# CHAPTER VI CONCLUSION AND RECOMMENDATIONS

This thesis focuses on changing access to fishery resources in Stung Treng province. It documents the historical changes in fisheries policies which were not always implemented in this remote province, and how these changes affected people's livelihood. It also discusses how local communities have created political space to try and regain local control over management that has been lost through state-led privatization of fishing grounds. Field research was carried out to explore the power relations and effects of social and political conditions on the process of transformation of the resource management regime. Fish, next to rice, is one of the most important sources of food for sustaining people's livelihoods, especially for the small-scale and medium-scale fishers who are strongly dependent on these natural resources.

Since the 1980s, the Royal Government of Cambodia has employed the market-oriented policy mechanism for economic development in which various policies have been issued regarding decentralization and promoting the surplus product for the market-based economy. However, these policies have transformed into unclear property rights to private which legitimizes exclusive rights for commercial interest, and in so doing they have instigated conflict, in particular with the local fishers whose resources have been controlled and exploited by outsiders.

This chapter attempts to follow the objectives of the study and answer the research questions that have been described in chapter 3, 4 and 5. It is organized according to the following topics: (1) the main finding of study, (2) theoretical discussion of the findings, (3) significance of the study, (4) policy recommendations, and (5) limitations of the study.

#### 6.1 The Main Findings of the Study

The empirical evidence from the study site shows that access to fishery resources since 1990s became more chaotic with the foreseeable degradation of fish stocks reflecting the metaphor of tragedy of the common. In response to this crisis, fish tenure has been reformed by the government in late 2000 by which most the conflicted fishing grounds have been cut to local control as the solution. As a

consequence, the Village Fishery Community (VFC) was established with the recognition from the commune level while from the district level to the national level it is not officially recognized. The local authority claim the idea of community-based natural resource management (CBNRM) is very new to them, but it is not for their local communities. Technical departments such as Department of Fisheries (DoF) and the Ministry of Environment (MoE) have officially managed natural resources, but in reality little attention has been paid to isolated communities because of internal conflict, capacity limitation such as limited funding, inaccountability, and trained personnel. However, during my research in Koh Sneng village there are four major findings.

First, fishing grounds in Koh Sneng have attracted different groups of fishers which can be classified with two types of fishing practice, the licensed and nonlicensed fishers in Koh Sneng. The non-licensed fishers refer to those from inside the village and the seasonal fishers who set up their fishing camp next to village seasonally. The licensed fishers refer to target seine nets, the mobile seine nets, and the drifting gillnets who are from outside. The study found that fish tenure and fishing practices on each scale of fishers in the study area are diverse and adaptive in which various situated indigenous knowledge of the fishers is used in the complex ecology of river and its tributaries as well as its seasonal variation including the water regime, and seasonal migration of the fish. This has rendered them capable and skilled to develop and choose appropriate fishing equipments.

Second, throughout the process of privatization, these fishing grounds have been divided in to conservation areas for local fishers and commercial exploitation for seine net fishers in the same space allocated by the local elites reflecting the power relations among these stakeholders over access to fishing grounds. During the monsoon from May to September, fishery access to this fishing ground is open access because the water level is high from June to August until September, and the large fish species are dispersed during June-September (also see chapter 3). But from October to April, access to this fishing ground is totally controlled by the target and mobile seine net fishers when the water level is receding to its lowest. This conflicting access would be more appropriate to describe power relations, social relations, and patron-client relations in which the local fishers look at the seine net fishers as the clients of local elites who pay for their protection when they need support. Third, the relocation of fishing to the private exploitation has reflected the state power by recognizing the central concept of territoriality as a state function in creating and defending property regimes in order to enclose and claim valuable resources by changing its status. In contrast to state governance, Village Fishery Community procedures generated by NGOs and local communities as meant of asserting local community control over natural resources derived from a communal territorial claim. The political character of this VFC, which acts as non-state space, representing decentralized nodes of political and social power based on the control of resource and the construction of political space within the nation-state boundaries. In so doing, local fishers have responded with different strategies to create space such as consultation, negotiation, diversified occupations, organized meetings among themselves and organized networks with their neighbors for protest against the seine net fishers in their territory.

