IMPACT OF CAMBODIAN DECENTRALIZATION POLICY IN FISHERY MANAGEMENT ON HUMAN SECURITY OF FISHERS AROUND THE TONLE SAP LAKE

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A Thesis Submitted in Partial Fulfillment of the Requirements

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วิทยานิพนธ์นี้เป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปริญญาศิลปศาสตรมหาบัณฑิต สาขาวิชาการพัฒนาระหว่างประเทศ คณะรัฐศาสตร์ จุฬาลงกรณ์มหาวิทยาลัย ปีการศึกษา 2554 ลิขสิทธิ์ของจุฬาลงกรณ์มหาวิทยาลัย

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ทะเลสาบโตนเลซับเป็นแหล่งน้ำจืดถาวรที่ใหญ่ที่สุดในภูมิภากเอเชียตะวันออกเฉียงใต้และยังเป็น ระบบนิเวศน้ำจืดที่อุดมสมบูรณ์มากที่สุดแห่งหนึ่งของโลก การประมงในทะเลสาบโตนเลซัปมีส่วน ช่วยเหลือประชากรที่อาศัยอยู่รอบทะเลสาบเป็นจำนวนมากกว่าหนึ่งล้านคน นอกจากนี้ทะเลสาบยังเป็น แหล่งให้โปรตีนที่ใหญ่ที่สุดแห่งเดียวสำหรับชาวกัมพูชา

วิทยานิพนธ์ฉบับนี้มุ่งศึกษาถึงนโยบายการกระจายอำนาจด้านการบริหารจัดการบริเวณรอบ ทะเลสาปโตนเลซับในประเทศกัมพูชาและการสร้างชุมชนประมงว่าได้ช่วยเสริมสร้างความแข็งแกร่งให้แก่ เศรษฐกิจในระดับชุมชนและแนวคิดด้านความมั่นคงของมนุษย์หรือไม่ งานวิจัยนี้ได้ใช้การวิเคราะห์เชิง เปรียบเทียบเพื่อศึกษาชุมชนสามแห่งในจังหวัดพระตะบองซึ่งประสบความสำเร็จในการก่อตั้งชุมชน ประมงในระดับที่ต่างกัน อันได้แก่ 1.ชุมชน Prek Trob ที่ชุมชนประมงประสบความสำเร็จ 2. ชุมชน Doun Try ซึ่งชุมชนประมงไม่ประสบความสำเร็จ และ 3. ชุมชน Kbal Taol ซึ่งกำลังจะก่อตั้งชุมชนประมงขึ้น กรอบความคิดในการวิจัยที่ใช้นี้จะแยกการกระจายอำนาจออกเป็น 2 ส่วนคือ 1.หลักการแบ่งอำนาจ ปกครองซึ่งรัฐบาลกลางได้มอบอำนาจและความรับผิดชอบไปยังหน่วยงานรัฐบาลในระดับล่าง และ 2.การ กระจายอำนาจตามระบอบประชาธิปไตย ซึ่งอำนาจและความรับผิดชอบจะถูกส่งผ่านไปยังชมชนท้องถิ่น

การศึกษาพบว่าในค้านการกระจายอำนาจตามระบอบประชาธิปไตย ชุมชนยังไม่ได้รับอำนาจที่ จำเป็น สิทธิในการใช้ทรัพยากร และอำนาจในการตัดสินใจเพื่อที่จะพัฒนาและบริหารจัดการทรัพยากรค้าน การประมงในชุมชนอย่างเต็มที่ ในขณะเดียวกันหลักการแบ่งอำนาจปกครองก็ยังไม่สามารถสร้างอำนาจที่ สามารถตอบสนองต่อความต้องการของชุมชนและสามารถเป็นที่พึ่งพาได้ ด้วยเหตุนี้ นโยบายการกระจาย อำนาจค้านการบริหารจัดการการประมงยังไม่สามารถสร้างความแข็งแกร่งให้แก่เสรษฐกิจและแนวกิด ความมั่นคงของมนุษย์ของชุมชนชาวประมงรอบทะเลสาปโตนเลซับได้

การอุดช่องว่างของนโขบายการกระจายอำนาจด้านการบริหารจัดการการประมง รวมถึงหลักการ แบ่งอำนาจปกครองและการกระจายอำนาจตามระบอบประชาธิปไตยจะต้องถูกนำไปปฏิบัติ และยังต้องมี การบังกับใช้กฎหมายประมงที่มีอยู่อย่างมีประสิทธิภาพยิ่งขึ้น โดยใช้การศึกษาและการตำรวจเข้าช่วย (อัน ได้แก่การปราบปราบการกอรัปชั่นในภากประมง การปราบปราบประมงเถื่อน และการหยุดยั้งการทำลาย แหล่งที่อยู่ของสัตว์น้ำ) ในขณะเดียวกัน สภาชุมชนกวรก้าวเข้ามามีบทบาทมากขึ้นในการเข้าร่วมกับชุมชน ท้องถิ่นในการบริหารจัดการและการอนุรักษ์แหล่งประมง

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5381032024: MAJOR: INTERNATIONAL DEVELOPMENT STUDIES KEYWORD: CAMBODIA/ TONLE SAP LAK/DECENTRALIZATION/ HUMAN SECURITY/ COMMUNITY FISHERIES

BORIN UN: IMPACT OF CAMBODIAN DECENTRALIZATION POLICY IN FISHERY MANAGEMENT ON HUMAN SECURITY OF FISHERS AROUND THE TONLE SAP LAKE. ADVISOR: CARL NIGEL MIDDLETON, Ph.D., 161 pp.

Tonle Sap Lake (TSL) is the largest permanent freshwater body in Southeast Asia and among the most productive freshwater ecosystems in the world. Fisheries from TSL directly support more than one million people around the lake and provide the single largest source of protein for Cambodia's population.

The study investigates whether decentralization in fishery management in Cambodia around the TSL and the establishment of community fisheries (CFs) has strengthened local communities' economic and food security. Three communities in Battambang Province with differing degrees of success in establishing a CF were examined to conduct a comparative analysis, namely: Prek Trob, where a successful CF has been established; Doun Try where an unsuccessful CF has been established; and Kbal Taol where the community has yet to create a CF. The study's conceptual framework differentiates decentralization into: deconcentration, whereby central government delegates power and responsibility to lower government institutions; and democratic decentralization whereby power and responsibility are transferred to local communities.

The study finds that democratic decentralization has not yet fully granted the communities with the necessary powers, resource use rights and autonomy in decision-making to develop and manage the fishery resources in their community. At the same time, deconcentration has not totally created responsive and accountable authorities. As a result, Cambodia's decentralization policy in fishery management has not yet proved to strengthen the economic and food security of local fishers around TSL.

To remedy the gaps of Cambodia's decentralization policy in fishery management, further deconcentration and democratic decentralization in fisheries management must be in place. There must also be more effective enforcement of existing fishery laws through both education and policing, including: addressing corruption in the fisheries sector; taking action against illegal fishers; and halting destruction of fish habitats. Meanwhile, a greater role and incentives should also be given to Commune Councils to engage and partner with local communities in the management and conservation of fisheries resources.

Field of Study: International Development Studies Student's Signature

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LIST OF ABBREVIATIONS

| ADB | Asian Development Bank | | | |
|------|---|--|--|--|
| CCs | Commune Councils | | | |
| CFs | Community Fisheries | | | |
| FACT | Fisheries Action Coalition Team | | | |
| FAO | Food and Agriculture Organization | | | |
| FiA | Fishery Administration | | | |
| KAWP | Krom Akphiwat Phum | | | |
| MAFF | Ministry of Agriculture, Fisheries and Forestry | | | |
| RGC | Royal Government of Cambodia | | | |
| TSBR | Tonle Sap Biosphere Reserve | | | |
| TSL | Tonle Sap Lake | | | |
| UNDP | United Nation Development Program | | | |
| VSG | Village Support Group | | | |
| | | | | |

CHAPTER I

INTRODUCTION

Tonle Sap Lake (TSL), also known as the Great Lake, is located in central Cambodia, and is known as the heart of Cambodia. It is the largest permanent freshwater body in Southeast Asia and is among the most productive freshwater ecosystems in the world (World Water, 2006). The TSL's fisheries directly support more than one million people around the lake and provide the single largest source of protein for Cambodia's population (Slocomb, 2010). TSL has played a crucial role in sustaining local peoples' livelihoods as well as the livelihoods of the wider Cambodian population for many generations, particularly in regards to their food and economic security. Any changes, therefore, in the fishery management policy around TSL will impact directly on the human security of local people and indirectly on outsiders.

This thesis investigates whether the Cambodian policy of decentralization of fishery management, through the establishment of community fisheries (CFs) in local communities, is strengthening economic and food security of fishers around TSL. Throughout the thesis, the many interactions between the balance of power and responsibility among local actors to implement the decentralization policy in fishery management are investigated, alongside an examination of the challenges and opportunities in the process of creating and managing community fisheries. At the same time, the impact of policy implementation on local fishers' economic and food security is critically determined. In considering this process, three communities with different contexts were selected for the case study, namely: Prek Trob, Doun Try, and Kbal Taol in Battambang province.

