up opportunities for many people, but not to all the villagers. The result was highly inequitable, as the poor could not afford to buy the daily entry ticket to the newly established communal mangrove forests to look for marine creatures. Those who were older than middle age, for example, could not go to the mangroves or the mudflats at night to look for baby crabs since they would not be able to see the small crabs.

Yet according to the donor, the Mangrove Plantation Project had benefited villagers in the communities chosen for mangrove rehabilitation, and they turned a blind eye to the fact that the project did not secure pro-poor outcomes as intended. Income-generating benefits were largely appropriated, in fact, by rich and upper-middle households. The Danish Red Cross decided to extend the project for a third phase (2001–2005), targeting, specifically, help for coastal communes, including Giao Lạc, in the Red River Delta to prepare for storm hazards. The program was also designed to strengthen the Vietnam Red Cross's capacity and skills to operate a single, well-coordinated disaster-preparedness program on its own in the region

after the project ended. The Nam Định Provincial Department of Agriculture and Rural Development was mandated to manage the area upon project end in 2005.

4.3.2.4 Enclosure Movement 4: Private Company and Coastal Lands

Between August and September 2000, Giao Lạc's residents heard of an ATI-Vietnam industrial shrimp farming project proposal from commune cadres. Headquartered in Tennessee (United States), ATI claimed to be one of the pioneer companies in the modernization of Vietnam through activities of transferring and providing high-technology services from the United States to Vietnam. ATI-Vietnam was founded in Vietnam in 1997 and had its representative offices in Saigon, Hải Phòng, Sơn Tây, and Lào Cai. ATI-Vietnam's main fields of activities were waste treatment, information technology, and oil and gas exploration and production.[15] The director of ATI was a Vietnamese-American (*Việt kiều*) businessman, Đinh Hữu Đức, who had been born in Giao Thủy District and returned to Vietnam to invest in petroleum exploration and exploitation.

Supported by the Vietnamese government, ATI-Vietnam expressed its desire to form a joint aquaculture venture with Giao Thủy District in the intertidal area of Giao Lạc and Giao Xuân, with a total area of 1500 ha. ATI-Vietnam's proposal was accepted by a high-ranking official, who argued that a coastal province like Nam Định would need a joint venture with a foreign partner so that it would be able to develop its entire intertidal area into a commercial zone. After the Provincial People's Committee received the signal from the central government, it requested the District People's Committee to assist ATI-Vietnam to carry out its aquaculture project as soon as possible at any cost. The District People's Committee assigned the New Economic Zone Department to be in charge of the ATI-Vietnam project.

According to district officials, the government planned to lease the intertidal areas in zones 3 and 4 to ATI-Vietnam for 50 years. According to a district cadre at the District New Economic Zone Department, this was a very large project, as the company intended to invest VND 90 billion. The plan was to invest in intensive shrimp farming with a production of between 2 and 3 tons/ha/year. The District People's Committee was asked by the Provincial People's Committee to acquire shrimp ponds, which the district had leased to shrimp farmers until 2010.[16]

As for the compensation policy, the Deputy Director of the District New Economic Zone Department (who was hired as a consultant to ATI) stated that the district would measure the value of the pond based on the condition of the pond and the creatures in that pond. More specifically, the value of the pond would be measured by taking the amount of money the owners of the pond had invested in the fry minus the pond's depreciation. Owners of the pond would then have two options.

[15] The information on the company is based on an interview with the head of the ATI-Vietnam office in Hanoi in 2000 and the company's Web site: *http://atechinc.com* and *http://ativietnam.com*.

[16] In fact, in Giao Lạc, shrimp ponds have been leased for between 3 and 5 years.

One was that the pond owners could receive cash compensation based on government rates. The other was that owners of the pond could become shareholders of ATI-Vietnam. However, as shareholders, they would not maintain any right to manage the pond. The company would become the leaseholder. Former pond owners had the option to be hired as wage laborers by the company. When the company harvested shrimp, profits would be divided among shareholders. When the Deputy Director was asked if clam farming sites would have to be removed, he said that the district would ask them to move without compensation because clam farmers had acquired their sites illegally.

Based on the information provided by the Deputy Director of the District New Economic Zone Department, the company would have to pay VND 13 billion/year to the government according to the government's land law after year 10. According to him, this price was very low. When the Deputy Director was asked if the district would keep the newly planted Red Cross mangroves, he stated that the Provincial People's Committee had sent the district a letter to request the district to protect the forests only until the Danish Red Cross mangrove plantation project came to an end in 2000.[17] According to district officials, the forests would be mature by the project end and therefore ready to be harvested.[18] The plan was to convert the mangrove forests into shrimp ponds after taking possession.

The Deputy Director also projected that the loss of the mangrove forest would not affect the central dike since the company, as part of the contract, would have to construct the remaining part of the new 10.5-km seawall lying beyond the mudflats, and this new seawall would protect the central dike. It was also mentioned in the letter No. 111/VP3 the Provincial People's Committee sent to the District People's Committee on September 13, 2000, that the company was supposed to replant mangroves in the outer area beyond the intertidal area to compensate for the area that it would convert into shrimp ponds. It is somewhat surprising that there was no land to plant mangroves out there, and the provincial officials were aware of this fact. However, it was still mentioned in the letter so that the Danish Red Cross could not blame them for the failure in the protection of sea dikes and other assets of coastal dwellers if the aquaculture project was implemented.

The Deputy Director of the District New Economic Zone Department asserted that ATI-Vietnam would also establish farms to create thousands of jobs for the villagers. He argued that if shrimp ponds in zones 3 and 4 were leased to 20 shrimp farmers until 2010, job creation would amount to four jobs per pond, for a total of 80 jobs. These shrimp farmers would also likely hire other labor, for such things as seaweed collection. The lease money from the shrimp ponds was to be additional revenue that could be reinvested into the community for such things as infrastructure, schools, and health clinics. The villagers would still have the rights of access and use to the intertidal resources. The contract with ATI-Vietnam, however, would

[17] The project was originally designed for the first phase (1994–1996) for five coastal communes of Thái Thụy district, Thái Bình province. The second phase (1997–2000) was designed for Tiền Hải district, Thái Bình province, and Giao Thủy and Nghĩa Hưng districts, Nam Định province.

[18] By the end of 2000, the mangrove forests were 3 years old.

only offer the opportunity for villagers to work as wage laborers. Surprisingly, the Deputy Director did not even know what jobs the company would create or what type of activity the company intended for the area beyond the shrimp ponds. His guess was that the company might build a fish sauce-producing factory for export or livestock food-processing factory. He believed that building the seawall alone would create employment for many villagers. However, no one knew if all these plans would be carried out by the company.

However, no one in the village supported the project because it was thought to be a private project, rather than a state joint venture. All believed that if the project were implemented, the mangrove forests would be destroyed by converting them into shrimp ponds using intensive aquaculture and polluting the entire area. More importantly, they would not have the rights of access and use to the intertidal resources, consequently losing their primary source of income. If the project had been carried out, it would abolish all rights of Giao Lạc's entire intertidal resource base depriving thousands of households of their livelihoods, leaving them only the possible work as wage laborers.

Villagers were determined to fight to the death for their livelihoods.[19] On October 2, 2000, the Deputy Director of the District New Economic Zone Department invited all shrimp-pond owners of Giao Lạc and Giao Xuân to meet with the Director of ATI at the Giao Lạc's People's Committee. At the meeting, the Deputy Director gave a long speech on the ATI-Vietnam project, intentionally speaking until the meeting's end, and therefore not allowing an opportunity for the shrimp-pond owners to participate. Reacting to the Director of ATI's personal wish to "return to his native district to help local people have a better life," one shrimp-pond owner stated immediately: "If you would like to help us, please leave us alone." It was reported that the conflict between shrimp farmers and the Deputy Director of the District New Economic Zone Department almost resulted in a fight.

All the Giao Lạc and Giao Xuân villagers rejected the ATI-Vietnam project. Given this opposition, the company was advised by the Government of Vietnam to withdraw its proposal. The central government had also signed an agreement with the Danish Government that incorporated terms and conditions linking Danish Governmental support to environmental protection and poverty alleviation in Vietnam. Sustainable administration of coastal zones and protected marine areas were a focal point that provided an additional reason to cancel the private company contract.

The withdrawal of ATI-Vietnam revealed villagers could be proactive when faced with an external threat of enclosure. Commune members fought the provincial and district officials' decisions and more importantly against decisions of high-ranking government officials by taking a stance with ATI. They then made it clear that ATI representatives should leave since ATI assistance was not needed. When villagers met resistance to their demands, not only by ATI but also the Deputy Director of the District Economic Zone Department, they almost became violent.

[19] Interviews with the heads of 32 sampled households and group interviews.

This also reflects the commune's high autonomy and solidarity, especially when threatened by external forces (Cuc et al. 1993: 54, 74; Kleinen 1999a, b: 1991). Important as well is that, although the commune is still stratified, it also acts collectively to exclude outsiders from their respective areas.[20]

4.4 Conclusion

This chapter has explored changes in villagers' household economies under *Đổi mới* and their access to and control over land and coastal resources. The recognition of peasant households as autonomous economic units has resulted in the establishment of a private economy and the re-establishment of private businesses, thus changing the whole makeup of Giao Lạc. Rapid changes in access to agricultural land and other economic activities have transformed the livelihood of the villagers; households have diversified from agricultural incomes into sources of nonagricultural incomes, primarily from coastal resources.

But these changes have not always been evenly applied: Many more rich households benefited than poorer ones. In other words, the market liberalization period opened up new opportunities for households that were ready to work hard and were willing to take risks, but also had management and entrepreneurial skills and capital. The change in macroeconomic structure facilitated an acceleration of the accumulation process, thus causing further differentiation between those who could grasp the emerging market opportunities and those who were unprepared to do so.

The rich and the upper-middle-income households had better ability to exploit new opportunities associated with the liberalization period. More importantly, they were able to capture nearly exclusive access to the newly privatized coastal aquaculture resources. This further differentiated them from the other groups, namely, the middle and the poor households, who were simply unprepared to grasp emerging market opportunities due to lack of capital and labor. Once nearly exclusive access was secured, those better off were able to consolidate advantages and more firmly establish a superior standing within the commune economy.

The privatization processes particularly benefited those with connections to powerful local bureaucrats and party leaders who helped them gain access to coastal resources. For example, although the bidding process for shrimp ponds was technically open to everyone, only the rich, who had sufficient capital, labor, and management skills, and more importantly connections, were able to participate. Similarly, clam farmers could stake claims and avoid paying rent and taxes, if they had connections with commune leaders. Those collecting shrimp illegally with electricity also were protected by local leaders who encouraged and accepted bribes to turn a blind eye.

[20] For a similar argument elsewhere, see Ribot (2000).

Privatization of land rights has affected access to and control over coastal aquaculture resources and the way in which various groups of people manage the resources. In other words, enclosures have led to exclusions, resulting in inequality in household income distribution between varying classes, between men and women, or groups of people of different ages within the same commune. The poor, a social group who traditionally have been the most dependent on the local open-access coastal resources, have after *Đổi mới* become the social group with the least access to these resources.

During *Đổi mới*, women's access to resources has particularly been constrained, despite the fact that women have enjoyed more personal and professional freedoms since the Vietnam War, as discussed in the previous chapter. Yet women were still excluded from high-return occupations, such as shrimp and clam farming, due to the persistence of patriarchal norms at the commune level. In such a situation, female-headed households, women, and girls have been affected adversely. They have become victims of both environmental degradation and the privatization process. With the loss of the open-access mangroves starting in the early 1980s, the Giao Lạc women lost one of their most important sources of income. They were therefore more dependent on the open mudflats, which have also shrunk very quickly recently due to land claims by rich clam farmers.

Notably, conversion to private property also did not necessarily enhance sustainability. Market incentives have led people to harvest larger portions of coastal resources to increase profits or to intensify shrimp farming from integrated local systems using wild shrimp to high-input tiger shrimp farming. Destructive fishing gear using electricity have also been used by some villagers, resulting in damaged nurseries, impaired breeding and feeding grounds of estuarine species, and, more importantly, a decline in the catches of villagers who relied on these species for food and livelihood.