Fourth, the study found that the discourses associated with VFC, communal development and conservation has forced different actors in making the claims. For instance, the local elites or the commune council claim to collect revenue for local development through the resource privatization and household asset taxation and monopoly of local-made products, while the local villagers want to conserves the resources and share among their villagers. In addition, the villagers expect to maintain an equitable distribution of benefits within the communities by forming the VFC. This formation has been used as the discourse to promote exclusive access to private operators and fishers from outside the commune.

Throughout my fieldwork, people in Koh Sneng recognized that collective organization was necessary to address increasingly privatization of natural resources and to avoid the tragedy of the commons. They responded by strengthening their management systems to ensure that aquatic resources are managed more sustainable. The villagers in Koh Sneng argue that the formation of Village Fishery Community increases the village solidarity and social norm of reciprocity among the villagers which help to bridge the gap between the elites and the common people. The willingness and ability of villagers to adjust resource management strategies to meet the local conditions is one of the main advantages of decentralized natural resource management system. It encourages dynamic adaptive management and keeps regulations relevant.

In addition, the villagers have gradually absorbed and shared the aim of development until it has become a part of their lives. Their participation will contribute to the continuing process of formalizing the exclusive property right system, which can encourage the contestation and enclosure of the fishing ground. This is shown in cases of shifting or clarifying the relative open communal resource used by several groups and communities to an exclusive regime of a particular group. Also, with the strong legitimized process, the opposition of the excluded fishers may 5403 gradually change.

### **6.2 Theoretical Discussion of the Findings**

As I have mentioned in chapter 2, many natural resource managers have used the tragedy of the commons (Hardins, 1968), the prisoner's dilemma (Johnston 1989 cited in Bryant and Bailey 1997), and the free rider models to justify centralized natural resource management structures. Natural resource management theory based on assumption that individuals do not generally act for the good of the whole common interest and finally have resulted in a perceived need for impartial agent of authority with national or collective, rather than personal or local interests in heart.

These models of resource management have failed to consider institutional arrangements in term of the "imbeddedness" perspective (Polanyi, 1944). Polanyi also argues that human behavior is embedded in social relations whose decisions are not totally made with individuals, but also often conceptualize choices that result in collective choice rather than individualistic.

In Koh Sneng, the local fishers have existed before the French colonial (1863-1953) period and throughout history most of them have lived in or moved out of the village in the form of marriage or kinship relations. Therefore, most people consider village problems to be problem of themselves as individuals. These types of kinship and social relations of the villagers show that as long as the feeling of community remain strong, collective decisions are likely to dominate on the sense of belonging (Anderson 1983). This also implies that local management systems of the villagers existed throughout history based on their long-term practice of social norms of reciprocity which largely prevented them from the "tragedy of the commons".

On the other hand, by looking at the whole landscapes of the village from inside and outside, it also confirms the existence and use of a rich and diverse

landscape such as the forest, water and land in the village. The local fishers know a sample of place names that emerged and can be read as indicators of the social spaces created and maintained. This literature shows that local fishers have the opportunity to negotiate, contest and use their knowledge and social memory in claming access and manage the resource well (St. Martin 2001).

However, throughout the process of market economy transformation, the Cambodian government has not been particularly successful at reducing poverty for its people. Indeed, the residential fishers find it difficult to catch fish in public places compared with the most advance fishing assets from outside. The villagers found that most of the fishing grounds have been demarcated by the local elites for the private operation and exploitation which make them difficult to catch enough fish for their daily consumption.

In this regard, the process of resource demarcation has reflected state power by recognizing the central concept of territoriality. This concept has recently been extended to understand how a nation-state seeks to expand their control of internal space involves the control of internal resources and environment. The concept, as the state function, involves the creation and defense of property rights in order to enclose and claim valuable resource by changing its property right status (Vandergeest and Peluso 1995). The concept of internal territorialization theoretically links the study of state power, as realm of political science and political geography, to the study of human-environment interactions.