The thesis is composed of six chapters: chapter 1 describes the design of the research; chapter 2 is a review of previous literature relevant to Cambodia's decentralization of fishery management and the relationship between the TSL's fisheries and the economic and food security of local fishers; chapter 3 explores the challenges and opportunities of establishing CFs in Prek Trob and Doun Try communities; chapter 4 discusses the reasons why a CF has not been established in Kbal Taol; chapter 5 evaluates the relationship between the changing economic and

food security of fishers in the three selected communities and the Cambodian government's decentralization policy on fishery management; finally, chapter 6 offers a series of conclusions and recommendations based on the findings presented in chapters 3 to 5.

1.1 Statement of Problem

Since the late 1970s until the fishery reform in 2000, fishing activities in Cambodia were classified into two categories: limited access fisheries areas consisting of large-scale fishing lots for private owners; and open access fishing areas consisting of medium-scale and small-scale fishing areas for communities. From the late 1980s, the large-scale fishing lot areas expanded and began to encroach into the open access areas of local communities. Because the large-scale fishing lots were located in more productive fishing areas compared to the medium-scale and small-scale fishing areas with some of the private lots even incorporating entire villages within their boundaries - some conflicts between large-scale fishing lot owners and local communities occurred during the 1980s and 1990s. Local people complained about the exploitation of fishery resources in TSL by the lot owners and blamed the owners of the fishing lots for having the exclusive right to harvest fish from the lots that were located in the most productive fishing areas (FACT's workshop in 2011). Partly due to growing criticism over the fishing lot system and its inefficiencies, in a sudden move in 2000, Cambodia's Prime Minister, Samdech Hun Sen, handed 56% of the fishing lots area back to the communities (Briones and Garcia, 2008). At the same time, "community fisheries" (CFs) were created to manage the open access area of each community.¹

Following the release of the fishing areas in 2000 and in the absence of decentralization laws in fishery management, over one hundred CFs were created by local communities in their own way with support and facilitation by local non-government organizations (NGOs) and international NGOs. However, the government recognized the need for more formalized arrangements and guidelines for CFs and the Ministry of Agriculture, Forestry and Fisheries (MAFF) issued the Sub-Decree on

¹ The idea of creating CFs emerged out of the Seila initiative, which has piloted decentralization in Cambodia since 1996, and from the initial agenda set by the Royal Government of Cambodia in 1999.

Community Fisheries Management, the Fisheries Law, and a Prakas on Guidelines for Community Fisheries in 2005, 2006 and 2007 respectively. The sub-decree states the government has an important role to play in setting guidelines and standards for CFs and monitoring implementation. The sub-decree has increased the government's involvement in creating, governing and organizing CFs. Because of these changes, there has been a process of adjustment in powers, responsibilities and accountabilities between the local government institutions and local communities in implementing the decentralization policy. At best, the involvement of the government can be seen as an attempt to standardize the best practices of the decentralization in fishery management from the diversity of approaches adopted by the NGOs. Furthermore, within the fishery legal framework, the implementation of the fishery management around TSL has been put under the authority of lower and local government institutions.

Before the fishery reform was in place, fishery resources around TSL were already under serious threat. It is critical, therefore, to determine whether the decentralization of fishery management can be an effective solution to the crisis around the lake. In principle, the policy of decentralization is seen by the Royal Government of Cambodia (RGC), NGOs, and local people as an opportunity for local communities to control, manage, and use resources in their own way. If well-implemented, the approach could be sustainable, and provide a better way to improve the livelihood and well-being of local people. Furthermore, the establishment of CFs should create local community organizations whose function is to offer a solution to the management of fishery resources around TSL. Such groups have the potential to address many of the present fishery issues, and to increase equity of access to the resources within the community (Middleton, Vann and Pen, 2005). In this sense, it is seen that the establishment of CFs will not only serve to manage the fishery resources in the community in a sustainable manner, but also to strengthen food and economic security, as well as the broader human security of people around the lake.

However, this reform of fishery management might not be complete solution to the crisis around the lake as long as some existing additional challenges remain. First, the lack of experienced human resources, especially of qualified and competent staff, and the limited public-spending budget both impede the government's implementation of the decentralization policy in fishery management (MAFF, 2006). Second, the culture of decentralization has not yet fully developed within local levels of management so that policies are implemented in a reliable fashion (Kim and Öjendal, 2007). Other concerns include: the limited knowledge and participation of local communities in managing and controlling CFs; the interaction and balance of power of the involved actors; and the lack of accountability and responsiveness of officers and experts in the fishery sector (Kim and Öjendal, 2007).

If the RGC's policy governing the fishery does not deal with the crisis in fisheries management, this could lead to further confusion over access rights and result in continued irresponsible fishing and further conflict (Serrat, 2005). Such misconduct will prevent the communities' natural resources from recovering from over-exploitation. Furthermore, communities will potentially come under even more pressure as they are delegated responsibility for managing their resources but fail to do so in a sustainable manner. In this case, the result of the decentralization policy in fishery management through establishing CFs will act to undermine and threaten food and economic security and the broader human security of the local people as a whole. Therefore, in order to determine whether the outcome of this approach has been successful, it is important to further study Cambodia's decentralization policy in fishery management through establishing CFs and its policy implementation at the local level, and to consider whether it has strengthened the economic and food security of the local community.

1.2 The Research Question:

The research seeks to answer the following main question:

 Is decentralization in fishery management in Cambodia, through establishing community fisheries, strengthening the food and economic security of fishers around Tonle Sap Lake?

To answer the main research question, three sub-questions are proposed:

• In the case of Prek Trob and Doun Try communities, how have community fisheries been created and what have been the challenges and opportunities, so far?

- In the case of Kbal Taol, why has a community fishery not been established?
- In the Prek Trob, Doun Try and Kbal Taol communities, how has economic and food security changed as a result of the government's decentralization policy on fishery management since 2001?

1.3 Research Objectives

Responding to the main research question, the overarching research objective is:

• To determine if decentralization of fishery management in Cambodia is strengthening the food and economic security of local fishers around Tonle Sap Lake.

Based on the sub-research questions, the objectives of this study are:

- To determine how community fisheries have been created in the Prek Trop and Doun Try communities, and to understand the challenges and opportunities that have occurred.
- To determine why a community fishery has not been established in Kbal Taol community.
- To examine how economic and food security has changed in the Kbal Taol, Doun Try, and Prek Trop communities as a result of the government's decentralization policy on fishery management since 2001.

1.4 Hypothesis

Decentralization in fishery management in Cambodia and the establishment of community fisheries has strengthened communities' economic and food security. The reason for this is that democratic decentralization has granted the concerned communities powers, rights and some autonomy in decision-making to develop and manage the fishery resources in their locality. At the same time, the authorities are more responsive and accountable due to deconcentration.

1.5 Conceptual Framework

Because of the proposed connection between Cambodia's decentralization policy and the human security of fishing communities, these two main concepts, (decentralization and human security) are used to frame this study as detailed below.

1.5.1 "Decentralization" as Deconcentration and Democratic Decentralization

In theory and reality, decentralization never has a single definition or a single practice; however, examination of the debate and research on decentralization provides further understanding of theoretical and practical concepts in this field. Scholars such as Cohen & Peterson (1999) and Rondinelli (1999) suggest that decentralization can be defined as the transfer of authority and responsibility for public functions from the central government to subordinate or quasi-independent government organizations or even the private sector and community associations. Within the context of natural resource management, Wittayapak and Vandergeest (2010) view decentralization as a change in the control of resources from the central authority to local communities. In decentralization processes three factors are considered, namely, actors, powers, and accountability. Without an understanding of the powers of various actors, the domains in which they exercise their powers, and to whom and how they are accountable it is impossible that a meaningful decentralization can take place (Agrawal and Ribot, 1999):

- Actors are people who exercise power over public resources and may include appointed or elected officials, NGOs, chiefs, powerful individuals, or bodies such as communities, cooperatives, and committees. There are different characteristics from one actor to another because each of these actors is placed in particular systems of accountability, is involved in different relationships and has certain types of powers.
- **Powers** are concerned with decision-making. There are four broad powers of decision-making: the power to create or modify rules; the power to make

decisions about how a particular resources or opportunity is to be used; the power to implement and ensure compliance; and the power to adjudicate disputes.

• Accountability is defined as counter-power, that is, any power that balances or puts a check on the power of other power-holders. There are two kinds of accountability relations: upward accountability and downward accountability. In upward accountability, those who must account for their actions are subject to pressure from superior forces in the politicoadministrative machine; while in downward accountability local people have power to demand services from those who are given power to make decisions on their behalf (Oyono, 2004, cited in Wittayapak and Vandergeest, 2010).