Local institutions are largely unsatisfactory in terms of ensuring fairness or the creation of local cooperative organizations and rules. Local government officials turned a blind eye to those using destructive catching gear, as long as they were offered bribes by these fishermen. Even an international NGO, who provided funding intending to secure pro-poor outcomes from the rehabilitation of mangrove resources, was not able to do so because local officials favored their own friends and family to receive contracts for mangrove planting.

However, although the commune is stratified and response to market demands has created differentiation, village members have acted collectively and successfully to exclude some outsiders, namely, a private company, who threatened to abolish their rights over their local resources. It seems that enclosures by outsiders are less tolerated than those by insiders. The case, nevertheless, shows how fragile are rights over local resources in the present system. No one knows if any new proposal for the organization of intertidal resource management will be proposed. Local rights over local resources could be abolished by the stroke of some government official's pen, unless the villagers are active in defending and consolidating such rights.

Why has *Đổi mới* not solved the problem of resource degradation and overexploitation, and why has uncertainty affected villagers in such an unequal manner?

One explanation is that the village community is not homogeneous, as evident in every era from the establishment of the commune to the present day, as discussed in Chaps. 2 and 3. In other words, communities are not bounded, autonomous isolates, waiting to adapt to a shifting set of exogenous environments (Durham and Painter 1995; Leach et al. 1999). On the contrary, communities are complex, conflict-ridden institutions composed of individual households that fiercely prize their economic independence (Sheridan 1996). Differential relationships of power within and among communities mediate the exploitation, distribution, and control of natural resources. The community itself involves conflicts between users over access to the commons, over the definition of property rights and law, and competition between different social groups within the community (McCay and Acheson 1990; Leach et al. 1995: 5–13). In other words, gender, age, wealth, and class all influence the ways in which villagers use and manage mangrove resources in Vietnam, leading to differential outcomes. The next chapter examines in more depth how social differentiation has affected access to and control over coastal resources and the resulting impacts on household livelihoods.

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Chapter 5
Social Differentiation Under *Đổi Mới* Reforms



Abstract This chapter explores how the market, combined with enclosures, has led to new patterns of social differentiation that have affected access to and control over mangrove resources. I discuss the ways in which various classes of people use coastal resources in the commune. The chapter identifies the mechanisms and the patterns of differentiation and whether these factors are the same or different from the ones that caused differentiation during the collective era. The chapter analyzes both the changing patterns and mechanisms of differentiation and the changing outcomes of differentiation in post-collective Vietnam due to the changes in macroeconomic structure.

Keywords Classes of people · Mechanism · Social differentiation · Pattern · Post-collective

5.1 Introduction

Rapid changes in local land-use systems, ownership, management of mangrove resources, and the institutional arrangements in response to national economic renovation reforms have deprived many poor households of their livelihoods, while opening up economic opportunities for many others. Different levels of access to and control over mangrove resources have increased inequality in household income, although agricultural land still remains equitably distributed among households. This chapter explores these processes and attempts to understand what factors differentiate households and how these factors compare with those that caused differentiation during the collective era. On this basis, the chapter sets out to achieve two objectives: (1) to use political ecology that addresses power and inequality to analyze the changing bases and mechanisms of differentiation and the changing outcomes and indicators of the process of differentiation and (2) to use the Giao Lạc case to better understand empirically how changes in macrostructures of state and

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economy affect local processes of agrarian differentiation in post-collective Vietnam.

The chapter begins with a brief discussion of the dynamics of differentiation during the collective era. It then discusses livelihood differences among rich, upper-middle, middle, and poor households, particularly in regard to access and use of coastal resources, such as shrimp and clams. The chapter finds that poor people's access to occupations that provide high returns has been limited by resources such as land and capital and by their poor health conditions. On the contrary, the rich and the upper-middle group had capital sources, labor, and management and entrepreneurial skills so that they had access to high-return occupations. The mechanisms and patterns of differentiation that shape these differences among classes of households are then examined to determine what the causal factors for differentiation are, including land assets, family cycle, labor capacity, and access to capital.

5.2 Measuring and Understanding Histories of Differentiation

It has been argued that widening gaps in income in post-socialist countries do not necessarily alter the process of differentiation, although its associated patterns change (Sikor 2001a, b). This research argues that, in the case of Giao Lạc, where the market economy has become more developed with productive resources and labor traded on markets, increasing income inequality has led to a change in the bases and mechanisms of differentiation, as well as the patterns of differentiation.

As discussed in previous chapters, the opportunities associated with the effective privatization of agricultural land and, later, the adoption by the district of new high-income activities through privatization of formerly commonly managed coastal resources have differentially affected the distribution of wealth and incomes among households. To understand how the rich have benefited from these changes and how the poor have suffered and why these processes of differentiation have happened, I use household surveys to explore what the differentiation looks like, and some explanations for it, including land, labor capacity, family history, family cycle, age, and gender.

To address the issues just mentioned, semi-structured interviews with the heads of 32 households were carried out in the year 2000. These interviews gathered information on household labor allocation and agricultural production, changes in household labor capacity, reproductive needs, landholdings, commercial aquaculture, and wealth. Information on differentiation under collective agriculture was obtained through interviews with elderly villagers and former leaders as a substitute for missing historical data. The author's own observations provided an understanding of the ways in which villagers gained and maintained access to, and control over, the newly privatized coastal aquaculture resources, and used agricultural outputs and production surpluses. I next provide a brief history of the roots of differentiation,

before moving on to the household survey data, and then explore theories for why differentiation has happened.

5.2.1 Differentiation in the Collective Era

As discussed in Chap. 3, differences in income and wealth among households during the collective era of the 1950s–1980s depended partly on the differing numbers of laboring hands and the family cycle, meaning the number of dependents in the family, which altered cyclically as children grew up and the elderly passed away (Luong and Unger 1998: 122, 123). Income differences among households also resulted from nonagricultural income sources, such as peddling goods and marine product collection. Although other factors, such as access to political power, endowment, individual drive, skills, and family background, influenced wealth among households, the family cycle tended to be the primary influence on household income and wealth (Sikor 1999: 230).

First: Since agricultural land was under the management of the cooperative, everyone earned almost the same work points/day because labor capacity determined the household's share of collective output (Sikor 2001a, b: 929). Households with more laborers were better off than those that had fewer laborers. The reason is that those with more labor earned more work points and as a result received a larger amount of paddy. Usually, young couples were the poorest because they had just started their families and their little children could not help them in the fields, but at the same time required food. In other words, the consumer/producer ratio changed at different stages in the family cycle (Chayanov 1966).

Second, more labor capacity enabled a household to engage in additional marine product and firewood collection for the "supplementary family economy." Earnings could be invested in gold, rice, or participation in the paddy rotating-credit association. In that way, they saved money and also earned interest. This helped households slowly accumulate assets or organize a wedding ceremony for their children.

Third, some politically connected cadres benefited more than others. Commune cadres' households had bicycles, radios, and furniture, such as tables and chairs. These cadres' households could afford all of these things due to corruption, while the rest of the commune had trouble making ends meet. The villagers had a saying: "Farmers worked twice as hard so that cadres could buy bicycles and radios." In addition, commune cadres could buy consumer goods at the distribution price, indicating that access to the state and political power played an important role. For example, only those who had access to political power could get access to income from peddling. One villager was a driver in the army and travelled from one province to another. He took advantage of his job to trade goods between provinces to earn profit. He sent cash home, and his wife bought gold, which enabled them to save to build a house. In the late 1970s and the early 1980s, his household was one of the better-off ones in the commune.

In sum, differentiation among households followed the family cycle, along with other factors, such as access to the state and political power. But it was the family cycle that tended to be the dominant mechanism that explained differences in household living standards in a prevalent and systematic way. Under the pre-*Đổi mới* system, the more advanced households were in the family cycle, the better off they tended to be.

5.2.2 The Patterns of Differentiation in 2000

This section explores how household wealth continued to follow the family cycle, while at the same time was determined by profound changes in ownership and access to productive resources. The year 2000 was more than a decade into the *Đổi mới* period, and the differentiation process of this period was already characterized by shifts in control over means of production and access to labor (White 1989). Through analyzing the distribution of control and access to productive resources, income, and wealth among households, the factors shaping and contributing to economic differences between households were examined. I also examined how much the differences between households followed the family cycle as they had under collectivization. Overall, the survey in 2000 revealed that households in the four economic groups representative of the village (rich, upper-middle, middle, and poor) differed in their access to political power, labor capacity, stage in their family cycle, asset ownership, and their incomes.

Analysis of distribution of household incomes revealed relatively high inequality in income.[1] Figure 5.1 shows annual cash incomes and home-consumption income per capita for each group. The figure shows, on a per capita basis, that the average rich household earned VND 4.9 million per member in cash income, accounting for 91% of the total income, while the average upper-middle household earned VND 2.4 million per member in cash income, making up 83% of its total income. The average middle-income household earned VND 1.6 million per member in cash income, accounting for 80% of its total income, while the average poor household earned VND 1 million per member in cash income or 62% of its total income. In other words, the average rich household earned almost five times more per member compared to the average poor household.

The sources of income across the household groups are shown in Figs. 5.2, 5.3, 5.4 and 5.5. It should be noted that the "mangroves" income category includes

[1] In surveys, home-consumption income was defined as including the value of all rice, vegetables, and marine products consumed by the households that they either grew or collected themselves. It should be noted that the production costs and the value of homegrown rice and vegetables, and home-consumed marine produce, were only roughly estimated. Income from Rotating Credit and Savings Association (ROSCA) was not counted and therefore not included in the analysis since no income was received from these associations by the households in the sample during the survey month, although almost all households participated in ROSCAs.

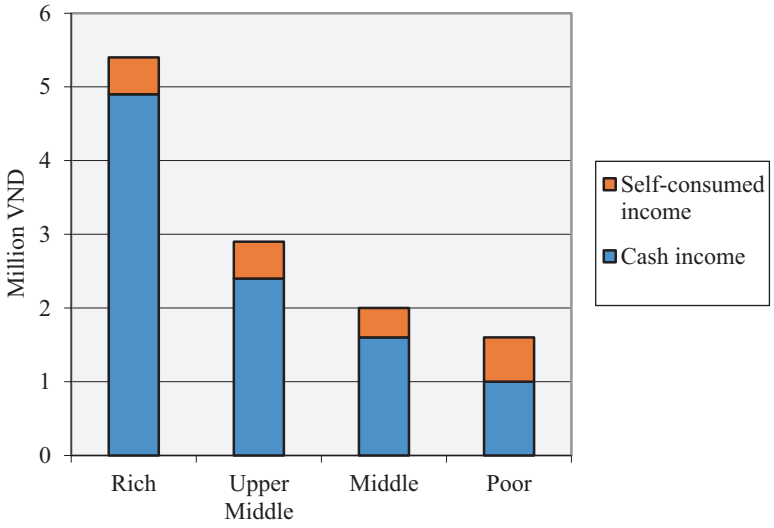


Fig. 5.1 Household distribution by cash and home-consumption incomes/year/capita in 2000

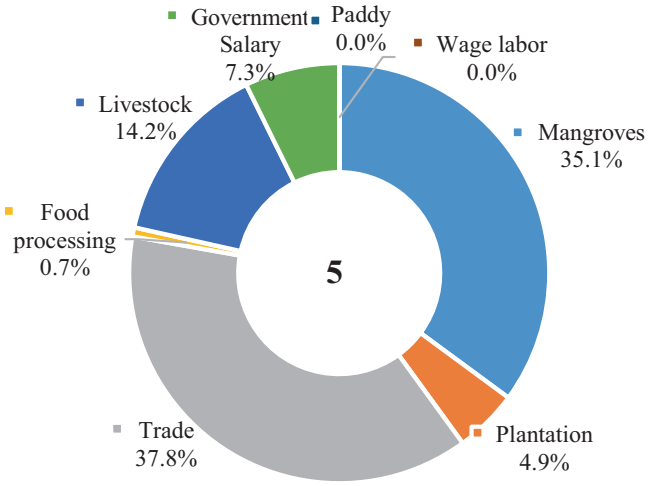


Fig. 5.2 Net cash income sources of the rich/year/capita in 2000*
*The number in the middle of the chart presents the average number of people in the households

plantation income, shrimp ponds, clam farming, marine product trade, and free collection. The figures reveal some interesting facts. For example, the rich households were the only group in the sample that did not earn income from sales of rice. By contrast, the upper-middle households earned VND 0.13 million/capita from the sale of paddy, accounting for more than 5% of the total income, while the middle households earned VND 0.16 million per capita or 10% of their total income, and