Vandergeest and Peluso (1995) highlight the notion of territoriality and power within Sack's definition and extend it to an understanding of state territoriality. They explain that modern states divide their territories into complex political and economic zones, rearrange people and resources within these units, and created regulations delineating how much and who can use these areas. These arguments are strongly believed in state power systems with the central idea of territoriality as space making in connection to resource access and control through the establishment of property rights.

However, these arguments overlook the local community's authority over a resource derives from a communal territorial claim to the resource rooted in a form of customary law. When both a state and a local community claim rights over the same

property by appealing to statutory or customary law respectively, territorial conflict may arise. For instance, the formation of VFC (Village Fishery Community) in Koh Sneng can be viewed as institutions which act to affect, influence or to control people, phenomena and relationships by delimiting and asserting control over a geographical area through the control over resource and the establishment of property rights. Thus, the VFC represent the institutional expression of power by a group or community through the control of resources. They can be conceptualized as institutions operating within the internal space that is bounded by state borders, but represent non-state spaces.

Ostrom (1999) has treated social space as the action arena which individuals interact-exchange goods and services, solve problems, dominate one another or fight. The action arena experienced by individuals as they move from home to market to work can be viewed as seamless web. Underlying any model of an action, arenas are implicit assumptions about the rules individuals use to order their relations, the state of the world, and the nature of community within which the arena is located. The action arenas have been explained and focused differently. For instance, sociologists are often interested in value systems and how human organize their relationships. Environmentalists address the interactions of physical and biological systems and how these facilitate, constrain, or are otherwise affected by human actions. Institutional analysts focus on rules and incentives and how they affect outcomes.

The reality of space making by the state has legitimized the commercialization and privatization for economic exploitation and have steadily destroyed the 'moral code' among local fishers through out the form of patron-client relations upon which inter-dependence between two parties is built based on commercial purposes. The practice of the 'moral code' of local fishers in Koh Sneng in the past created harmonious relations between local authorities, and the local fishers, as well as the fishers from outside. Today, this practice is being broken down gradually within the community. The seine net fishers and others seasonal fishers are normally outsider or influential people and tend to pay more attention to establishing good relationships with officers rather than with the local fishers. In this sense, it is worth mentioning that under a circumstance where the modern economy comes into practice, the influential people seem to become more selfish and have less interest in practicing a 'moral code' in their daily life. The current fishing resource management system in Koh Seng provides striking evidence of a negative evolution of moral code of patron-client relations in a rural community. The breakdown of this important social relations has left livelihoods and subsistence needs, which have already been impaired by the fishing law and limited alternative sources of incomes, such as, lack of job opportunities, and trading opportunities in which most of their agricultural products could not be sold out in the marketable price.

In addition, their access to fishing by fishers falls under a set of rules and regulations formulated by the state rather than by the local fishers. The involvement of the state in this sector has sparked serious conflict among stakeholders. Bryant (1992) points out that conflict over access to fish resources occurs when people struggle for their livelihoods. Conflict is especially prone to occur when a context of both historical and contemporary dynamics lead powerless people to fight to protect the environmental foundation of their livelihood from exploitation by powerful people.

As I have argued earlier the village fishery community, as the local institution, seeks for territorial control over resource vis-à-vis the local elites and other agents in the landscape. This theoretical argument is connected to the empirical evidence of the case in Koh Sneng shows that the community has struggled to maintain the control over its fishing grounds vis-à-vis the local authority and its business alliances. The behaviors of VFC as political agents in a changing landscape are illustrated by the political struggle that took place through out various forms of responses. Even though the struggles are not successful, but at least it represents a critical historical moment that determines whether the state, the business or the local community would be the one who maintain the territorial control over fishing grounds. The formation of VFC (Village Fishery Community) also reflects the political spaces of the local fishers within nation-state boundaries.

The Village Fishery Community, generated by NGOs and local communities, has been used to re-describe social and natural communities in fishery as a means of asserting local community control over natural resources. The critical point of the newly formed collective management by the local fishers has resulted in both inclusion and exclusion. It is inclusive in the sense of allowing access to a resource by a group of individuals, families, kin groups or other social groupings. It is exclusive in the sense of defining access rights and in so doing, requiring a greater or lesser degree of priority access to some groups over the others, for instance the seasonal fishers and the seine nets fishers from outsiders the commune. This kind of case can be found when there is shift in property regimes, especially when the communal resource is formalized or when it is involved with commerce. Therefore, the attempt for local people to establish common property has failed reflecting the power relations and social relations of each social actors throughout the process of changes.