In the context of fishery management in Cambodia, decentralization is operationalized in two ways: democratic decentralization; and deconcentration.

1.5.1.1 Democratic Decentralization

The term "decentralization" in this study is first focused on "**community democratic** decentralization," that is the bottom-up approach. In this principle, democratic decentralization occurs when power and resource rights are shifted to representatives of local people, and at the same time it is downwardly accountable to local people (Wittayapak and Vandergeest, 2010). In the context of Cambodia's decentralization in fishery management through establishing CFs, local communities are granted powers, rights², resources and some autonomy in decision-making processes to participate with the CF committee. The CF committee represents the community in carrying out the community's responsibilities with regard to planning, managing, utilizing, and preserving the community's fisheries and natural resources in the community's interests in their own way.

² Rights here refers to the rights re: accessing resources in the community and the basic rights of Cambodians as stated in the Constitution of the Kingdom of Cambodia

decentralization grows out of local communities and is managed locally, and at the same time, their representatives are more accountable to local communities.

1.5.1.2 Decentralization as Deconcentration

At the same time, in order to contextualize policy implementation at the local level, the researcher will try to further explore the **government's deconcentration** (top-down approach). In principle, deconcentration involves a transfer of decision-making powers from central state to regional or local bureaucracies, which remain upwardly accountable to central headquarters (Wittayapak and Vandergeest, 2010). In the context of Cambodia's decentralization of fishery management through establishing CFs, implementation is supposed to occur with cooperation and partnership between local communities and provincial and district fishery officers. For this reason, it is important to look at the interaction and balancing of responsibility, power, and accountability within the government line agencies and within local communities.

1.5.2 Human Security of the Community

The concept of *human security* originates in the 1994 Human Development Report (HDR) by the United Nations Development Program (UNDP). Closely associated with the idea from the start was the economist Mahbub ul Haq who provided a comprehensive definition of human security stressing and covering seven areas, namely: economic, food, health, environmental, community, personal and political security (UNDP, 1994). There are, furthermore, two major considerations of human security, namely 'freedom from fear' and 'freedom from want' (Commission on Human Security, 2003). After the development of a new conceptualization of human security by the UNDP, the concept of traditional security was changed in two basic ways: first, a move away from an exclusive stress on territorial security to a much greater stress on people's security, and, second, an shift from the notion of security through armaments to security through sustainable human development (UNDP, 1994:24). This study focuses on economic and food security as the core elements of the conceptual framework, while the other five components are considered as important background context.

1.5.2.1 Economic Security

According to the UNDP (1994:25-26), economic security is defined as the condition in which a person or a community has a stable income (including other social and non-monetary resources as income) to support a current and future living standard. Economic security in a community can be measured by looking at the community in three ways: through changes in the level and sources of household income, second, changes in job reliability and stability; and finally, by looking at income protection and supports.

1.5.2.2 Food Security

The Food and Agriculture Organization (1996) defines 'food security' as "when all people at all times have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life." The indicators used to measure food security in the community are: food availability, supply and consumption of food; purchasing power and access to basic food; and quality of food.

1.5.2.3 Other Components of Human Security

There is a connection between economic and food security with the other components of human security in that economic and food security are key commodities in terms of finance and nutrition to strengthen these other components of human security. In this way, the analysis of human security is not limited to only food and economic security; general aspects of health, personal, environmental, political, and community security are also considered. The following definitions and indicators of the remaining components of the human security are utilized in this study.

- Health Security: According to UNDP (1994:27-28), health security can occur in a community when that community is not threatened by poor nutrition and an unsafe environment that could cause infectious diseases or undermine the health of local people. Health security is measured based on: access to safe and affordable health services and safe drinking water; sanitation and housing condition; and basic knowledge and awareness of healthcare.
- Environmental Security: The security of a community relies on a healthy environment that contributes to sustainability and the physical well-being of local people (UNDP, 1994:28-30). Some potential environmental threats considered include: water, land and air pollution, overfishing activities, firewood collection, and hunting and collecting wildlife resources.
- Personal Security: The UNDP (1994:30) states that "no human security is so vital for people as their security from physical violence." Personal security in the community can be measured by: personal risks and accidents; violent and drug-related crime; community conflict resolutions; and gender and domestic violence.
- **Community Security:** "Most people derive security from their membership of a group—a family, a community, an organization, a racial or ethnic group that can provide a cultural identity and a reassuring set of values" (UNDP, 1994:31). Community security in the community can be evaluated by looking at: identity and values; structure and solidarity, and internal conflict in the community.
- **Political Security:** According to the UNDP (1994:32), political security requires that people should be able to live in a society that honors their basic human rights. Indicators measuring political security include: the condition of expressing ideas and receiving information and education; political participation; justice and legal protection; and ill treatment in the community.

1.5.3 Links between Deconcentration and Democratic Decentralization and Economic and Food Security

When communities under democratic decentralization have been granted powers, rights, resources and some autonomy in decision-making to develop and manage the fishery resources in their community, it will, in principle, provide the communities with some benefits, including: providing communities an incentive to protect their own natural resources; providing the rights to control access to resources; increasing equity of access to resources within the community; and promoting a culture of personal and collective accountability for wrong doing towards the communities' fishery resources. Furthermore, when the authorities are more responsive and accountable due to deconcentration, communities will, in principle, be better able to: demand the authorities to cooperate and assist in the control of illegal fishing activities; file complaints to authorities to protect the interests of the communities; and freely participate in the activities of the community fishery (CF).

In this way, deconcentration and democratic decentralization could ensure: effective community fisheries and natural resources management; ownership by local communities of their communities' fisheries and natural resources; and the sustainable use of communities' fishery resources. Under these conditions, therefore, it is likely that fish stocks will be preserved and recover in the communities.

Regarding economic security, when local people have equal rights to access to and gain ownership over community fisheries and natural resources, fish stocks are preserved and recover, and local people are able to catch more fish and earn a higher and more stable income from household fishing activities. In this way, local fishers are able to depend on household fishing to help to support their living. In this sense, household fishing is seen as a contribution to household income, job reliability and security, and income protection in the community.

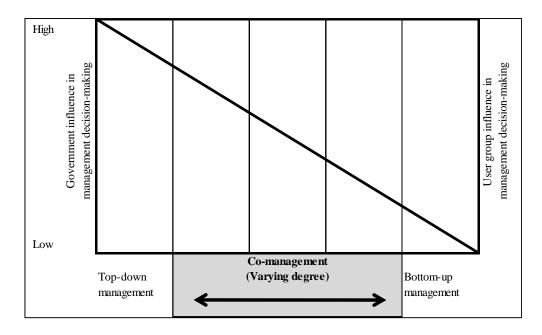
Regarding food security, as fish stocks recover, more fish are supplied and become available in the village for household fishing. At the same time, it is likely that the villagers consume more fish in their daily diet. Moreover, the communities' natural resources are likely to be more available to provide various other food commodities to the local communities, which can serve as the community's safety net. If, as is likely, income from household fishing increases, local fishers are able to use this income to buy other food stuff, such as rice, vegetables, meats, fruits, and so on. As such, food security will be strengthened and maintained in the community.

However, in practice, there may be some limitations to deconcentration and democratic decentralization. Regarding democratic decentralization, local people may not have competent knowledge, may not be able access information, and may not be aware of their entitlements, rights and powers. Regarding deconcentration, effectiveness may be limited by irresponsible, less accountable and unresponsive fishery officers and responsible authorities. For these reasons, the successful implementation of a decentralization policy in fishery management through establishing CFs is by no means guaranteed. Without successful policy implementation, it will be very difficult to ensure sustainable uses of communities' fisheries and natural resources. Failure in this regard will not strengthen the economic and food security of local people, especially subsistence fishers whose living depends largely on fisheries.

1.5.4 Community Fisheries as a Concept

Co-management in fishery management is the sharing of decision-making and responsibility for the management of resources between the community (local fishers) and the government (Brown, Staples & Smith, 2005). Co-management describes the spectrum of shared management between the extremes of full bottom-up management (with full devolution of responsibility to local communities) through to top-down management (with full responsibility controlled by government) (figure 1.1).

The term co-management, therefore, represents the varying degrees of involvement or interaction of government and local communities between the bottomup and top-down management. In the context of CF management in Cambodia, comanagement requires the local communities and the Department of Fishery administration at the provincial and district level, with support by NGOs, to work together to manage the communities' fisheries and natural resources. In this way, there must be a balance and interaction of power between the role of the provincial and district fishery administration and the role of the local communities.



Source: Adapted from Brown, Staples & Smith, 2005

1.5.5 Involved Actors

Actors involved in implementing the decentralization of fishery management are as follows:

• The Government Administration Structure: consists of the central government, the provincial governor, the district governor, the commune councils (CCs) and commune chief, and the village chief. The government administrative structure is divided into four different levels: central, provincial, district, commune, and village levels with different scales of responsibility and accountability. The government administration is responsible for providing the administrative supports which are delegated from the central government to lower government authorities in the chain of command. The provincial and district governors who are appointed by the central government are more upwardly accountable. The CCs, commune chiefs, and village chiefs are elected by local villagers and are more downwardly accountable.