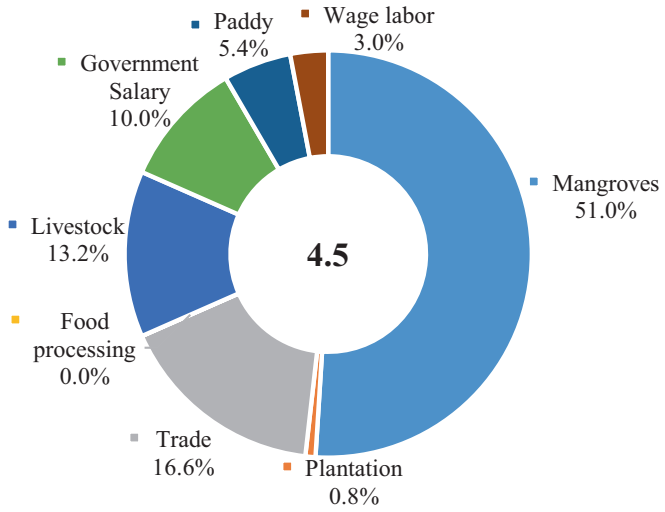


Fig. 5.3 Net cash income sources of the upper middle/year/capita in 2000*
*The number in the middle of the chart presents the average number of people in the households

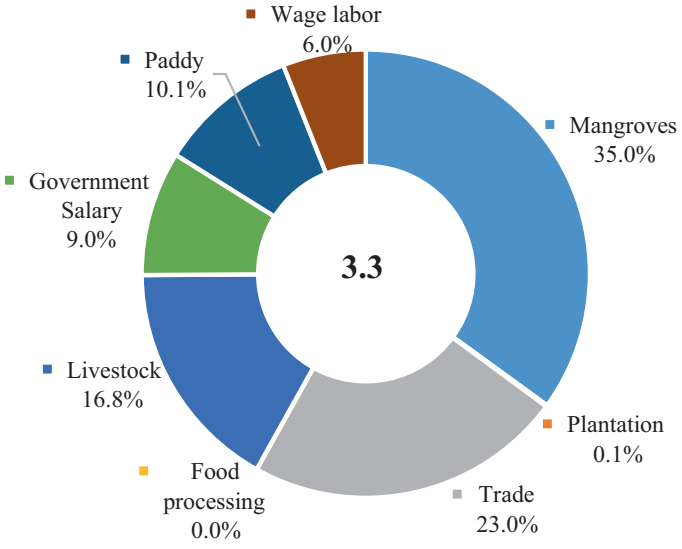


Fig. 5.4 Net cash income sources of the middle income/year/capita in 2000*
*The number in the middle of the chart presents the average number of people in the households

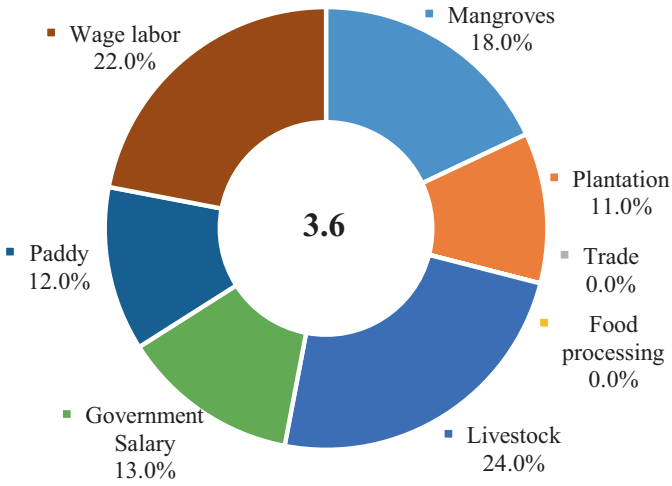


Fig. 5.5 Net cash income sources of the poor/year/capita in 2000*
*The number in the middle of the chart presents the average number of people in the households

the poor households earned VND 0.12 million per capita, constituting almost 12% of their total income. Luong and Unger (1998: 132) argued that most of the farming households in northern Vietnamese communes produce crops not for the market but for their own consumption and that they would "store the surplus grain for future use instead of selling it." The case of Giao Lạc demonstrates that all groups of households produced paddy for the market, except the rich who kept it for their own consumption.

The rich households earned the most from livestock at VND 0.7 million per member, accounting for more than 14% of their total income. The upper-middle households earned VND 0.32 million from livestock per member, making up 13% of their total income, and middle households earned VND 0.264 million per member, constituting almost 16% of their total income. The poor households earned VND 0.24 million per member from livestock or almost 24% of their total income.

Eleven households, or one-third, in the sample received salary income from the government. The rich had governmental jobs, such as teachers receiving retirement pensions and payments as families of war dead. This government income ranged from VND 92,000 to VND 700,000/month. The upper middle had jobs such as village cadres and mangrove forest guards and received salaries as veterans, local officials, and guards, with government income varying from VND 50,000 to VND 700,000/month. The middle and the poor were the two groups that did not have any governmental jobs, although they did have pensions and salaries as those who had contributed to the revolution. By contrast, the poor households earned the most from wage labor at VND 0.22 million per member, making up 22% of that group's total income. The middle households gained VND 0.09 million per member from wage labor, accounting for 6%, and the upper-middle households earned VND 0.08 million per member or 3% of the total income.

Each of the four groups also had non-farming income, and, as shown in the figures, the overall non-farming income was more unequally distributed than farming income.[2] This can be explained mainly by inequality of access to the newly privatized coastal aquaculture resources. The rich households earned the most from the mangrove-related resources at VND 8.7 million per household, accounting for 35% of their total income. The upper-middle households gained VND 5.5 million or 51% of their total income. The middle-income households earned VND 1.7 million, or 35% of their total income, and the poor households earned the least at only VND 0.8 million per household, accounting for 18% of their total income.

The distribution of mangrove and mudflat income also differed within the household groups. The rich earned VND 29.5 million from shrimp ponds, accounting for more than 31% of the income from coastal resources, while the upper middle earned VND 30 million from the mangroves, accounting for 41% of the total income. The middle and the poor did not own any ponds because they did not have capital sources, labor, or management skills to invest in shrimp ponds. The rich gained VND 9.7 million from clam farming, constituting almost 10% of the household income, while the upper middle VND 5 million, accounting for 7% of the household income, and the middle VND 4 million, comprising more than 18% of the household income (Fig. 5.6).

Regarding bivalve, fish, shrimp, and baby crab collection, the upper-middle group earned the most absolute income, at VND 19.8 million, although only accounting for 27% of the overall household income earned from mangrove-related resources. In contrast, the middle households earned VND 12.6 million, much lower than the earnings for the upper-middle group, but accounting for almost 58% of the total coastal resources income for the middle group. This was even greater for the poor, whose income was very low at 2.85 million, but this accounted for 89% of the total household income from mangroves.

The rich also earned the most from trading marine products, while the poor were the only group that did not engage in this activity due to less access to both capital and labor. Overall, the rich households in the sample earned VND 46.4 million, making up almost 49% of the total household income, while the upper middle's VND 16.8 million, constituted about 23% of their earnings, and the middle households earned VND 5 million, accounting for 23% of the total household income from the mangroves or the mudflats. The poor, on the other hand, simply were not engaged in this activity. In other words, the rich households earned about 2.5 times as much from trading in marine products as the other three household income groups combined.

Of the four groups benefiting from the mangrove plantation project and project assistance, the rich earned VND 6 million, making up 6% of the overall household income, the upper middle earned VND 970,000, accounting for a very small amount

[2] It should be noted that only cash income is included in the measure of household income gained from the mangroves and the mangrove-related resources because those products that were of great economic values were not consumed by households but were for sale. Instead, only those products that were low in protein and therefore fetched low prices were used for domestic purposes.

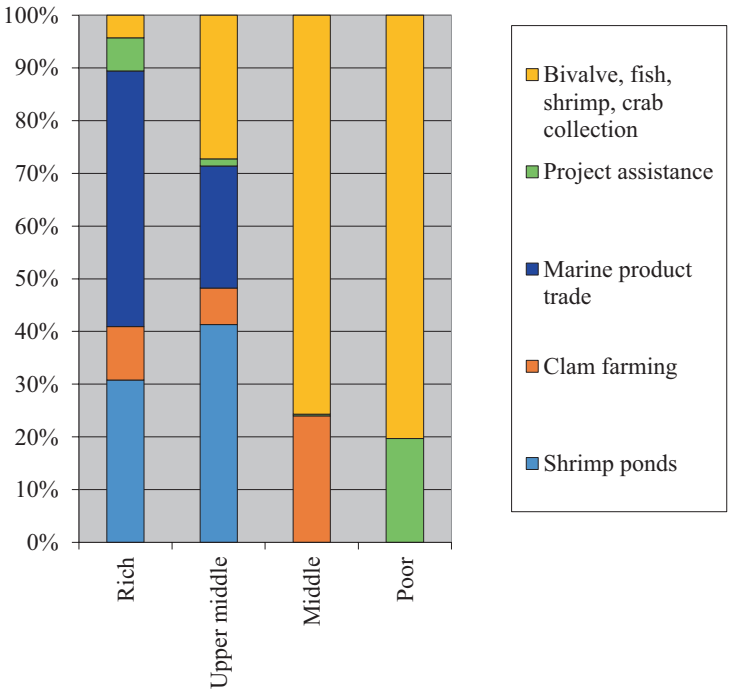


Fig. 5.6 Sources of household income from mangroves and mudflats in 2000

of the household income, the middle gained VND 50,000, and the poor VND 700,000, accounting for 11% of the total household income from coastal resources. In principle, the project was designed to provide the poor an opportunity to improve their living standards. In reality, very few poor households were actually selected to participate. The majority of households benefiting from the project were the upper-middle or rich households, who were the village head's relatives or friends.

In other words, across all forms of income from coastal resources, the rich households were now earning considerably more than the poor households from the mangrove and mudflat resource base that had traditionally served as the economic safety net for resource-poor households. In the absence of a new regulatory framework to counter transfer of resource access to richer households, *Đổi mới* has effectively resulted in the disenfranchisement of poorer households in relation to these important resources. This has been exacerbated by the emergence of commercial aquaculture and is consistent with other findings from Vietnam. For example, Adger (1999) explored income inequality in two coastal districts in North Vietnam (Giao Thủy and Hoành Bồ) and concluded that nonagricultural income sources, specifically aquaculture and remittance income, contributed more to present inequality than any other income source.

In summary, traditional income sources, such as agriculture, livestock, and state wages, likely contributed less to inequality. In contrast, aquaculture and non-farming

commercial activities contributed more, so I can conclude that these were the income sources driving inequality. How the rich were able to earn the most from mangroves and mudflats is explored in the next section, where I look at various explanations for how the rich got richer under *Đổi mới*, such as through access to such inputs as capital, labor, education, land, and other benefits.

5.2.3 Explanations for Differentiation

The relationship between labor, control over land, access to capital, and other sources of support needs to be explored, so that I can understand how the rich were able to get ahead while the poor were not. *Đổi mới*'s shift in emphasis to households made the success of food production and income-generating activities dependent on the head of the household and his capacity to grasp new opportunities provided by expanding markets. Production strategies were heterogeneous and differed by households and, unlike in the collective era, did not depend on the number of the household members. Rather, those households that had access to income diversification sources were more likely to achieve high levels of rice sufficiency and to accumulate assets. I examine some of these key factors below.

5.2.3.1 Land Tenure

Agricultural land tenure tended to be relatively equal among households. The commune's collective continued to control the allocation of rice fields, and every household was entitled to a share of the commune's rice fields, based on the number of members. As discussed in Chap. 4, each household received an allocation of 1.2–1.4 *sào* per household member. The more members a household had, the larger the area of paddy fields it was allocated. The commune would adjust allocations of rice fields every 15 years in response to changing household and commune demography, but this had not yet been done at the time of the fieldwork. Thus, the households in our survey owned the lands they had received at de-collectivization, no more and no less. There was also no difference in landholding between those households, including a cadre and those without cadres. Further, access to rice land is not a significant source of differentiation in Giao Lạc because of the relatively low return on labor. Rich people simply did not invest much in this activity because it was not their priority, while other activities were more lucrative.