The change can come from many things that incrementally occur and eventually lead to new property relations with non-confrontational consequences. Community can be a social unit that initiates the new property relations. The legitimatimization of changing institutions also does not have to come from law but also from the shared values, situational appropriation, and with local strategies of making space throughout certain discourse articulation.

## 6.3 Significant of the Findings

The significant of the finding in this study include:

First, even though the government is developing the positive step in decentralizing natural resource management, the practice of fishing administration and management are still under the vertical, monopoly management system in which the state has full control over fishery resources in the country. For instance, the newly reform fishery law and sub-decree related to the formation of fishery community tends to be in favor of the privatization rather than the local fishers.

The vertical privatization of the fishery sector is an attempt to generate national revenue through export taxes based on exclusive rights. This action does not allow a chance for participation from local people. The process of licensing of fishery resource involves different classes of people competing for these resources both legally and illegally. But, access to this bidding has been strongly linked to the political connection and kinship relations in which this process has blocked the opportunities of the local people who do not have license and become illegal, but according to their practice it is not illegal at all. Once the official license for fishery resources is approved, local fish buyers become illegal with their own practice in which they think is legal for their daily practice. For instance, in the case of Mr. Mai Chanthy and Mr. Khorn who were the local fisher buyers and later on become illegal (see also chapter 5).

The process of giving exclusive rights to private companies is expected to lead to an overexploitation of fish resources in the province. There is great concern over the depletion of this important resource in the long run. It is imperative, therefore, that the policy be reformed in such a way that a 'horizontal' fishery management is established and in which local people are empowered to play a more active role in managing and preserving their resources.

Second, the outcome of this study has clearly pointed out that a human ecology approach to analysis *per se* is not adequate in explaining the overall context of the conflict over the fishery exploitation and management in Cambodia because it focuses on only the relationship between humans and their environment. The shortcoming of the human ecology approach into the study through which is offered greater possibility for better understanding of the real picture and the root of the conflict and the power relations, social and patron-client relations amongst key stakeholders. Therefore, we need another approach called the political ecology approach. A political ecology approach to the commons resource in Koh Sneng treats the VFC as a political entity acting within a public sphere, containing micro-politics of production and closed system, but as a dynamic open system containing authority and power relations, and interacting with external power structures. Such an approach explicitly utilizes a combined scales analysis stressing the role of both micro and macro-level processes, emphasizing the interplay of power as VFC seeks to consolidate and alternative framework for resource management.

Third, the study has significance in terms of sustainability and equity. It is clear that, while the state and local people may share some agendas they are rationalized on different bases. Most of the factors and processes contributing to the conflicting access to the common property resources can be controlled through appropriate changes in public policies and other circumstances affecting these resources for their sustainable use. The local community has accumulated sizeable evidence on successful initiatives on the management of common resources through community involvement for equitable gains.

In addition, the state and local people have different perceptions and understanding of development. The officials at the local level tend to focus the development agendas on economic development and revenue improvement, while local people, they may agree to the state on economic development, but they also are concerned with their customary practices of their livelihoods access. The interventions that affect the shifting of property regimes allow interaction of local people with various actors and aspects of policy, authority, values and morality which creates new 6263 understanding of property relations at the local.

#### **6.4 Policy Recommendations**

In Cambodia, many laws and policies regarding natural resource management are being developed. Phnom Penh based policy makers are often not aware of local reality and complexity in rural Cambodia. So, the research findings will be useful for the Department of Fisheries as well as the Ministry of Environment who are the main agencies in this sector.

The efforts from the government in developing the new fishery law and subdecree regarding fishing is very positive and appreciated by the civil society and NGO sectors. However, the community-based natural resource management (CBNRM) approach is new to Cambodia. Technical departments such as Department of Fisheries (DoF) and the Ministry of Environment (MoE), created in 1993, have officially managed natural resources, but in reality little attention has been paid to isolated communities because of internal conflict, capacity issues such as limited funding, and lack of trained personnel.