- The Government Executive Agency Structure: For the management of Tonle Sap Lake's fisheries, the relevant ministerial line agency is the Ministry of Agriculture, Fisheries and Forestry (MAFF), the Fishery Administration (FiA), the Provincial FiA, and the District FiA. FiA is a government authority under MAFF responsible for the management of fisheries and fishery resources according to the National Fishery Policy and Law on Fisheries (2006). The FiA is a nationwide institution organized in the form of a vertical hierarchy which is classified into central level, provincial level, and district level of FiA, and is the executive agency responsible for implementing the decentralization policy in the fishery management in Cambodia. The provincial fishery is more upwardly accountable, while district fishery is more downwardly accountable. Provincial and district fishery administration and local communities, with support from NGOs, have worked together to manage the communities' fisheries and natural resources.
- The CF Committee: a group of local people who lead and manage the CF in the community. The number of members of the CF Committee should be odd, from five to eleven, depending on the actual situation and on the decision of the congress, and women are encouraged to stand as candidates for election to the CF Committee. The CF committees are selected through free and fair election by an absolute majority of local communities.
- Local Communities: local villagers who live in or near the community's fishing area. They are normally local fishers who use and access to the community's fishing area as a way of using and processing fisheries and natural resources in the community to contribute to their households' economic and social improvement.
- Community Based Organization (CBO): an organization that is formed by or grown out of the local community. It is organized and lead by local people. The CBO committee is selected through election by local people. Normally, it is formed for the purpose of a saving group to provide funds to the members of the CBO. Generally, the CBO is supported and funded by a local or international NGO.

- Non-Governmental Organizations (NGO): local or international NGOs involved with the fishery management and working with local people to improve their capacity and livelihoods. They play a facilitating role between the government institutions, local communities and the CF committee to ensure the sustainable uses of the communities' fisheries and natural resources.
- Fishing Lot Owners: private businessmen who gain auctioned fishing territory from the government for operating commercial projects.

1.5.6 Roles and Responsibilities of Actors in CFs

The following table describes the roles and responsibilities of each actor involved in establishing and managing CFs. The roles and responsibilities listed in this table are mainly based on the Sub-Decree on Community Fisheries Management (2005) and the Law on Fisheries (2006).

| Involved Actors | Roles and Responsibilities | | | | |
|---------------------------|---|--|--|--|--|
| The Central Government | Sets policies, legislation, and guidelines governing the fishery management Standardizes the best practices of the fishery management policies Provides financial support and creates an enabling environment for the implementation of the fishery management policy | | | | |
| Provincial and | - Cooperates and supports provincial and district fishery | | | | |
| district | administrations, local communities, the CF committees, and local | | | | |
| governors | authorities in implementing the fishery management policy | | | | |
| Local | Monitor and cooperate with provincial and district fishery | | | | |
| Authorities | administrations and local communities to establish community | | | | |
| (CCs and | fisheries Cooperate and support provincial and district fishery | | | | |
| village chief) | administrations, local communities, and the CF committee in | | | | |

Table 1.1: Roles and Responsibilities of Actors in CFs

| | organizing and managing the community's fishing area | | | | | |
|------------------|---|--|--|--|--|--|
| | | | | | | |
| | Acts as an administrator of CFs | | | | | |
| | Works with provincial and district fisheries administration t | | | | | |
| | examine, make decisions, and approve on requests for t | | | | | |
| | establishment of CFs | | | | | |
| MAFF | Issues proclamations recognizing, rejecting, or nullifying CFs | | | | | |
| | Coordinates with government institutions and other relevan | | | | | |
| | parties on implementation and development of CF management | | | | | |
| | Intervenes to resolve conflicts of CFs | | | | | |
| | Seeks assistance from all sources to fund and support CFs | | | | | |
| | Executes the adopted fishery management policies | | | | | |
| | Provides technical supports and advice | | | | | |
| | Follows up, monitors, and evaluates implementation by CFs | | | | | |
| | Facilitates the organization of CFs, demarcation of community | | | | | |
| Provincial and | fishing areas and writing of CF regulations and CF management | | | | | |
| District Fishery | plans, and activities by CFs to manage fisheries resources | | | | | |
| Administration | - Educates and trains CF committees to increase their technical capacity for management | | | | | |
| 1 ministration | | | | | | |
| | Helps to seek funds from all sources to fund and support CFs | | | | | |
| | Stops and suppresses fisheries offences in community fishing areas | | | | | |
| | Resolves fisheries conflicts in community fishing areas | | | | | |
| | - Use their decision-making power to attend the congress and cast | | | | | |
| | equal votes | | | | | |
| | Vote and stand for election in the CF committee structure in | | | | | |
| | compliance with the provisions of the sub-decree | | | | | |
| | Receive information on the economic condition of the CFs from | | | | | |
| Local | the CF committee | | | | | |
| Communities | - Participate in local planning and implementation and in all | | | | | |
| | activities of the CFs | | | | | |
| | Access to the communities' fisheries and natural resources to do | | | | | |
| | fishing at family-scale in accordance with the fishery laws and | | | | | |
| | regulations of the CFs | | | | | |
| | - Participates in resources conservation and enhancement. | | | | | |
| | I man and a second s | | | | | |

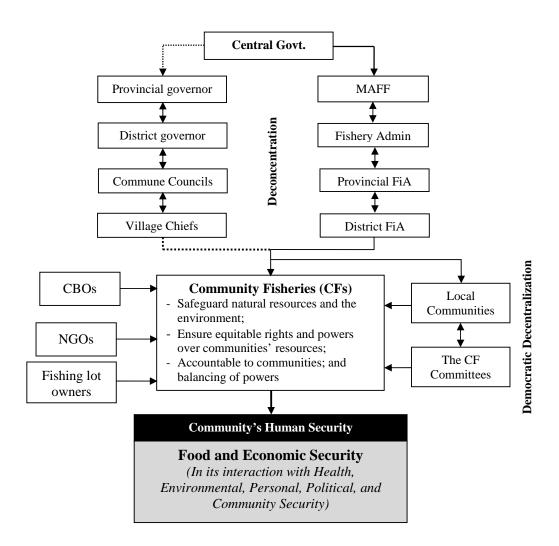
| | - | | | | |
|----------------------|--|--|--|--|--|
| | - Draft by-laws and internal regulations of the CFs, and community | | | | |
| | fishing area management plans and agreements | | | | |
| | - Manage the CFs in accordance with the conditions set out in the | | | | |
| | by-laws, internal regulations and other relevant legal instruments | | | | |
| | - Seek technical and financial support from Fisheries competences, | | | | |
| | relevant institutions and donors for implementation of CFs | | | | |
| The CF Committees | activities | | | | |
| | - Represent the CFs in any mediation and conflict resolution that | | | | |
| | may occur | | | | |
| | - Make decisions on CFs development with the agreement of a | | | | |
| | majority of CFs members in accordance with relevant legal | | | | |
| | instruments | | | | |
| | - Report and provide information immediately on any fisheries | | | | |
| | violations in the community fishing area to the nearest Fisheries | | | | |
| | competence. | | | | |
| | - Increase the financing available in the community; raise awareness | | | | |
| CBOs | and participation of local communities in managing, controlling, | | | | |
| | and preserving the communities' fisheries and natural resources | | | | |
| | - Provides financial and technical assistances to support | | | | |
| | implementation of CFs activities | | | | |
| | - Build the capacity of the CF committees and members; | | | | |
| NGOs | - Educate local people to participate in managing, controlling, and | | | | |
| | preserving the communities' fisheries and natural resources | | | | |
| | - Facilitate in advocacy work and in the processes of establishing, | | | | |
| | organizing and managing the CFs. | | | | |
| Fishing Lot | - Operate the business in accordance with policies, regulations, and | | | | |
| Owners | provisions of laws on fisheries | | | | |
| | 1 | | | | |

1.5.7 Conceptual Framework Flowchart

The following flowchart shows the interaction amongst actors in implementing the decentralization policy in fishery management by

establishing CFs. The flowchart also demonstrates the links between policy implementation and human security.

Figure 1.2: Conceptual Framework Flowchart



1.6 Research Method

In order to understand the impact of Cambodia's decentralization policy on fishery management through establishing CFs on the human security of local fishers around Tonle Sap Lake, a qualitative method is applied for this study. This method is used to collection information about the decentralization policy and its implementation regarding fishery management around Tonle Sap Lake at the local level through looking at challenges and opportunities of creating and managing CFs. The situational changes in economic and food security of local fishers in three selected communities are taken as case studies. In this method, open-ended questions, in-depth interviews, focus group discussion, and community observation are applied.