In contrast to the allocation of rice fields, which was equal among all, households gained control over shrimp ponds through bidding for 3–5-year use contracts, which, as shown in the previous chapter, was rigged toward friends of cadres. This de facto privatization of formerly common lands opened up new economic opportunities for these richer households. Those households that were able to capture nearly exclusive access to, and control over, land for shrimp and bivalve culture became better off than those who were unprepared to grasp these new opportunities.

Households' control over land for shrimp and bivalve farming did not depend on a given household's labor capacity since, if the household had sufficient capital, they could hire non-household labor. Thus, households at all stages of the family cycle engaged in shrimp farming. Harvesting shrimp did not require many people, and shareholders of shrimp ponds could do the job themselves. Nevertheless, shrimp-pond-owning households sought to hire additional labor for harvesting seaweed, improving or just watching the pond. Therefore, the business depended on the physical strength, management skills, and access to capital and connections of the household head.

Figure 5.7 graphs the amounts of area of shrimp ponds owned by various household groups in the survey. As the figure shows, only the rich and the upper middle had shrimp ponds. The figure illustrates that 20% of the households in the rich group had an area of less than 1.0 ha[3] of shrimp pond, while 10% of the households in the upper-middle group had an area of shrimp pond of 1.0–2.5 ha. The figure also shows that 20% of the households in the rich group and 10% of the households in the upper-middle group had an area of 2.5–5.0 ha. In addition, 20% of the rich group's households had an area of more than 5.0 ha of pond for shrimp farming. The middle and the poor groups of households could not muster the required

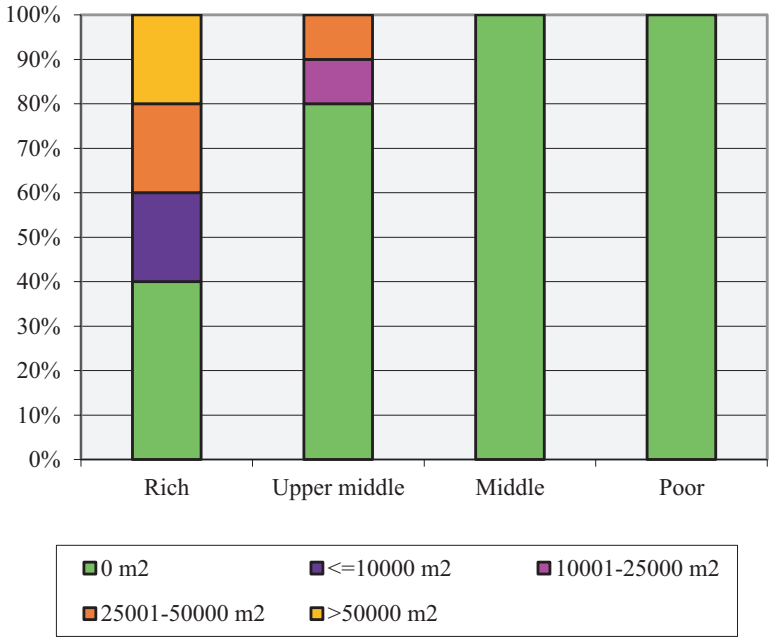


Fig. 5.7 Distribution of sample households by access leased to shrimp-pond areas in 2000

[3] 10,000 m^2 is 1 ha.

combination of access to capital, labor, and management skill needed to become shrimp farmers.

Apart from shrimp ponds, households gained rights to use formerly common land for bivalve farming through occupation and enclosure. Once occupied, they held use rights for the land even during the time they did not use it. Like shrimp farming, households at all stages of the family cycle were involved in bivalve farming. Even households that had only two laborers could also farm clams. Households could help each other by keeping an eye on their neighbors' sites during the day. At night, those who shared a site took turns watching the bivalves. However, harvesting bivalves did require a large number of people, and clam farmers had to hire in outside labor. The success of these household businesses depended very much on the physical strength, management skills, and access to capital of the household head. However, once all land suitable for bivalve farming had been occupied, additional households had no opportunity to claim new land for bivalve farming.

Figure 5.8 indicates that 20% of the rich group and 10% of the upper-middle group had an area of clam farming sites of 3.0–5.0 ha. The figure also displays that 20% of the rich group's households and 10% of the middle group's households had an area of clam farming sites of 5.0–7.0 ha, while 10% of the middle group's households had an area of more than 9.0 ha.[4] The poor group of households did not have any bivalve farming sites.

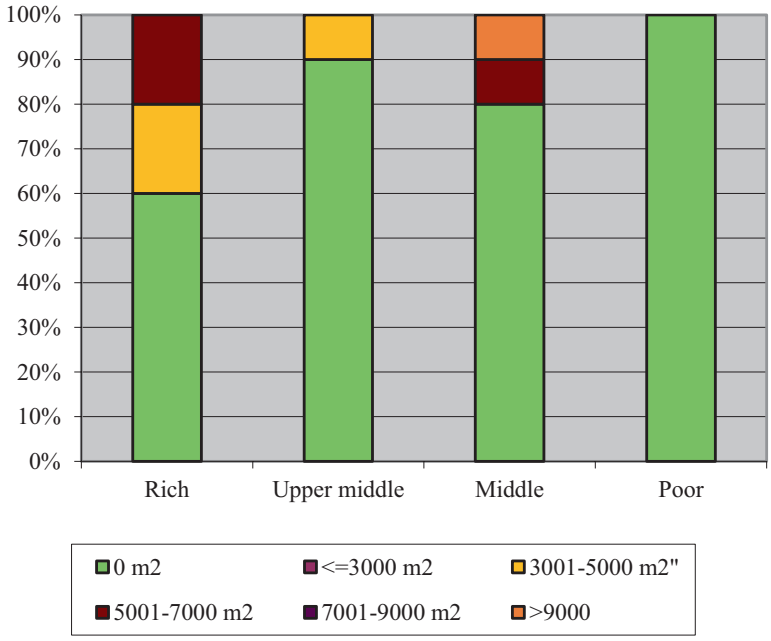


Fig. 5.8 Distributions of sample households by access to clam farming areas in 2000

[4] The rich households' sites were better than those of the upper-middle and middle households.

In summary, control over land determined a household's ability to engage in commercial aquaculture in the late 1990s. Access to the newly privatized coastal aquaculture resources caused inequality in household income distribution or widened existing disparities. Unlike in the collective era, the relationship between labor capacity and control over land for aquaculture was weak and depended more on access to capital, as is addressed next.

5.2.3.2 Access to Capital

Based on the information provided by the interviewed household heads, capital was considered the most important factor in differentiating the households who could benefit from *Đổi mới* and those who could not. According to all shrimp farmers in the commune, no one could borrow money from the Vietnam Bank for Agriculture because shrimp farming is considered a risky occupation by the government. In addition to the money farmers could mobilize through family connections, they had to borrow money from local moneylenders. The small sizes of bank loans, often with a maximum of VND 5 million, were also insufficient to invest in shrimp farming since developing a pond for tiger shrimp culture costs VND 150–200 million. Further, the procedure was too complex and time consuming, particularly in terms of the time required to obtain a signature from the commune cadres to be eligible for the loan.

During the time of the fieldwork, there were two big moneylenders in Giao Lạc. These people had relatives who were traders elsewhere in the country and sent them hundreds of millions of VND for lending to earn interest. Because everyone knows everyone else in the commune and the borrower could not run away with the loan, most of the time moneylenders lent their money to shrimp farmers. One can see that the government and local moneylenders had quite different views on commercial aquaculture. The government believed that shrimp culture was a risky occupation, while moneylenders believed that shrimp farming had potential. The moneylenders felt that this was the only local occupation capable of generating large profits within a short period of time.

Table 5.1 accounts for the households that borrowed during the survey year and had been in debt in the previous years, showing that households in the poor group

Table 5.1 Situation of indebtedness of households[a]

Type of household (no. of households)	Average amount of debt/household (million VND)
Rich (2)	4.0
Upper middle (5)	3.9
Middle (5)	3.2
Poor (4)	5.6

Source: Field research, 2000

[a]The amount of debt means the money that the household had borrowed long in the past. It should be noted that 2000 was an average year with no huge loans

borrowed the highest amount of money (VND 5.6 million per household). The table also shows that on average the poor were indebted for more than five times their annual incomes, while the rich were indebted for less than 1 year of annual income. This means that the rich could easily pay back their debt, but it is very difficult for the poor to do so. If they borrowed the money from the bank, it is likely that their house, valuable assets, and house plot would eventually be confiscated by the bank. Nevertheless, this did not happen during the time of this field research.

There was a difference among the four groups of households in terms of spending the loans. Two households in the rich group had spent the money on aquaculture and trading marine products, while the majority of households in the poor group borrowed money to pay back their debt in the previous years. Only one household in the group spent the money on animal husbandry. Three households in the upper-middle group borrowed money to invest in shrimp and clam farming, trading crabs, and other businesses, while the other two spent the loan on building their houses. The majority of middle households borrowed money to invest in clam farming, gill nets, and the purchase of residential land to build a house. The rest of the group spent the loan on animal husbandry.

5.2.3.3 Family Histories

Family backgrounds and labor capacity played a very important role in successful shrimp and clam farming. First, family bonds help to mobilize capital sources, which are considered the primary determinant in this sector, as previously noted. Second, family labor plays a very important role in shrimp-pond construction, especially at the start-up stage, when capital input is stretched thinly and the majority of shrimp farmers did not have enough money to hire laborers to work for them. Last, it was felt that it was better when the pond's shareholders were brothers, in terms of trust levels, since one was not afraid of being cheated by his sibling, and brothers as partners were more likely to stay together during tough times.

Based on the information provided by the interviewed household heads, education also played a very important role in the household economy and should be considered a significant factor differentiating households. According to those interviewed, education helped one to better take advantage of new opportunities associated with market liberalization. This was and is of great importance as Vietnam transforms into a market-driven economy. In addition, education helped one gain a good base of technical knowledge for aquaculture, such as how to identify the best types of soil for clam and shrimp farming. Education also helped one learn from past experience. More importantly, it encouraged him to learn from his friends and those experienced in aquaculture so that he could draw lessons for himself. In other words, education helped one learn "how to calculate" with a certain entrepreneurial mindset and grasp the opportunity when it comes.

Analysis of the educational level of the household heads revealed that the mean number of years of school attendance of household heads of the rich group was the highest at 8 years, the upper-middle 7 years, the poor 6 years, while the middle was

the lowest at 5.5 years. Despite the importance attributed to education, it is interesting to see that the mean number of years of school attendance in the poor group was higher than that of the middle group, and yet the difference in household cash income from mangrove resources was remarkable. The reasons for this are threefold. First, the majority of household members in the poor group suffered from chronic health problems. Thus, they were not able to fully participate in productive work. Second, they also spent a large proportion of their disposal income on their medical bills, which in turn limited the amount of capital available for investment in clam and shrimp farming. Third, there appeared to be a higher incidence of gambling in poor households, and this, too, was a significant drain on household finances. Two of the seven poor households sampled were headed by men in the 30s who worked very hard, but who spent most of their earnings on gambling, which left their households among the poorest in the village.

5.2.3.4 Family Cycles

The family cycle continued to shape household control over land, food production, and income generation, although in different ways than during the collective era. The sample consisted of households at all stages of the family cycle; there were ten young, fourteen middle-aged, and eight old households in the sample. For the purpose of analysis of this section, households can be classified as follows:

- Young households were those that had been established for between 4 and 12 years. They did not have children of working age yet, and the parents were between 27 and 34 years old.[5]
- Middle-aged households were the ones with children approaching or in the marriage age. The parents were usually 35–50 years of age.
- Old households were households that had children of marriage age or approaching it. They also included elderly couples. These households were 51–80 years old.