In Koh Sneng, although there are some different interests of each village, but there is a process of community connection and the process of territoriality that together constitute the social spaces of fishing. The formation of village fishery community (VFC) follows the notion of discourse for counter-mapping for the understanding of environmental and social justice. This theoretical argument is connected to the empirical evidence of local fishers who have struggled to maintain the control over its fishing grounds vis-à-vis the local authority and private actors.

The behavior of the VFC has played a role in changing the landscapes and is illustrated by the political struggles that have taken place since the late 1990s. These political struggles represent a critical historical moment that is to determine whether it would be the nation state or the local community that would maintain the territorial control over fishing grounds.

However, neither of them is excluded because the central and provincial agencies have more authority over broad policy issues, whereas daily management is basically the responsibility of the district governments. Without support and recognition of higher levels of government, co-management arrangements like VFC are unlikely to be successful implementation of management strategies. This is not to say that provincial and central government agencies do not have important roles to play, but their limitation need to be recognized.

Tyler (1999) also suggests that to avoid conflict in resource extraction, local authority and government requires adopting monitoring (not control) procedures to ensure that public interests are represented and protected from narrow parochial interest. Thus, policy innovations to provide more opportunities for conflict management will still have to take place within a framework that ensures comprehensive resource management, administrative fairness, and effectiveness. Communities do need formal recognition of their right to manage their resources. However, policy makers need to be cautious in defining these rights too narrowly (Li 2001).

The Village Fishery Community represents an important option for improving the management and equitable distribution of natural resources. The natural resource co-management system that allow for the full participation of villagers (in terms of village solidarity, increased natural resource management capacity, and observed and or perceived increased of fish catch and stocks), and government should receive increased attention and support. The process of development appropriates aquatic resource co-management systems in Cambodia is a strong start, but is still evolving and much more work remains to be done.

Since the research site was designated a Ramsar Site, multiple stakeholders including the government agencies, the NGOs and the International Conservation Agencies (IUCN), the Development Agencies (MRC, UNDP) have rated the biodiversity conservation and ecotourism development potential of the areas.

Eco-tourism potential of these sites is at present almost entirely untapped, due to a lack of promotion and difficult access (see Chapter 3). In my opinion, the area is

well suited to host a wetland interpretation center, focusing on the Mekong River ecology and lifestyle. The wetlands lies at the border of Cambodia-Lao PDR and local people on both sides of the border already share traditions, kinship and social links and resources (migrating fish, dolphins, habitats). A long-term vision for the broader area could also consider the establishment of some form of solid trans-border cooperation on shared resource management issues and even the creation of transfrontier area with recognized special status.

## 6.5 Limitations of the Study

Due to time, resources restrictions, and political conditions, the limitations of this study are as follows:

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During fieldwork, multiple methods and tools were used to collect information based on the topic and the situation in the study. However, rural society is complex and varies from place to place over time and it is difficult to properly apply these methods and tools to serve the purpose of the real situation. It is difficult to gather complete information to fully understand the community within limited time, resources, and political disrupted.

This research focuses on the making space and access of local community in fishery resource management and their adaptability to the newly reform policies as well as to the environment around them and the process of fish commercialization in the province. The study does not focus on the large-scale market economy and regional large-scale strategies used to gain access to fish resources management.

Investigation and research of this study was conducted only in one selected village. In practice, fishers are not fixed only one place and they are migrating out fishing from place to places along the Mekong River and its tributaries in the province and across the political boundaries as the river and tributaries traverses. Besides that the ethnic relations in the village and the province are not fixed to country political boundaries as well, they extended their ethnic relations as far as Pakse, or in Vientiane of Lao PDR. Therefore, the findings of this research is limited to generalize in the province since the ecological setting of river and tributaries in the province are so diverse.

Therefore, further study on social relations of fishery communities within the province and across borders is strongly suggested. This could be a comparative study with other villages' of ways of life, the practices of fishers in the province and the nearby countries of Lao PDR because these fishers have many common, to share during their fishing season and trading relations.



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