The researcher spent a total of 30 days conducting field work in Cambodia: fifteen days were spent collecting data from informants in the three selected communities (five days in each community); ten days were used to study and collect information from provincial and district government officers and NGO staff in Battambang province and Phnom Penh; and five days were used for travelling. During the field work, the researcher coordinated with two local NGOs, the Fisheries Action Coalition Team (FACT) and Krom Akphiwat Phum (KAWP) (which translates as the Village Development Group). FACT facilitated and introduced the researcher to Kbal Taol and Doun Try communities and some concerned informants, including officers in the Fisheries Administration (FiA) in Battambang. KAWP helped facilitated and introduced the researcher to Prek Trob community. All data and information, however, was collected independently by the researcher.

In each selected community, the researcher interviewed and discussed with CCs, village chiefs, CBOs and CF committees and members, and local fishers. The researcher could not meet and talk with the fishing lot owners due to their lack of cooperation. In order to understand the relationship between deconcentration and democratic decentralization implementation in fishery management at the local level, the researcher interviewed and discussed with provincial government officers of the FiA in Battambang and some local NGOs staff involved in fishery management and CFs in Battambang, such as FACT, KAWP, and Village Support Group (VSG).

1.6.1 Case Studies: Kbal Taol, Doun Try, and Prek Trob villages, Battambang Province

Three adjacent communities around Tonle Sap Lake in Battambang province are selected as the case studies for this thesis, namely: Kbal Taol, Doun Try, and Prek Trob. **Prek Trob** community is located in Prek Norin commune, Ek Phnom district, Battambang province. The village is located in the transition zone of TSL where the lake expands and floods in the rainy season. During this period, the village becomes a breeding area for a wide variety of fish species. In the dry season, when the water from TSL recedes, the transition area is converted to rice paddy fields in the community. There are 334 households (1520 villagers) residing in this community (Prek Trob Village Record, 2010). Fishing is a main source of income for 186 households, who are subsistence fishers (Prek Trob CF Area Management Plan, 2007). In 2000, a 1,224-hectare fishing area was released to be managed by the Prek Trob community. Almost immediately, in August 2002, a CF was established in Prek Trob to manage the community's newly-designated fishing area.

Doun Try community is located in Chrey commune, Moung Russei district, Battambang province. It is located along the Doun Try stream that connects to TSL, and is also in the TSL transition zone. A large area of flooded land and forest in the community is a productive fish sanctuary and a breeding area for a wide variety of fish species in the rainy season. In the dry season, when the water from the lake recedes, a large area of the transition area becomes rice paddy field for the Doun Try community. There are 325 households (1,781 villagers) residing in Doun Try community (Doun Try Village Record, 2010). Fishing is the primary source of income for 300 households who are subsistence-scale fishers (Doun Try CF Area Management Plan, 2008). In 2000, a 19,044-hectare fishing area was released to Doun Try community, although a CF to control the community's fishing area was not established until 2005.

Kbal Taol is located in Koh Chivang commune, Aek Phnom District, Battambang province. It is a remote floating village on Tonle Sap Lake. Currently, there are 679 families (3,077 people) residing in Kbal Taol village (Kbal Taol Village Record, 2010). Fishing is the only source of income for over 90% of the Kbal Taol villager. In 2000, under the fishery reform, 484 hectares of fishing area was released from Fishing Lot 1 of Battambang province to Kbal Taol community. However, a CF has not been established in Kbal Taol community yet. Kbal Taol village has requested for a spacious fishing area from the FiA. However, to date, the proposal has not been approved. According to each village's records, most villagers are subsistence fishers. However, increasingly many villagers, especially in Prek Trob and Doun Try communities, have had to turn from subsistence fishing to secondary occupations as fish catches have declined.

The selected case studies are useful to see a picture of the challenges and opportunities within CFs in organizing and managing CFs. The rebalancing and interaction of powers and responsibilities between local communities, fishery officers and local authorities in this process are also seen from the selected communities. At the same time, the power struggle between local communities and fishing lot owners which exists in Kbal Taol community can be examined. Overall, the changes to economic and food security of local fishers from the different community contexts will be revealed.

1.6.2 Respondents and Sampling Procedures

Respondents are divided into seven main groups: 1) provincial and district fishery officers in Battambang province, 2) local authorities (CCs and village chiefs), 3) local fishers in each selected community, 4) CFs committees, 5) CBOs committees, 6) NGOs staff, and 7) the fishing lots owners (see Table 1.2). The interviews of all informants were conducted in three forms: key informant in-depth interviews, focus group discussions, and individual interviews.

Regarding the key informant in-depth interviews, FACT first introduced key persons and the researcher then used a snowball sampling technique to identify further key informants. Open-ended in-depth interviews were held with key informants. The interviews were mainly conducted individually, but the interviews with CCs were conducted in a group. The key informants for in-depth interviews included CCs and village chiefs in each community, the provincial and district FiA in Battambang province, NGO staff from FACT, KAWP, and VSG, and fishing lot owners.

For the focus group discussions, in each community three separate focus group discussions were arranged: the first group is the CF committee; the second group is the CBOs; and the third group is the local fishers. The selection of informants for the first two focus group discussions was advised by the CF committee and CBO respectively. At least 50% of the CBO and CF committees joined the focus group discussions, and female committee members were highly encouraged to participate.

The focus group discussions with local fishers were conducted with either fulltime or part-time fishers from the selected communities. This focus group discussion was conducted with 10 to 15 participants (at least 40% were women) in each community. The focus group discussions with local fishers were conducted separately from the focus group discussions with CBO and CF committee in a different place and with different participants. A public place in each community was used as the place for this focus group discussion. The selection of fishers in this focus group discussion was randomly selected from the list of fishers' households from the village chief in each community. A household of local fishers was selected from every tenhousehold interval.

Furthermore, in order to collect deeper information about the situation and changes in economic and food security of local people, in each selected community, the researcher interviewed local fishers individually and separately. Nine fishers in Kbal Taol, thirteen fishers in Doun Try, and seven fishers in Prek Trob were interviewed. The researcher travelled around the village from one house to another house to select the fishers and interview them at their houses. The research identified and observed differences from one household to another in terms of living conditions and the state of their houses. The fishers in these interviews were selected by the different physical and economic aspects of their houses in term of size and condition, regardless of their ethnicity, race, and gender. 30% of selected fishers were from better housing (bigger/medium-size houses in a good state of repair) and economic conditions. 30% of selected fishers were from medium housing and economic conditions (medium-sized houses in normal-looking conditions). 40% of selected fishers were from poor housing and economic conditions (small-sized houses with poor-looking conditions). The researcher ensured that fishers were selected from different locations across the village.

During the period of field work in June and July 2011, 18 key informants were interviewed by in-depth interview, 26 fishers were interviewed individually, and 67 informants were interviewed through focus group discussions (Table 1.2).

Table 1.2: Selected Informants

| Informant | # of Selected | Organization | Types of | Sampling Procedure |
|--|---------------|------------------------|------------------------|---------------------|
| Information | Informants | Organization | Interviews | 1 0 |
| Provincial and District fishery officers | 2 | Battambang province | In-depth interview | Snowball |
| CCs | 2 | Kbal Taol | In-depth interviews | Snowball |
| | 3 | Doun Try | | |
| | 1 | Prek Trob | | |
| Village chiefs | 1 | Kbal Taol | In-depth | |
| | 1 | Doun Try | interviews | Snowball |
| | 1 | Prek Trob | | |
| CF committees | 6 | Doun Try | Focus group | Set up by the chief |
| | 5 | Prek Trob | discussions | of CFs |
| CBO committees | 5 | Kbal Taol | Focus group | Set up by the chief |
| | 6 | Doun Try | discussions | of CBOs |
| | 4 | Prek Trob | | |
| Local fishers | 16 | Kbal Taol | Focus group | |
| | 14 | Doun Try | discussions | Randomly |
| | 11 | Prek Trob | | |
| | 9 | Kbal Taol | Individual | |
| | 11 | Doun Try | interviews | Randomly |
| | 6 | Prek Trob | | |
| NGOs staff | 3 | FACT | In-depth | |
| | 2 | KAWP | interviews | Snowball sampling |
| | 2 | VSG | | |

Summary of Informants:

- Provincial and district fishery officers = 2 persons (in-depth interviews)
- Local authorities (CCs and village chiefs) = 9 persons (in-depth interviews)
- NGOs staff = 7 persons (in-depth interviews)
- CBOs committee = 15 persons (focus group discussions)
- CFs committee = 11 persons (focus group discussions)
- Local fishers = 41 persons in focus group discussions and 26 in individual interviews

1.6.3 Data Collection and Research Instruments Used

The data collection and research instruments were divided into two main parts in accordance with the research objectives. The first part was to collect data and information about challenges and opportunities of organizing and managing CFs in Doun Try and Prek Trob communities and to identify the reasons a CF had not been created in Kbal Taol community. This was done in order to understand the implementation of decentralization in fishery management at the local level. The data collected from this part responded to objective one and objective two. For the second part, data and information about changes of economic and food security of local fishers in all three communities were collected. This part responded to the objective three of this study.