De-collectivization and market liberalization opened up new opportunities to young households that accelerated the process of generation of surplus. Most young families engaged in commercial aquaculture and collecting and trading marine products. In addition, they also kept pigs and ducks for sale. Six out of ten households engaged in wage labor in big cities like Hanoi and in neighboring communes. Another one shared his paddy tractor with another middle-aged household in the village and therefore earned extra income from the business.[6] Six out of ten young households had built their houses with flat concrete roofs. The remaining four households were trying their best to accumulate surplus so that they could build their houses as soon as possible. Two out of these four households were producing bricks themselves in 2000.

[5] Two young households in the sample included elderly mothers.

[6] This has already been included in the income data.

In other words, Resolution 10 provided new opportunities for households that worked hard, had more education and sufficient skills, were willing to take risks, and most importantly knew how to calculate regarding economic opportunities. Furthermore, young households did not have as many children as their parents did. All of this helped them speed up the process of accumulation. The younger the households were in the family cycle, the larger the areas of shrimp pond and bivalve farming site they cultured and, thus, the larger the income they earned from commercial aquaculture. Analysis of the area of shrimp ponds leased by various groups of households shows that young households farmed larger shrimp ponds (5–6 ha), followed by middle-aged households (2.4–2.7 ha), and then old households (0.36 ha).

This can be explained by the fact that the heads of these households had greater ability to quickly grasp market opportunities, perhaps a function of more education and more entrepreneurial skills. Heads of the upper-middle and the rich in the sample were younger compared to those poor and middle-income households. As a result, they were more willing to take calculated risks. Older households tended to have less labor when compared with middle-aged households, but nonetheless had more labor than young households. They tended to culture a smaller area of shrimp-pond and bivalve farming sites.

In contrast to shrimp ponds, the process of claiming land for clam farming was not done by auction. Clam farmers began to acquire the use rights to farm clams by simply setting up their own nets and claiming certain portions of mudflats as their own. Like shrimp ponds, the family cycle displayed a strong correlation with the area of clam farming. In sum, areas for shrimp and bivalve farming were strongly correlated with the family cycle. The younger a household was in the family cycle, the larger a site it was likely to farm

5.2.3.5 Labor Capacity

Labor capacity is considered one determinant of the success of shrimp and clam farming endeavors, as well as the ability to produce, save, and store wealth, and labor capacity differed among households. Labor capacity had been the primary determinant of shrimp-pond holdings at the beginning of the 1990s, when shrimp farmers had just started their business and therefore did not accumulate surplus to pay for hired workers. However, it was not the primary determinant of shrimp-pond and bivalve farming site holdings in 2000 because all of them could afford to hire villagers to work for them.

Many households had a capacity of three laborers, while the maximum capacity was five laborers (Table 5.2). Members of the poor group generally had fewer household laborers available and less ability to hire additional labor. The majority of households had two laborers who could perform hard work. In addition, they also had children who could help with household work, animal husbandry, and the collection of intertidal-zone products after school hours. Due to the emerging commercial aquaculture, members of extended families also helped each other mobilize

Table 5.2 Households characterized by stage in the family cycle

Household type	Average persons	Average laborers
Young	4.0	2.0
Middle-aged	4.4	3.3
Old	3.3	2.3

Source: Field research, 2000

capital sources and gained access to the newly privatized coastal aquaculture resources. As discussed in the previous section, wealthier and/or more entrepreneurial households relied on hiring additional labor, whereas poorer or less entrepreneurial households continued to rely on traditional labor exchange between households for traditional labor-intensive work, such as rice planting and rice harvesting. However, this traditional institution did not prove to be flexible enough to provide labor for the exploitation of the newly privatized coastal resources.

In summary, access to and control over the newly privatized coastal aquaculture resources introduced a new factor differentiating young and old households. It modified the influence of the family cycle and changed the bases and mechanisms of differentiation. The material discussed in this section suggests that changes in macrostructure accentuated income differences, thus altering the process of differentiation in places where the market economy has become more developed.

5.2.3.6 Gender

Gender was another influencer of social differentiation. This section analyzes the inequality between incomes earned by men and women to provide insights into how class and gender may influence household income distribution.

For example, female-headed households and households that had disabled husbands had a hard time making ends meet. They were also considered to "not to know how to calculate" which means that they did not display the capacity to generate income for their families. They either did not know what to do or invested capital and effort in the wrong business resulting in indebtedness. They also often suffered from a lack of labor capacity due to chronic health problems. These households usually had to sell their paddy for cash to meet household expenses, thus experiencing rice insufficiency later in the year. More importantly, they failed to obtain access to productive resources, such as the newly privatized coastal aquaculture resources, which had been open to everyone. Consequently, they often had to work on resources owned by someone else, and they did not own any durable consumer goods. Land allocation and privatization of coastal resources thus introduced a new factor differentiating increased cash income among households. Inequality between households increased, despite the fact that access to agricultural land remained equitably distributed (White 1989: 20).

Women tended to grow those crops that have little commercial value, with men in charge of those that have greater commercial value. For example, women were in charge of growing different kinds of vegetables, banana, and papaya, among others,

while men were responsible for planting and maintaining more valuable fruit trees, such as jackfruit, litchi, mango, and persimmon.

The largest source of income in the commune, trading marine products, was reviewed to look for any significant gender-related inequalities regarding income distribution and household quality of life. It is important to note that the question of class and gender distribution about other types of income was also asked, but no difference between women and men was observed. Only five households were involved in trading marine products among the sample households. Of these five households, three had both husband and wife engaged in trading activities. For the remaining two households, only the wives were engaged in the activity as their husbands suffered from health problems. It was evident that the disability of two of the five husbands served as incentive for their spouses to be more involved in such "survival tasks" as natural resource extraction and income generation through trading coastal products.[7] Based on the information provided by those household heads interviewed, the amount of cash earned from trading marine products varied between men and women (Table 5.3 below).

Table 5.3 reveals that women earning much less compared to their male counterparts engaged in the same activities. According to one trader, there were around 100 local traders in Giao Thiện, Giao An, and Giao Lạc communes. Each trader signed a contract with the owners of a shrimp pond. It is important to note that all of these traders were men. Women were excluded from this work principally because it was more stable and generated more profits. The situations can be reversed in other areas. For example, Nguyen (2002) conducted her fieldwork in Thịnh Long, a coastal fishing community in Nam Định province in 2001, and concluded that almost all traders were females, including one big trader. The difference between Giao Lạc and Thịnh Long is that Thịnh Long is a fishing community, where men's task is to go to sea and women stay ashore. Meanwhile, Giao Lạc is a coastal commune where both men and women are engaged in intertidal coastal product collection, and for the last few years, only men have engaged in commercial aquaculture.

The persistence of patriarchal values within a patriarchal rural society is one explanation for the inequality. As shown in Table 5.3, women earned much less than men, although they worked as hard and as long as men (8–10 h/day). A man who traded shrimp could earn up to VND 90,000/day, VND 33,000 for trading crabs, and

Table 5.3 Income earned by different groups of men and women

Gender	Activity	Total hour	Amount of cash
Male	Trading shrimp	8–10	VND 90,000
Male	Trading all coastal products	8–10	VND 40,000
Male	Trading crabs	8	VND 33,000
Females	Trading coastal products	8–10	VND 13,000

Source: Field research, 2000

[7] For the similar argument elsewhere in the world, see Leach (1994).

VND 40,000 for trading other marine products, whereas a woman could earn only VND 13,000/day. Due to the persistence of patriarchal values in Giao Lạc, shrimp farmers did not want to sign a contract with a woman. Consequently, her business was very unstable, and it depended very much on the catches of her clients, the majority of whom were collectors of lower-margin marine products rather than shrimp and crabs.

Furthermore, all owners of shrimp ponds and all clam farmers are men. They have better opportunities to earn much more than women, who, due to persistent patriarchal norms at the commune level, have been virtually excluded from the newly privatized coastal aquaculture resources. This explains why the majority of poor households were headed by women. Women who do not have the capital resources to gain access to higher-return activities received lower levels of income from the mangroves and the mudflats. These disparities contributed to inequality in the distribution of household income among groups due to increasing inequitable access to newly privatized coastal aquaculture resources.

5.2.3.7 Access to Political Power

In 3 of 32 households, the head served as the commune treasurer, the village head, and the Party secretary of the village simultaneously. The village head was in charge of collecting house-plot rent, agricultural-land taxes, irrigation fees, agricultural outputs on auctioned public land, contributions to the four funds, and other services provided by the cooperative. The Party secretary was responsible for calling meetings whenever it was necessary to inform the village's Party members about new policy and regulations or before an election at the commune level took place. The treasurer was in charge of the receipt, care, and disbursement of the commune's money. The term for these positions was usually 4 years.

The village head was paid more than 600 kg of paddy/year, while the treasurer received VND 1.4 million/year and the Party secretary VND 600,000/year. It should be noted that all of these three households were in the upper-middle class. Ordinary villagers said that the village head was corrupt and also used his power to force people to pay agricultural taxes twice. A key informant recalled:

> When he was the head of the village, he asked my household to pay agricultural tax in cash twice on the auctioned public land. At the beginning we did not remember, so we did it. When I came home, I made a double check on my tax notebook and found out that we had paid it twice. I brought the notebook to his house and showed it to him. He took a look at the notebook and then gave us the cash back. A number of households that did not keep good record of their tax notebooks had to pay the tax twice. In the past very few villagers kept their tax notebooks, because everyone trusted the cadres. In case they did, they did not record the date. So they were not able to argue with the cadres when needed.

In addition, when the Danish Red Cross mangrove plantation project started, the head of the village did not select the poor households as planned. In fact, he chose those households comprised of his relatives. The majority selected were rich or upper-middle households.

The commune treasurer was the village head's brother. He had been the co-head of Village 7 between the 1980s and the early 1990s. He was reportedly corrupt since he appropriated part of the contributions made by the village residents. After he was caught, he was not elected for the next terms. Somewhat surprisingly, his brother was his successor, who later did the same thing during his terms. During the time of the fieldwork, the treasurer was reportedly not corrupt simply because he did not have any power. However, being the heads of the village for such a long time enabled the two brothers to earn enough to be in the upper-middle class in the village.

Other cases from outside the sample revealed relationships between political power and access to sources of wealth. The former chairman of the commune exemplifies this point. He was the wealthiest man in the commune, and he had opened a gold shop in the 1990s. Reportedly, it was very difficult to open such a shop in a commune like Giao Lạc at the time for three reasons: First, it required starting capital of hundreds of millions of VND; second, a shop license that was very difficult to obtain was required; and third, shop guards were needed. The chairman used his power to get access to banks to borrow money and lent it at high interest to people who were in need. Furthermore, he reportedly participated in many gold and money rotating associations and was thought to earn large profits from this activity.

One might ask how he could have accumulated such a large amount of money and influence to start the gold business. It was said that he relied on the authority of his elected position to sell the commune's agricultural land along the main road to individuals in the 1990s. He argued that the commune needed money to pave the road with asphalt, although the villagers had contributed a lot of paddy for the construction of the road already. Instead of spending the money on the road, he and other commune cadres were thought to have kept the money for themselves. In 2000, only part of the road was paved with asphalt, while two-thirds of the road was still unfinished.

This was one of the reasons why in April 1999 between 400 and 500 villagers came to the Commune People's Committee every day to protest against these corrupt cadres and to ask the cadres to provide them the documents on the land issue and how they had spent the money. The cadres could not provide the protesters with any written documents. At the end of 1999, the former chairman was asked to step down. Interestingly, he was elected to be the secretary of the Giao Lạc Party cell. This turn of events greatly frustrated the villagers. According to them, corrupt cadres were not punished at all. Instead, they simply moved to higher positions.