1.6.3.1 Understanding the Implementation of Decentralization at the Local Level Through Establishing CFs

Information, such as level of decision-making power, participation, active authorities, resource rights, and the responsibilities of local people, CF committees, local authorities, and fishery officers in establishing, organizing and managing CFs was collected. Maps, photographs, and documents related to the communities and CFs were also collected.

To collect this information, the researcher conducted in-depth interviews with officers from FiA in Battambang province, CCs and village chiefs of selected communities. Three focus group discussions were conducted with CBOs and CFs committees, and local people. The information collected from this group of informants was, primarily, about the rebalancing and interaction of powers and roles between local people and CF committees in establishing, organizing, and controlling the CFs and the community's fishing areas.

Regarding Kbal Taol, information was collected about the reason for not establishing a CF in Kbal Taol community. The focus group discussion with the CBO committee and local fishers in Kbal Taol was conducted to get information about the challenges and opportunities of not having a CF in their community. In-depth interviews were also conducted with NGOs staff from FACT, KAWP, and VSG to get their perspectives and experience. In this way, further understanding on the challenges and opportunities of CFs from involved initiatives were perceived.

Overall, the data and information collected identified and demonstrated the challenges and opportunities of the decentralization policy in the fishery management through establishing CFs locally. The collected information was used to answer objective 1 and objective 2 of this study, and different lists of open questions were prepared for key informants (see Appendixes: C-G). The questions were prepared in English, but the interviews were conducted and explained in Khmer, the researcher's native language.

1.6.4.2 Determining Changes in Economic and Food Security of Local Fishers

To understand the changes in the economic and food security of local fishers in the selected communities since the decentralization policy was introduced, information such as level and sources of household income, job reliability and security, income protection and support, food availability, food supplies and consumption, and food quality and sufficiency was collected. Photographs and documents related to the communities' food and economic security were also collected. A focus group discussion was conducted in each community with ten to fifteen local fishers to understand the general trends and aspects of economic and food security, some local fishers were selected to do individual interviews in each community. Moreover, to collect further information on the local fishers' economic and food security, CCs, village chiefs, CFs and CBOs committees were also interviewed by in-depth interview and through focus group discussions.

To collect the above information, the researcher used a list of questions for the group discussion, and another list of questions for individual interviews with local fishers. Most of the questions were open ended or semi-open ended questions (see Appendixes: A-B). Questions for other components of human security were designed

only to understand the context of the human security of local fisher. The questions were prepared in English. The interviews were conducted and explained in Khmer, the researcher's native language.

1.6.5 Data Treatment and Translation

After data and information was collected from informants, it was translated from Khmer into English. It was then entered into Microsoft Word as a way to keep the collected data in an organized and safe manner. The data is presented in the thesis in a narrative form, with quotes from individuals and descriptions of the key issues and trends identified, analyzed according to the conceptual framework. Overall, the findings of this research are discussed and interpreted through case study description in accordance with the research objectives and conceptual framework.

1.7 Research Scope and Limitation

Due to some difficulties and limitations in collecting the desired information, the researcher was only able to conduct field work in three communities (Kbal Taol, Doun Try and Prek Trob) in Battambang province. Despite there being no language barrier in this study, there were still other constraints regarding access to sensitive information; for example, it was hard to meet and interview government officers and not possible to meet the fishing lot owners.

Moreover, the selected communities added more challenges to the researcher. Doun Try and Prek Trob communities are remote and flooded villages in the transition area of Tonle Sap Lake. Kbal Taol community is an isolated floating village on Tonle Sap Lake. Travelling to these communities is not convenient. For example, the only transportation to Kbal Taol is by boat, while the other two communities can be reached by the motor taxi. Therefore, it was time consuming for the researcher to access the case study sites.

As the field work was conducted during the rainy season, the researcher faced another challenge in dealing with the bad weather. Clean water, electricity, housing, and communication infrastructure were limited. These shortages were the main challenges for the researcher. During the field work in these three communities, the researcher could face risks to health and personal security. To mitigate the health risks, the researcher brought a first aid package, a mosquito net, and mosquito repellent gel; drank and ate clean water and food; and found clean and safe housing to stay in. Regarding personal security, the researcher was careful when traveling from one place to another place by boat or other means.

1.8 Ethical Issues

This study required the collection of information directly from informants from the field. Therefore, it was necessary for the researcher to ensure that the individuals and informants selected for and participating in this study were treated with respect and sensitivity. Research ethics and honesty were highly valued, and the information collected in any cases or situations was purposefully used only for this research. To respect the rights of the informants, the objectives of the research were explained to all interviewees. The researcher made sure that all informants voluntarily consented to participate in the interviews. Maintaining confidentiality and anonymity was a high priority. Whether they provided information for a survey, or responding to an interview, respondents were not required to disclose their personal information. The time and effort expended by all informants were highly appreciated. Interviews, surveys, and other instruments used in the research were designed in such a way that research participants were not embarrassed or asked to do something that might put them in jeopardy. When a voice recorder was used by the researcher, the researcher explained the necessity of doing so to the informants and asked prior permission from them.

1.9 Significance of Research

Tonle Sap Lake has such a diverse geographic and social environment that it has attracted a number of studies and evaluations regarding decentralization, CFs, livelihoods, poverty, environment, gender, and so on. Several organizations have conducted studies around Tonle Sap Lake including the Cambodian Development Resource Institute (CDRI), the World Bank, the Asian Development Bank (ADB), and FACT. Significantly, however, there has been a gap in the study of the relationship between decentralization policy and the human security of local fishers around Tonle Sap Lake.

The present research, therefore, is prepared to determine the positive and negative impacts of decentralization policy on the human security of local fishers. The results of the research will seek to determine the interaction and balance of power and responsibility between the central government and lower government institutions in implementing the decentralization policy regarding fishery management; the challenges and opportunities of creating and managing CFs in communities by local communities, representatives, and local government institutions; and the impact of decentralization on local fishers' human security. The findings of this study will also provide alternative solutions towards better development and management schemes for Tonle Sap Lake in the future.

CHAPTER II

LITERATURE REVIEW

The information in this chapter is divided into three main sections. In the first section an introduction to Cambodia and Tonle Sap Lake provides relevant background information to the study. In the second section, the connection between TSL's fisheries and the human security implications for the people of Cambodia is discussed. In the third section, Cambodia's decentralization policy, particularly in the context of fishery management around Tonle Sap Lake, is summarized.

2.1. Introduction to Cambodia and Tonle Sap Lake

2.1.1. A Brief Introduction to Cambodia

Cambodia, a country of 181,035 square kilometers, is located in Southeast Asia and is bordered by the Gulf of Thailand to the south, Vietnam to the east, Laos to the north and Thailand to the north and west (Figure 2.1). The population of Cambodia is estimated to be 14.3 million in 2011, with an average population density of 84 people per square kilometer (NIS, 2008). The climate is tropical and consists of two main seasons: a wet season from May to November; and a dry season from December to May. Geographically, Cambodia is rather flat, and the dominant geographical features are central lowland plains around the Mekong River and Tonle Sap Lake, and hills in the southwest and north. The population is heavily concentrated in the plains around Phnom Penh and along the Mekong River and Tonle Sap Lake; this indicates the importance of water bodies to the whole country.

A large proportion of Cambodians are engaged in primary-sector activities, namely, paddy cultivation, fishing, forest product extraction and, more recently, waged labor. In 1997, 76% of the total workforce engaged in agriculture, forestry and fishery activities, which marginally reduced to 74% in 2004 (UNDP, 2007). The agricultural sector contributed 32.4% of Cambodia's GDP in 2008 and employs over 70% of the population (RGC, 2010). The fisheries sector contributed 11.4% of Cambodia's GDP in 2001 (Sen, 2005).

In addition to agriculture and fisheries, economic growth has recently been driven by the garment, tourism and construction sectors. As a result of the rapid economic growth over the past decade - approximately 9.5% GDP growth per year between 1999 and 2008 - annual income per capita has increased from US\$281 in 1999 up to US\$739 in 2008 (NIS, 2008).

Figure 2.1: Map of Cambodia



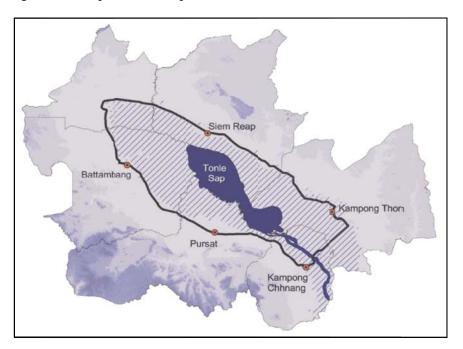
Source: Reproduced from Encarta, 2001, (cited in Keskinen, 2003)

2.1.2. Tonle Sap Lake

Tonle Sap Lake (TSL), also known as the Great Lake, lies in the central plains of Cambodia (Figure 2.2). The lake is surrounded by five provinces: Battambang, Pursat, Kampong Thom, Kampong Chhnang, and Siem Reap provinces. It is the largest permanent freshwater body in Southeast Asia and is among the most productive freshwater ecosystems in the world. TSL is connected to the Mekong River through the 100-km long Tonle Sap River. The large wetland system supports one of the world's most productive freshwater fisheries and the ecosystem is essential to the survival of many globally significant species (ADB, 2004). Because of its ecological, economical, and socio-cultural value, TSL was designated as a UNESCO biosphere in 1997. TSL is unusual because the water flow in the Tonle Sap River, connecting Tonle Sap Lake to the Mekong River, changes direction twice a year: from November to May, Cambodia's dry season, TSL drains into the Mekong River at Phnom Penh; however, when the heavy rains begin in June, water flows from the Mekong River into TSL and TSL backs up to form an enormous lake.

Nearly half of the Cambodian population depends on the lake's resources about one million of them are fishery-dependent communities (MRC, 2010) (Table 2.2). Furthermore, TSL plays a vital role in Khmer cultural identity, which is reflected in the traditions, livelihood, festivals, and cultural/artistic preferences. It is believed that the Khmer Angkor civilization and its many temples could not have prospered without the rich natural resources of Tonle Sap Lake as sources of wealth. For example, evidence of the cultural influence of Tonle Sap Lake can be found in the bas-reliefs of the Bayon temple.

Figure 2.2: Map of Tonle Sap Lake



Source: JICA and Aruna Technologies, cited in Keskinen, 2003

The fisheries productivity of the lake is one of the highest in the world (Baran, Jantunen and Chong, 2007). This productivity is generally attributed to the flooded forest. A total of 200 fish species has been recorded within the lake, although the

number of fish species living in the Tonle Sap River is probably higher and new species are regularly discovered (Table 2.1). The fisheries of Tonle Sap Lake and the Tonle Sap River account for 15–20% of the total freshwater capture fisheries in the lower Mekong Basin and represent 50–70% of the catch for Cambodia (ADB, 2004).

Table 2.1: Tonle Sap Lake at a Glance

| Item | Characteristic | | | | | | | |
|-----------|--|--|--|--|--|--|--|--|
| Area | 250,000-300,000 hectares in the dry season | | | | | | | |
| | 1.0-1.6 million hectares in the wet season | | | | | | | |
| Hydrology | 1-2 meters above mean sea level in the dry season | | | | | | | |
| | 8-11 meters above mean sea level in the wet season | | | | | | | |
| | • 20% of the Mekong river's floodwaters are absorbed by TSL | | | | | | | |
| | • 62% of the TSL's water originates from Mekong River | | | | | | | |
| | 38% of the TSL water originates from the TSL Basin | | | | | | | |
| Biology | The flooded forest contains about 200 plant species | | | | | | | |
| | • The flooded forest extended over more than 1-million hectare | | | | | | | |
| | originally but has been reduced to 614,000 hectares in the 1960s, and | | | | | | | |
| | 362,000 hectares in 1991 | | | | | | | |
| | • Tonle Sap Lake contains at least 200 species of fish, 42 species of | | | | | | | |
| | reptiles, 225 species of birds, and 46 species of mammals | | | | | | | |
| Socio- | • 1.2 million people live in the area bordered by highways No. 5 and No. 6 | | | | | | | |
| economy | Tonle Sap Lake yields about 230,000 tons of fish per annum | | | | | | | |
| | • Rice production in TSL's floodplain makes up about 12% of | | | | | | | |
| | Cambodia's total | | | | | | | |

Source: Asian Development Bank (ADB) 2004

Furthermore, the flooded forest of the Tonle Sap Lake is the largest remaining example of this type of habitat in Southeast Asia (ADB, 2004). The flooded forests contain a diverse array of habitats including shrub lands, stunted swamp forests, gallery forests, and submerged and floating aquatic vegetation. About 200 plant species have been recorded, and the flora as a whole is considered distinct from that of other wetlands associated with the Mekong River, especially with regard to woody species (see Table 2.1).

| Item | Battambang | Kampong Chhang | Kompong Thom | Pursat | Siem Reap |
|---|------------|-------------------|-----------------|---------|--------------|
| Population | 93,129 | 417,693 | 569,060 | 360,445 | 696,164 |
| Average Household size | 5.3 | 5.0 | 5.3 | 5.2 | 5.4 |
| Population density (per square milometer) | 68 | 76 | 41 | 28 | 68 |
| Educational attainment: Primary not completed (%) | 63.4 | 69.9 | 70.7 | 68.3 | 73.2 |
| Source of drinking water: Dug well (%) | 37.8 | 52.9 | 77.5 | 53.3 | 69.7 |
| Source of drinking water: Spring, river, stream (%) | 39.1 | 24.3 | 16.2 | 29.0 | 10.9 |
| Labor force participation rate (%) | 50.7 | 59.1 | 51.9 | 55.6 | 58.2 |
| Unemployment rate (%) | 8.0 | 3.1 | 8.2 | 3.5 | 4.6 |
| Kerosene as main source of light (%) | 83.2 | 89.9 | 89.4 | 88.1 | 88.8 |
| Firewood as main source of cooking fuel (%) | 92.4 | 95.8 | 95.6 | 94.9 | 96.1 |

Source: Asian Development Bank (ADB) 2004

2.2. Tonle Sap Lake and Human Security

Any non-Cambodian traveling, living and working in the region will notice and recognize that while rice is the staple food for many Cambodians, fish in its many forms provides the main protein source in the Cambodian daily diet. Many people would easily conclude that Cambodians need fish for their daily diet more than any other meat. Indeed, there is a Cambodian saying: "wherever there is water, there is fish" (mein dtuk,

mein trey), meaning that Cambodians can find fish from many places around their communities such as small and big rivers, lakes, and ponds which are abundant around the country.

The most important areas for fishing are the Mekong River and TSL, which are the most productive areas in the country. Inland fisheries have a value at landing of between US\$ 150 million and US\$ 250 million, and a retail value of up to US\$ 500 million (Wright, Moffatt and Wager, 2004), and TSL provides around 60% of the commercial fisheries production of Cambodia (ADB, 2004).

Referring to the data of Ahmed (1998, cited in Briones and Garcia 2008:42), in areas far from water bodies the average national fish consumption is 37.5 kg/person/year, whereas in areas where fish are abundant, such as Tonle Sap Lake, the per capita consumption is as high as 76 kg/person/year. In addition, because fishing does not require complicated skills or expensive equipment, and the fish trade can be learned easily from other people, many Cambodians make their living from the fisheries. In Cambodia, it is estimated that over two-million people derive their employment from the fishery sector and related activities (FACT, 2001 cited in World Bank, 2006).

Fish are important in Cambodia in terms of income, nutrition, food security and household risk management (World Bank, 2006:81). Fish have also been the most affordable food source for the poor in Cambodian society for generations. Furthermore, they are act as a safety net for food and economic security for Cambodians either near or far away from water. In this sense, fisheries and access to fisheries are vital to Cambodia's poor, and without fish to provide protein and income many would starve. Therefore, the fair and equitable distribution of these resources, alongside their effective long-term conservation, is vital to the economic and food security of Cambodia's largely rural population. Meanwhile, the contribution of these fisheries to the national economy is also substantial.

Fishing not only provides an immediate protein source, but selling fish can provide vital supplementary income and is especially important for the purchase of rice during periods of food shortage. Given that rice is an essential component of the Cambodian diet, there is an overwhelming need to ensure that families can derive sufficient income to cover shortfalls in rice production. Declining access to common property resources (fisheries) in Cambodia is one of the major causes of food insecurity and malnutrition. TSL and its floodplain alone are home to an estimated 1.2 million people, of which around 25% live in floating villages or raised houses with little or no access to farmland (ADB, 2004). Such a heavy reliance upon fisheries reflects the critical need to ensure equitable access and protection for this resource.

It is not difficult to conclude, therefore, that fisheries are closely related to the human security of local people, particularly their food and economic security. It can be assumed that if food and economic security improves, and because of the close connection of each component in human security, there will also be improvements in other human security indicators such as health, environmental, community, and personal security.

However, in recent decades, the role of TSL and its fisheries in ensuring the economic and food security of local villagers and Cambodia as a whole has worsened. Over the last 20 years, the inland freshwater fishery, particularly around TSL, has been characterized by massive inequity of resource distribution, murky financial transactions concealing widespread corruption, accelerating environmental degradation from unsustainable patterns of exploitation, and an escalating level of conflict between stakeholders (FACT, 2000). Along with fishing communities, the government and the country as a whole have suffered as a result of this change: a large fraction of the potential revenue from fisheries has been lost to corruption and inefficiency. Unequal access rights to community areas, growing population pressures, and the severe poverty of local villagers have led to over-exploitation of fisheries and natural resources in TSL (Serrat, 2005). This has placed TSL ecosystems and the people depending upon the lake's fisheries at risk. There is already evidence that certain fish stocks and species have been in serious decline. This, in turn, will undermine the human security of local villagers.