5.2.3.8 Summary of Explanations for Differentiation

A correlation coefficient is a statistical measure of the degree to which changes in the value of one variable predict changes in the value of others. In positively correlated variables, the values increase or decrease in tandem. In negatively correlated variables, the value of one increases as the value of the other decreases. Correlation coefficients are expressed as values between +1 and −1. A coefficient of +1 indicates a perfect positive correlation: A change in the value of one variable will

Table 5.4 Correlation coefficients

	Labor capacity	Asset ownership	Age of household head
Asset ownership	0.501	–	−0.303*
Livestock ownership	0.100	0.102	−0.274*
Area of shrimp pond	−0.021	0.284*	−0.294*
Area of clam farming	−0.128	0.018	−0.331*
Investment in livestock	0.195	0.222*	−0.115
Investment in ROSCAs	0.115	0.280*	−0.201
Investment in consumer goods	0.072	0.274*	−0.061

*In Table 5.4, correlation coefficients are calculated at household level data. Significant correlation coefficients at the 10%, 5%, and 1% level are indicated by one, two, and three asterisks, respectively

predict a change in the same direction in the second variable. A coefficient of −1 indicates a perfect negative correlation: A change in the value of one variable predicts a change in the opposite direction in the second variable. Lesser degrees of correlation are expressed as nonzero decimals. A coefficient of zero indicates there is no discernible relationship between fluctuations of the variables (Wigmore 2020).

The data analysis shows that material asset ownership was correlated with areas for shrimp farming, while this was not the case for clam farming. Labor capacity did not bear any influence on the areas of shrimp or bivalve farming. Access to political power was associated with access to shrimp ponds, but not with access to areas of bivalve farming. In the case of bivalve farming, it was related with connections to Chinese traders (Table 5.4).

5.3 Conclusion

This chapter examined the changing bases and mechanisms of differentiation and the changing outcomes of the process of differentiation to discover how and to what extent changes in macrostructures of state and economy have affected local processes of agrarian differentiation in post-collective Vietnam.

Diversification from agricultural income into sources of nonagricultural income is clearly one major cause of rises in inequality. Analysis of the sources of income from mangroves and mudflats confirms inequality in the distribution of household income. This can be explained by high inequality in access to the newly privatized coastal aquaculture resources. The rich and the upper-middle households earn more from the mangrove and mangrove-related resources, since they had capital sources, labor, and management and entrepreneurial skills. The poor earn least of all because they had the least access to the resources due to less access to capital and labor. More importantly, they did not have access to alternative sources of income. This also demonstrates that these sources of income have ongoing effects that widen existing levels of inequality within the villages and the commune.

Household wealth was still correlated with the family cycle, but inversely to the way that it was under collectivization. In other words, widening gaps in income due to inequality in access to the newly privatized coastal aquaculture resources have led to changes in the bases and mechanisms of differentiation, as well as the patterns of differentiation. In 2000, areas under shrimp and bivalve culture were strongly correlated with the family cycle in Giao Lạc. The younger a household was in the family cycle, the larger the areas it farmed. Furthermore, areas under shrimp farming depended on material asset ownership to a large degree. Households that owned more assets tended to farm larger shrimp ponds. Although the gaps in income may not seem excessive, the newly privatized coastal aquaculture resources are largely in the hands of a relatively wealthy minority of people.

The new access policies on intertidal resources have laid seeds for continued rapid social differentiation. Market liberalization opened up opportunities for young households. The majority of them engaged in commercial aquaculture, collected and traded marine products, and engaged in wage labor. All of this helped them accelerate the process of generating surplus. Income and wealth reflected the influence of the family cycle. Access to political power also had an effect on household wealth among households.

Changes in property rights and access to coastal resources for commercial aquaculture and access to wage labor have changed the gender division of labor as well as the role of the women in the household sphere. Men were generally in charge of activities that generated much higher income. They also had a chance to participate in social activities, such as ROSCAs and commune and village meetings. Women were in charge of activities that either did not generate income or generated little income when compared to male-dominated activities. More importantly, they have lost their control over a key aspect of the family's budget since the intertidal area had been claimed by clam farmers, and consequently, they no longer had any place to go and dig clams. Without this source of income, they had less of a voice in the household planning. Important decisions were made by their husbands. In addition, they had fewer opportunities to participate in social activities when compared to men. By and large, the process of market liberalization has not benefited women. Despite the increasing affluence of Giao Lạc as a whole, the role of women has been diminished in many respects.

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Chapter 6
Conclusions



Abstract This chapter concludes the book by restating arguments and synthesizing the factors contributing to the varying effects of national economic reforms on the different economic and social groups of households in rural Vietnam's coastal regions. The book shows that understanding the root causes of mangrove degradation can contribute to new incentives and local institutions for sustainable mangrove management. The book elaborates an analysis based on the three topics of enclosure/property: markets/valuation and differentiation/equity can shed a great deal of light on improving other schemes of mangrove management such as certification, payments for environmental services (PES), or joint forest management both in Vietnam and Southeast Asia. The book concludes with the argument that only when close attention is paid to local contexts and histories can local-level studies contribute to a better understanding of the causes and consequences of environmental degradation and agrarian change as pointed out by political ecologists. Only when mangrove forests are managed in a sustainable manner will the poor and the most adversely affected, including female-headed households, women, and girls, have access to the mangrove and mangrove-related resources as a source of supplementary income. And as a result, social equity, growth of rural incomes, poverty reduction, and environmental protection can all take root.

Keywords Agrarian change · Incentive · Institution · Mangroves · Payments for environmental services · Joint forest management · Sustainable management

In 2015, in Thái Thụy district in Thái Bình province, next to Nam Định where Giao Lạc is located, 13,696 ha of mangroves was enclosed to establish a new wetland protected area within a project entitled "Conservation of Critical Wetland Protected Areas and Linked Landscapes (UNDP-GEF)". The project was implemented by the Ministry of Natural Resources and Environment (MONRE), under the auspices of the Global Environment Facility (GEF) through the United Nations Development Program (UNDP). The purpose was to establish two wetland conservation areas (WCAs): the Tam Giang–Cau Hai wetland in Thua Thien Hue province with an area

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of 21,620 ha and the Thái Thụy wetland in Thái Bình province with an area of 13,696 ha.

The project's immediate objective was "to establish new wetland protected areas and create capacities for their effective management to mitigate existing and emerging threats from connected landscapes." The project strives to achieve this by strengthening the systemic, institutional, and operational capacity for effective wetlands biodiversity management in Vietnam, nationally and at the provincial level. The mitigation of existing and emerging threats from connected landscapes was used as the rationale to promote the state mandated outcome which is conservation of critical wetland protected areas and linked landscapes, but it excluded the villagers of five coastal communes in Thái Bình from mangrove resources on which they had depended for generations.

In 2017, the Prime Minister of Vietnam signed the Decision No. 36/2017/QĐ-TTg for the establishment of Thái Bình economic zone consisting of 30 communes and 1 town in Thái Thụy and Tiền Hải districts. This indicated the growing mandate of the local government to industrialize and urbanize the Thái Bình coasts and transform the area into the economic center of the province. Xuân Hải Industrial Park is planned to be in two communes of Thụy Xuân and Thụy Hải of Thái Thụy district, the same as those enclosed for the establishment of the new wetland protected areas. It is planned to "reclaim" and develop 230 ha of wetlands outside the dikes, including 150 ha of mangroves, while building the industrial park.

This would definitely cause significant losses in the biological resources of the area. The Thái Bình Provincial People's Committee argued that developers also planned to plant 150 ha of mangrove forests elsewhere in the province that would compensate for the loss. The industrial park would create employment for thousands of people from the coastal communes. When local residents of the five communes were interviewed and asked if they would like to work in the park, the majority said that they had never heard about the industrial park and the new wetland protected area. Experience from elsewhere in the country showed that those older than 35 would not be allowed to work in factories, so they preferred to work in the mangroves. Conservationists said such land reclamation is the most serious threat to the wetland ecosystems since it requires large-scale draining and transformation of wetland and mangrove areas into land for settlement, industry, agriculture, or aquaculture. According to them, even when mangroves were planted elsewhere in the province, it would take more than 10 years to recover after the entire fauna in the mature mangrove forests had disappeared. The intertidal flora and fauna in the surrounding area may also be affected by the encroachment with severe impacts on the integrity and biodiversity of the Thái Thụy wetland ecosystem.

One might ask why the two such different projects—one for conservation by the central government and the other for economic development by the provincial government—were both approved at the same location. Is it a trade-off? Scholars suggest that protected areas are used to sustain biodiversity and ecosystem services, but they can create trade-offs spatially and temporally among ecosystem services that can affect the welfare of dependent local communities (Bryan et al. 2011). This

process is also called "green grabbing." It has taken years for the central and provincial governments to reach a compromise in which the area of the wetland protected area which is 5650 ha would be reduced by half. Its Management Board was put into operation in early 2020, while the industrial park has not started due to insufficient capital. According to the new demarcation, three communes, instead of five, have been dispossessed of their mangrove resources due to the enclosure for the new protected wetland area.

In response to the new policies imposed from above, in July 2019, a shrimp farmer in Thuy Truong commune, one of three communes enclosed for the new protected area, clear-cut a hectare of the mangrove forests adjacent to his shrimp pond to expand his shrimp farming area. Conspiracy theories circulated that the shrimp farmer was backed by a high-ranking official; otherwise, he would not have dared doing so. The case is still under investigation, with a rumor that he would not be put in jail at all.

What happened in Thái Bình province shows that in the twenty-first century different forms of enclosure of common lands either for economic development or conservation reveal contradictory policies for resources, i.e., mangrove forests in Vietnam as well as how a model of separating people and nature leads to social conflict.

6.1 Revisiting Giao Lạc

This book focuses on political ecology, under which, as I have emphasized throughout the book, we need to pay attention to the three topics: enclosure, market pressures, and resulting social differentiation. The book examined in detail the changes in mangrove resource use and management practices in a coastal commune in the Red River Delta in northern Vietnam since the precolonial and colonial periods. The behavior of various social groups toward nature is influenced by gender, class, age, social origins, and social status within the community. In the preceding chapters, I relied on empirical and ethnographic evidence to show how the environment at the local level has been constantly transforming and emerging as a result of land access and exclusion.

6.1.1 Enclosures

As pointed out by scholars who examined enclosure using political ecology, the development of shrimp aquaculture has caused massive ecological damage and disrupted livelihoods in Latin America (Vandergeest et al. 1999; Latorre 2014). It is important to note that labor in Vietnam is different than in regions such as Latin America with large-scale shrimp farming and much land cleared for shrimp farming, and importantly, also where external capital instead of internal capital flows in.

In Vietnam, shrimp farming is small scale with the neighbor-excluding-neighbor phenomenon more common. Most of the time, the rich and the upper-middle class have been able to capture nearly exclusive access to the newly privatized coastal aquaculture resources during the process of *Đổi mới*. This resulted in inequality in household income distribution, undermining community cohesion and solidarity, and the potential for collective actions to protect and nurture mangroves.

The evidence shows that user communities have been restricted by enclosure movements at different times in the history of the commune. Like elsewhere in the north of Vietnam, Giao Lạc has experienced radically different forms of enclosure. Under the French colonial government, guards were used to protect resources the state claimed for its own profit. During the revolutionary war period, conflict and distrust drove overexploitation of mangroves by competing factions. During the collective period, local cooperatives laid claim to fish and land resources excluding others. And during *Đổi mới*, economic changes encouraged richer households and outsiders to claim resources, such as shrimp farms and clam mudflats, with a mangrove replanting project benefiting some but not all. But in the end, the results have been similar with a loss of access to land, resources, and income by some in the community, most often the poor and women. The result of those enclosures has been the erosion of norms, rules, and collective actions to protect and nurture mangroves, driven by changing valuations of mangroves over time and increasingly for more distant markets.

These enclosures, particularly the most recent conversion of open-access mudflats and mangroves to private property, did not enhance sustainability, quite contrary to what some current theories of governance say about the benefits of privatization. To manage mangroves sustainably, more equitable policies are needed at the village and district levels. These policies would ideally take into account an array of factors. These include political power, economic heterogeneity within the village, institutional arrangements for allocating resources, the implementation of property regimes, conflict resolution, buffering of uncertainty, economic and social incentives, and cultural, historical, and geographical specificity of the local community. To make good rules, the government should understand local conventions and work to adapt them rather than simply impose new rules from outside or ignore local enclosures that exclude many. Yet state actors are not always effective, and experience has shown that states are not the only rule makers in respect to Southeast Asia land (Hall et al. 2011). This calls for the participation of non-state actors such as NGOs, donors, civil society, and farmers in the process of setting rules governing land access and exclusion at the local level.

Other negative consequences as a result of enclosures were noted in Chap. 4. A situation of virtually unchecked competition among households for scarce resources was the norm, resulting in degradation of the environment. Loss of mangroves due to commercial shrimp farming had adverse impacts on ecosystem services and the welfare of coastal communities. Pollution can result from untreated or inadequately treated wastewater, including the waste and chemicals used in aquaculture, and the decomposition of dead fish and shrimp due to diseases or bad weather. Inadequate development of aquaculture and the lack of irrigation and treatment systems

contribute to this pollution. These problems can exacerbate social differentiation at the village level, as the book has noted and which is later reiterated.

6.1.2 Market Pressures and Environmental Changes

Political ecologists reflect on market integration, commercialization, and the dislocation of customary forms of resource management, rather than adaptation and homeostasis (Peet and Watts 2004). As the chapters have revealed, the environment in Giao Lạc has been constantly transforming as a result of both ecological changes and social history. The felling of trees for sale as timber and firewood and forestland conversion into shrimp ponds were key factors responsible for the ongoing deforestation of coastal areas over the past century. The local valuation of mangrove products in Giao Lạc has increasingly been eclipsed by growing regional, national, and international markets that have shaped demand for certain types of products (large shrimp for export), while devaluing others (freely collected crabs and clams for local meals). These impacts of enclosures and valuation of mangroves for more distant markets have in turn led to social and class differentiation.

As the book has emphasized, mangroves have been valued in different ways at different points in time due to their diverse products/services and important roles both in household use and national development. It is important to note that these different valuations were often conflicting and consequently lead to more economically preferred values outweighing other less tangible noneconomic values. The case of Giao Lạc shows that different market pressures and different valuations have resulted in environmental change, disrupted livelihoods, and social conflicts. It is important to note that resource use is shaped by the institutionalized patterns of interaction among the individuals, households, extended kinship groups, and the formal and informal structures of governance and control. Local institutions are largely unsatisfactory in terms of ensuring fairness or creating local organizations and rules. This is due to the fact that power was in the hands of local officials who favored their friends and families in gaining access to fertile intertidal mudflats, shaping the new heterogeneity and differentiation in the commune.

6.1.3 Social Differentiation and Coastal Resource Use

Inequality is also a concern in political ecology. As has been argued in this book, resource use must be understood in terms of the varied interests and opportunities of different social groups and the changing relationships between these groups. Gender, age, status, and class all influenced the ways in which villagers used and managed natural resources. These social differences and intra-community relationships mediated the environmental effects of such factors as demographic and

external economic change. These social dynamics of resource control also influenced local conceptions of human–environment relations in day-to-day activities.

As discussed in Chap. 5, the economic liberalization process, while opening up economic opportunities for many, has not benefited the entire community. Rapid changes in the allocation of private leaseholds in the coastal area and the legalization of private businesses have had the effect of progressively reducing the access of poor families to these resources that had formerly been public access and provided an important safety net for households that otherwise would have sunk into poverty. Female-headed households and women and girls more generally have been the most adversely affected and are now victims of both environmental degradation and privatization process.

This study has presented a multifactorial explanation for the process of social differentiation at the commune level. While the most significant factor appears to be differing access to nonagricultural incomes, such as aquaculture, wage labor, and remittances, other factors such as family background, age, educational level, and the entrepreneurial skills of the head of the household also contribute to differentiation between different social groups of households. It is definitely from this heterogeneity that the dynamics that allow households and individuals to choose and decide their economic strategies arise in response to opportunities brought about by market liberalization.

The differentiation that emerged post *Đổi mới* was different than historical patterns. Differentiation among households had followed the family cycle during the collective era when land, cattle, and buffalo belonged to the cooperative. Although other factors such as access to the state and political power, consumer/producer ratios, endowment, individual drive, skills, and family background influenced the distribution of income and wealth among households during that period, the family cycle tended to be the dominant mechanism that explained differences in household living standards. Under the pre-*Đổi mới* system, the more advanced households were in the family cycle, the better off they tended to be. In addition, commune cadres and those with sideline jobs were among the better-off households. Nevertheless, there were few differences between villagers' houses, and differences in cash income were small.

Yet this changed in Giao Lạc in the post-reform period, as access to existing agricultural land was limited (as discussed in Chap. 4), while access to the newly privatized mudflats was flexible in the early 1990s. However, by the late 1990s, access to the recently privatized coastal resources was no longer flexible because the intertidal area had been occupied by those with capital and political power, as well as management and entrepreneurial skills. The labor capacity of households had no influence on the areas of shrimp or bivalve farming worked by a given household (as discussed in Chap. 5), but the size of those areas were more closely associated with access to capital, land, and political power. However, households' engagement in shrimp and clam farming also reflected the influence of the family cycle and age. The younger a household was in the family cycle, the larger the site it farmed. This might be explained by younger households' having a greater ability to quickly grasp emerging market opportunities. More importantly, they exhibited a superior

capacity to capture nearly exclusive access to the newly privatized coastal aquaculture resources (discussed in Chap. 4).

Furthermore, labor markets had also been quick to re-emerge during the economic liberalization process. These young households tended to have good access to supplementary labor. They could hire labor or seek employment outside the household. In addition, they had more education and a smaller number of children than their parents had in the past. All of this helped them speed up the process of accumulation. This differentiated them from the other social groups in the commune not prepared to take advantage of new opportunities in the *Đổi mới* period. Once they secured nearly exclusive access, they were able to consolidate their advantages and more firmly establish their newly superior status within the community economy.

By contrast, those households that were not willing or able to work hard did not have sufficient skills, and those whose heads were female or disabled had trouble making ends meet. Lack of access to resources, such as capital and the newly privatized coastal aquaculture resources, and lack of management experience prevented their access to high-return occupations, such as shrimp and bivalve culture. Instead, members of these less competitive households ended up working on resources owned by someone else. Despite agricultural land remaining more or less equitably distributed, the access to newly privatized coastal resources provided the basis for a period of relatively rapid income differentiation within Giao Lạc's economy.

There were significant differences between women's and men's opportunities in resource use and management in Giao Lạc as well. This was due to the persistence of patriarchal values within the community that result in differential access to power bases and support networks. Constraints on the status of women date back to the precolonial and colonial eras, although their roles and status were radically changed during the Vietnam–US War. The relative absence of men from the district during the war overturned traditional social relationships and implanted new values in the commune, where men had been always more respected and women disregarded due to the persistence of patriarchal values. Yet positive shifts in women's status in the wartime period did not result in large gains for them in the postwar era.

During the process of market liberalization, there were significant inequalities in women's and men's access to the most productive coastal aquaculture resources. Women have been virtually excluded from these resources because the constraints of patriarchal values limited women's access to opportunities in the market economy. Consequently, they were dependent on the mediation of men. In contrast, they were not marginalized from physical access to agricultural land. But despite relatively good physical access to agricultural land, Red-book property rights continued to be vested in the head of household only and the majority of these were men. In other words, women usually did not gain legal rights to the land they farmed and therefore they did not have the rights to sell or transfer use rights to others. The range of specific social and economic opportunities open to men and women has changed with recent changes in resource management. These have shaped the array of gender-specific resource interests and opportunities and the patterns of resource use in the commune. With rapid transformations in livelihoods, men were often in

charge of activities that had great commercial value, while women were responsible for those that had little or no commercial value.

6.2 Future Policy Options for Mangrove Resource Management

Institutional arrangements for resource use at the local level are complex. Neither state control nor private sector control alone can provide a viable solution to mangrove resource degradation. However, an alternative "community-based resource management" is also challenging. The reasons are twofold. First, the collectivization during the collective era has caused difficulties for application of community-based natural resource management because people still have bad memories of the collective time, thus resulting in bad influence on institutional arrangements for community-based natural resource management. Second, the local community itself is highly heterogeneous, and outsiders also use the resources. In such a context, how can sustainable mangrove management emerge at the local level and what appropriate institutional arrangements would encourage this? We next review a few emerging options.

6.2.1 Community-Based Forest Management

Although community-based natural resource management now attracts much international attention, it has not yet been widely implemented in Vietnam. The most pressing issue facing community-based natural resource management is tenure rights. Vietnam gave legal status to community forestry in 2004, and the revised Forest Protection and Development Law passed by the National Assembly in late 2004 acknowledges that residential communities are legal entities to which forests can be allocated. The new forest law allows villages and hamlets to receive forestry land, and the benefit-sharing law offers substantial economic incentives for participating in community forestry. However, communities that have been allocated lands do not fully receive rights compared with other organizations, individuals, and households. For example, communities were not allowed to allocate protection forest to members of the community, to change land-use rights, transfer, donate, lease, mortgage, to act as a guarantor, or to contribute money to investment on the value of land-use rights (MARD 2010). Thus, residential communities are not fully recognized as legal entities simply because they do not have assets. It is not surprising that Giao Lạc has not yet gained the means to effectively manage its tenure and resource access issues in a sustainable manner.

This issue has risen in the context of how to protect the mangrove forests newly planted by the Danish Red Cross in the 2000s. According to the head of the Giao

Lạc Red Cross, the commune should draft its own rules of access to mangrove resources. According to these rules, those who want to go to the forests to collect marine creatures and other visitors would have to buy tickets. The money collected from ticket selling would then be used to pay salaries for the guards, who would be nominated and then publicly selected by each village. All residents, however, rejected this idea, on the grounds that the needs of the community are highly heterogeneous. Moreover, collectors are not engaged in the same activities on the intertidal mudflats as they are in the forests. Thus, they would not end up earning the same amount of money, and, thus, it would be unfair to sell a single kind of ticket at one fixed price. On the other hand, if different kinds of tickets were sold, then guards would need to check whether people leaving the area had complied with the terms of their tickets, making enforcement much more complicated.

Local people suggested instead that the forest itself could generate a much greater amount of money and that rules on community-based mangrove management and protection should be developed. To make the rules effective, local people suggested that a Committee of Mangrove Protection should be created with the Giao Lạc People's Committee and the Giao Lạc's Red Cross members of the committee. They should be included in the drafting process and play a very important role in later implementing the rules. If this was implemented, the mangrove forests would be well protected, while bringing benefits to the local people who would help manage the resources sustainably. Poor, female-headed households and marginalized groups of people would be included in the process with a voice in decision making. The proposed mechanism would promote social equity as well as sustainable production. Nevertheless, local people still face a long process of negotiations before such an approach is accepted by provincial and national governments.

6.2.2 Payments for Environmental Services

It has recently been promoted by international and Vietnamese scholars that "blue carbon" and payments for ecosystem services (PES) might help save mangrove forests and contribute to the sustainability of coastal livelihoods (Schmitt et al. 2013; Locatelli et al. 2014; Tran 2017). However, the use of economic incentive mechanisms has not yet been widely applied globally for coastal resources (Quinn et al. 2017). PES schemes are currently under discussion in Vietnam for mangroves, but as Tran (2017) points out, due to political, legal, and policy issues on mangrove resource use and management, only aquaculture support services are the most promising for future payments for forest environmental services.

Shrimp Certification

Organic certification has also been advocated for governing the sustainability of coastal landscapes, where shrimp aquaculture and mangrove forests have historically been in conflict (Tran et al. 2012). It is also argued that certification networks could be more effective at containing negative social and environmental impacts

(Vandergeest 2007). The Vietnamese government has begun promoting organic production in integrated shrimp-mangrove farming systems due to food safety and certification standards imposed by developed markets in Japan, the United States, and the European Union (EU) (Tran et al. 2012).

In Vietnam, several models on organic certification have been applied. For example, the Naturland-certified organic production in shrimp-forest integrated farming systems in Cà Mau holds the potential to link farm-level management to landscape sustainability (Tran et al. 2012). This model was developed within the framework of the project on Mangrove Rehabilitation through Sustainable Shrimp Farming funded by SNV of the Netherlands in cooperation with the Minh Phú Shrimp Processing and Exporting Company to build areas for certified organic production. Households participating in the project were supported to plant mangroves in 50% of their shrimp farming area, receiving VND 500,000/year for each hectare of mangrove forests in their shrimp pond. In addition, each certified kilogram of shrimp earned VND 3000 higher than the usual market price. After 3 years of implementation, the project has helped 800 households receive the Naturland organic certification, 200 households have been paid as committed by the project, and 4100 shrimp farmers have been trained in shrimp-mangrove farming techniques, mangrove forest plantation and protection, environmental management, and rural environmental sanitation. Over 80 ha of mangroves were also newly planted along with 12,600 ha of mangroves protected from being cut down (Tran 2017).

However, to overcome conflicts of interest and legitimate representation in organic certification, the social and economic conditions of production also require regulatory intervention from provincial and local level government (Tran et al. 2012). It is also suggested that the role of shrimp producers should be redefined as partners rather than targets of regulation so that benefits beyond the scale of the farm will be achieved. As such, organic production in shrimp-mangrove aquaculture systems has the potential to be promoted as a means of conserving the coastal landscape and reducing the production risk of farmers as in the case of Giao Lạc. This requires the participation of governments, the private sector, social organizations, and communities in the planning and operation of the model. One might ask if shrimp certification could fix all the problem of enclosure, mangrove values, and social differentiation at the local level. I argue that any type of external valuation creates the potential for exclusions and differentiation.

6.2.3 Joint Forest Management

This book has argued that one of the main reasons mangroves have been in decline and mangrove replanting programs have not been so successful in Vietnam over the past century is that the benefits and burdens of mangrove protection are not shared equally. The real social pressures on mangroves have rarely been addressed in any replanting program. Other scholars point out that Vietnam lacks any direct regulatory response to mangrove degradation and loss (Orchard et al. 2015). Mangroves

are managed and protected through various forest, aquaculture, and conservation policies rather than through a specific mangrove policy (ibid.).

The most appropriate policy improves access to land and other natural resources for the poor and reduces ecological damage (Woodhouse 2003). To manage the mangroves in a way that benefits the most adversely affected, including the poor, female-headed households, women, and girls, more equitable and appropriate policies are needed at the commune and district levels. Such policies should be suitable for the local cultural and geographical conditions, benefiting the majority of the villagers, not just a small group of rich people. These policies would necessarily take into account such factors as political power, economic heterogeneity within the commune, institutional arrangements for allocating resources, the implementation of property regimes, conflict resolution, economic and social incentives, and the cultural, historical, and geographical specificity of local communities.

A final possible model for sustainable management is joint forest management, in which mangrove and mudflat resources should and would remain a publicly owned resource, but, as in many countries, could be leased out for limited periods of time to private individuals or corporate entities. A combination of national control, private leasing of some public resources, and community-based management therefore appears to be the most suitable strategy to promote elsewhere in the country. As the book shows, private management of existing shrimp farms is efficient and can provide ample lease revenue to the community budget. But mangrove forests should remain under communal management with communal access since these resources have traditionally served a critical role in providing employment and resources for poor households. Without this communal access, disparities between rich and poor households would very likely increase. The maintenance of a "mangrove commons" is critical for social justice at the local level.

By retaining the mangrove and mudflat resources as communal property, the regular input of both lease and gathering revenues from these resources could provide much-needed funds for use at the district, commune, and village levels. Revenues would likely be spent on commune infrastructure, such as schools, health clinics, and roads. Since mangrove gain can also reduce access, increasing the vulnerability of the poor and marginalized (Carrie et al. forthcoming), it is important to maintain the remaining open and newly established intertidal areas for collection of intertidal coastal products. The whole community should be involved in the management process. Certain guidelines need to be firmly established, e.g., not leasing out the mangrove forests to large outside companies to avoid enclosure. The commune (probably a cluster of villages) would oversee the management of the mangrove forests and be granted the right to require shrimp-pond farmers to post "environmental bonds" or pay money into a local fund that would be used to offset loss of income to other villagers as a result of mangrove habitat destruction. This would also provide a fund to be used to reclaim abandoned shrimp farms back into mangrove or some other productive and communally owned habitat. The community's households might be obliged to also contribute to this fund based on a sliding scale adjusted according to each household's income bracket (or net worth). It is known that the shrimp-pond reclamation process is a longer-term process that

requires significant local input and direction long after outside shrimp entrepreneurs have left the scene.

Understanding the root causes of mangrove degradation can contribute to new incentives and local institutions for sustainable mangrove management. I have made the case in this book that an analysis, based on enclosure/property, markets/valuation, and differentiation/equity, can shed a great deal of light on improving other schemes of mangrove management such as certification, PES, or joint forest management both in Vietnam and Southeast Asia. I argue that looking at enclosure/property is useful for understanding changes in local land-use systems, resource ownership, and patterns of mangrove utilization and changes in management practices over time. As the book shows, mangroves have been valued differently and those values have changed over time. Therefore, drawing on markets/valuation helps one understand how these value conflicts have played out in different ways for different mangrove users, with powerful users and market values generally winning over local nonmarket values. Chapters 4 and 5 demonstrated that the impacts of enclosures and valuation of mangroves for more distant markets lead to social and class differentiation, related to which is the issue of equity. Chapters 2, 3, 4, and 5 showed very clearly that not everyone has equitable access to mangrove products anymore. As such, many poor households, women, especially female-headed households, and girls have been deprived of livelihoods dependent on access to mangrove resources due to rapid changes in the allocation of private leaseholds and the legalization of private businesses. They have been the most adversely affected.

Current limitations to the large-scale conservation of mangroves are not due purely to a lack of biological or ecological knowledge but rather they are distinct policy and governance challenges that must be overcome. Appropriate policy improves access to land and other natural resources for the poor, reducing ecological damage (Woodhouse 2003). It is strongly believed that regulation is most likely to be effective where the government and NGOs can work with concerned local people to formulate, monitor, and enforce regulations restricting the spread of shrimp farming into sensitive ecological areas.

To promote the sustainable management of mangroves, policies and projects should take into consideration multiple uses of mangroves, particularly by the poor, and the impact of aquaculture on income equality and livelihood diversity that shapes household resilience and vulnerability (Orchard et al. 2016). In Southeast Asia, public and private partnerships are considered appropriate approaches to overcome policy challenges and foster the conservation of mangrove forests in the region (Friess et al. 2016). Only when mangroves are managed in a sustainable manner will the poor and the most adversely affected have access to the mangrove-related resources as a source of supplementary income. And as a result, social equity, growth of rural incomes, poverty reduction, environmental protection, and sustainable development can happen. This is the potential vision for Vietnam's mangroves but currently only a distant possibility.

The book shows that, in Vietnam and elsewhere, changing political economic conditions have shaped access and use of marginal lands and directly affected marginal people. Any sustainable mangrove management needs to take enclosure,

markets, and social differentiation into consideration as they have played out over the past century in Vietnam. Otherwise, the critical social pressures on mangroves would not be addressed and result in failure. While this study was based on field research in the Red River Delta, its findings have much wider relevance. This study has demonstrated that local-level studies cannot contribute to a better conceptual understanding of the causes and consequences of agrarian change without the research also being thoroughly grounded within the political, historical, and institutional context of that period. This provides a useful blueprint for other studies of resource use and management in other countries and other situations.

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Glossary

Glossary of Latin Terms	
Latin	**English**
Plants	
Azolla sp.	An aquatic fern used as green manure for rice
Seagrass	
Eleocharis dulcis	Chinese water chestnut
Gracilaria verrucosa	Seagrass (or seaweed)
Mangrove trees	
Aegiceras corniculatum	River mangrove
Avicennia lanata	A species of mangrove tree
Kandelia candel	A species of mangrove tree
Rhizophora apiculata	A species of mangrove tree
Sonneratia caseolaris	Crabapple mangrove
Birds	
Ardea cinerea	Grey heron
Pelecanus philippensis	Spot-billed pelican
Gallinago gallinago	Common snipe
Bivalves	
Cyclina sinensis	Chinese dosinia
Glaucomya chinensis	A kind of bivalves
Mactra quadrangularis	Clam
Meretrix lusoria	Hard clam
Solen corneus	A kind of bivalves
Crustaceans	
Metapenaeus ensis	Greasyback shrimp
Metapenaeus joyneri	Shiba shrimp
Penaeus merguiensis	Banana prawn
Penaeus monodon	Giant tiger prawn
Portunus pelagicus	Swimming crab

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Sesarma plicata	Mangrove crab
Scylla serrata	**Mud crab**
Uca annulipes	Fiddler crab
Fish	
Bostrichthys sinensis	Four-eyed sleeper
Harpodon nehereus	Bombay duck
Lates calcarifer	Giant seaperch (barramundi)
Muraenichthys gymnoterus	Moray
Mugil nepalensisreus	Grey mullet
Notopterus notopterus	Bronze featherback
Pisoodonophis boro	Rice-paddy eel
Pseudobargus gulio (*Mystus gulio*)	Long whiskers catfish
Glossary of Vietnamese Terms	
Vietnamese	**English**
ấp	Hamlet
Bần nông	Poor peasant
Ba khoán	Three-contract system
Bổi	Short rushes
Bừa	Harrow
Cá hàu	*Pseudobargus gulio*
Cá nhệch, cá bớp	Local fish
Cày	Plough
Cáy, còng	Types of crab
Chiêu	Mat to put on the bed
Chiêu mộ	Those who recruit people to participate in land reclaiming
Cỏ năn	*Eleocharis*
Cố nông	Landless peasant
Cuốc	Spade
Dân hàng xã	Communal population
Đấu tố	Public hearings and denunciations
Đệ nhất	The first
Đệ nhị	The second
Địa bạ	Property registers
Địa chủ	Big landowner
Đinh	Registered adult males
Đình	Communal house
Đói ăn vụng, túng làm càn	Necessity knows no law
Đóng dóc	Cycle of changing land-use types
Đổi công	Labor exchange
Đổi mới	Economic reforms
Công thổ	Public land
Chánh hương hội	President of the *hoi dong toc bieu*
Giáo dục	Education
Giáp	Age-group organization

Dân ngoại tích	Outsiders
Dân nội tịch	Insiders
Hàng sáo	Those who buy and sell husked rice
Hội đồng kỳ mục	Council of notables
Hội đồng tộc biểu	Lineage representative council
Hợp tác xã cấp cao	High-level cooperative
Hợp tác xã cấp thấp	Low-level cooperative
Huyện	District
Hương ước	Customary law
Khâu	Specialized tasks
Khoán 100	Contract 100
Khoán công	Workday contract
Khoán gọn	Package contract
Khổ chủ	Landlord's servant
Kinh tế phụ gia đình	Supplementary family economy
Lão	Elder
Lệnh	Command
Liềm	Sickle
Lý dịch	Members of the communal administration
Lý trưởng	Village's headman
Mẫu	A unit of area equal to 3600 m^2
Miếng	Piece of land
Ngao, *don*, *móng tay*, *ngó*, *vạng*, *vọp*, *giắt*	Bivalves
Nguyên mộ	*Chiêu mộ's* relatives or neighbors in the old village. They were the first ones present in the new village
Phó hương hội	Vice-president of the *hội đồng tộc biểu*
Phó lý	Deputy village headman
Phủ	Prefecture
Phú nông	Rich peasant
Phụ nữ ba đảm đang	Women of three responsibilities
Quốc gia công thổ	Public rice land
Rong công phóng điểm	Work-point standard used very loosely
Sào	A unit of area equal to 360 m^2
Sổ đỏ	Red book, a document that stipulates the area of land the household is allocated
Sửa sai	Rectification of errors
Tân mộ, *thứ mộ*	The poor who settled in the village after the *chiêu mộ* and *nguyên mộ*
Te điện	Push net using electricity to catch natural shrimp
Te thuyền	Pulling trap
Te ủi	Motorized boat that uses electricity to catch natural shrimp
Thảm	Floor mat
Thu mua	Purchase by the government
Thuổng	Hoe

Tịch thu	Confiscate
Tỉnh	Province
Tổ đổi công	Mutual aid teams
Tôm rảo	Natural shrimp
Tổng	Canton
Trâu	Water buffalo
Trưng thu	Requisition
Trung nông	Middle peasant
Vạng méo	Local clam
Vạng tròn	Round clam
Việt kiều	Overseas Vietnamese
Vụ chiêm xuân	Winter/spring crop
Vụ hè thu	Summer/autumn crop
Vườn-ao-chuồng	Garden-fishpond-livestock pen
Vườn ươm	Nursery garden
Xã	Commune
Xóm	An administrative unit within the *xã*, translated “village”

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