2.3. Cambodia's Decentralization Policy in Fishery Management

2.3.1. Overview of Decentralization in Cambodia

According to the Constitution of the Kingdom, Cambodia is an indivisible unitary state. Articles 145 and 146 of the Constitution define the territorial administrative management system of the country. It recognizes the capital, provinces, municipalities, districts (called *khan* in Phnom Penh), communes (called *sangkat* in Phnom Penh and municipalities), and villages. These administrative units are governed in accordance with the Law on the Administrative Management of Capital, Provinces, Districts, Municipalities and Khans and the Law on the Administrative Management of Communes and Sangkats 2008. Until the end of 2009, the total number of subnational administrative units includes: 1 capital, 23 provinces, 159 districts, 26 municipalities, 8 khans and 1,621 communes and sangkats (RGC, 2010).

Regarding the government administration, before February 2002 all lower administration levels (provincial, district, commune and village) were appointed directly by the government, and these administrations performed duties and implemented policies on behalf of the central government.

Regarding the executive line agency, line ministries have their own line agencies at the district and provincial levels, which carry out the development policies and plans of their ministries. Line ministry officers are appointed by the central government. For example, within the MAFF, there are lower level departments stationed at the province and district level. In addition, the FiA plans and makes policies regarding fisheries, and has an office in Phnom Penh, together with a Provincial Office of Fisheries (POF) and units at the district level.

Under this system the central government has retained ownership and responsibility for all functions that have been delegated to subnational administrations or line departments. This delegation includes specific controls and instructions, such that local administrations and agencies have to respond and be accountable upwards to the Royal Government of Cambodia on how it has implemented the delegated functions (RGC, 2010).

In connection with decentralization, the Cambodian approach has grown out of the Seila³ initiative since 1996, and from the initial decentralization agenda set by the RGC in 1999. In relation to this, many initiatives have commenced. In March

³ The Seila Program was initiated in 1996 as an aid-coordination mechanism intended to mobilize domestic resources in support of decentralized and deconcentrated approaches to local and rural development management

2001, the Organic Law, the Law on the Administration Management of Commune/Sangkat, and the Law on the Election of the Commune/Sangkat Council were adopted. Subsequently, in June 2004, the RGC committed to a policy of good governance in the form of the "Rectangular Strategy for Growth, Employment, Equity and Efficiency – Phase I". The core of the Rectangular Strategy is good governance focused on four reform areas: (1) anti-corruption, (2) legal and judicial reform, (3) public administration reform including decentralization and deconcentration, and (4) reform of the armed forces, especially demobilization (RGC, 2004). In June 2005, the government adopted the strategic framework on Decentralization and Deconcentration (D&D) reform aiming to broaden sustainable development and intending to lay a strong foundation for economic growth, provide equitable opportunity for all citizens to participate in community development, promote sustainable environmental and natural resource management, and improve public service delivery in response to people's needs (RGC, 2010).

In this regard, Cambodian decentralization formally came into force in February 2002 when Cambodian people went to the polls to elect the first Commune Councils (Rusten, Kim, Eng and Pak, 2004:13). Five years later, the second commune election was held and administrated in 2007, meaning that Cambodian decentralization has been maintained, and powers and responsibilities had been transferred to local level institutions to improve the performance of those institutions in delivering services to local level. The commune elections are significant milestones in the Cambodian government's policy of decentralization, which is intended both to strengthen and expand local democracy, and promote development and reduce poverty (Pellini and Ayres, 2007:404).

As in most cases of decentralization around the world, appearances can be deceiving. The implementation process of the decentralization policy has given cause for concern. As decentralization has been driven by a set of political, economic, fiscal and cultural realities, Cambodian decentralization has taken place within some binding constraints. It is seen that Cambodian decentralization has suffered several challenges: the first challenge is the deeply embedded bureaucratic culture of hierarchy and patrimony that struggle to adapt to the new governing and political environment; the second challenge is the strong power of the central government ministries still project

control over lower levels of local governments and communities; the third challenge is the general lack of attention to the issues of corruption, poor public service delivery and the state-society links; and the fourth challenge is the indirect election features and the lack of a public sector accountability to local people (Smoke and Morison 2008:20). Furthermore, it could be concluded that the apparent "success" of decentralization in Cambodia is illusory, as local governments have no adequate capacity to undertake larger responsibilities and collaborate with other governmental and nongovernmental agencies. Considering all these factors, it remains doubtful whether the RGC is able to fully implement decentralization and fulfill this national policy to meet the desired goals.

2.3.2. Fishery Management Policy

2.3.2.1. Historical Management of Fisheries

Cambodia's inland fishery, especially around the Tonle Sap Lake, has a long history, possibly predating the Angkor era (MRC, 2004). Visible evidence, from about 800–1000 years ago, that the lake's freshwater fish were exploited for local consumption, is seen on the carvings on the Bayon and Angkor Wat temples in Siem Reap.

The fishery resource management system has varied in accordance with the different political regimes of Cambodia. Under the reign of King Norodom (1859-1897), there were no specific laws for the management of the fishery resources, and fishery management was governed by the selling of user rights to fishing areas. Investors and Chinese traders purchased these fishing concessions from the King and subleased them to fishers, often earning twice the amount paid to the Royal Treasury (McKenny and Prom, 2002:59).

In 1908, under the French colonial administration, fishery laws and regulations were first written and published, but the purpose of these legislations was to generate revenue for the colonial administration, not to change existing patterns of fisheries exploitation (Daren and Nao, 2000 cited in McKenny and Prom, 2002:59). Over the succeeding decades under the socialist policies of King Norodom Sihaknouk, no

major changes occurred in the concession and subleasing system of fisheries management until the rise of the Democratic Kampuchea regime under Pol Pot (McKenny and Prom, 2002). During the Democratic Kampuchea regime (1975-1979), fishing was officially discouraged, and only a few designated 'fishing units' harvested and processed fish to supply to the cooperatives (sahakor) and *Khmer Rouge* cadres (Thay, 2002 and Mckenny *at al*, 2002 cited in Thay and Schmitd, 2004).

After the collapse of the Khmer Rouge regime in 1979, the People's Republic of Kampuchea (1979-89) encouraged collective fishing by solidarity groups called "Krom Samaki" (McKenny and Prom, 2002). These groups soon proved ineffective and were consequently abandoned. In 1987, a new fishery law was adopted, defining a framework for fisheries management that included temporal and spatial arrangements for access rights and gear restrictions, and reintroduced the fishing lot concession system as a management tool and as a source of government revenue (Thay, 2002 cited in Thay and Schmitd, 2004). The fishing concession system was similar to what had existed for more than a century prior to the rise of the Democratic Kampuchea regime. This system remains the primary approach to managing fisheries to the present. The government's main motivation for a return to the concession system in the late-1980s appears to have been the need to raise revenue (Degen *at al*, 2000 cited in McKenny and Prom, 2002).

From 1987 till 2005, the applicable and legal framework of inland fisheries management relied on the 1987 Fiat Law. The Department of Fisheries (DOF) within the Ministry of Agriculture, Forestry and Fisheries (MAFF) held a mandate and was granted the regulatory authority to manage, protect, conserve and develop fisheries resources, grant concessions and issue licenses, collect fees from these activities, and control processing, trade and export activities (Thay and Schmidt, 2004). In 2005, the Sub-Deree on Community Fisheries Management was passed and enforced as a way to deliver control of fishery resources to local communities. In 2006, a new "Law on Fisheries" was adopted, and the Fisheries Administration (FiA) was created to replace the Department of Fisheries.

2.3.2.2. Current Fishery Management Policy

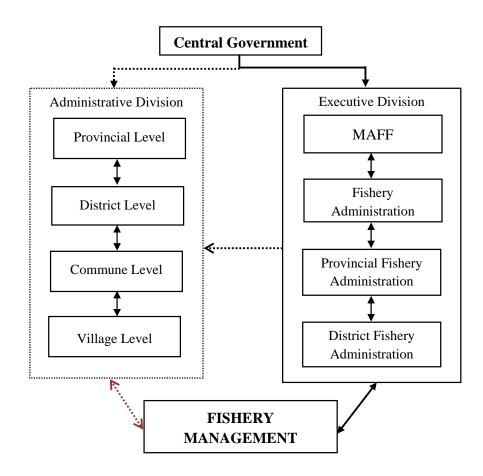
After the RGC returned 56% of the fishing lot areas to local communities to form CFs in 2000, the policy of fishery management around the lake changed to let local communities manage fishery resources themselves instead of the lot system. Following the release of the fishing areas in 2000 and in the absence of decentralization laws in fishery management, over one hundred CFs were created by local communities in their own way with support and facilitation by local NGOs and INGOs.

However, the government recognized the need for more formalized arrangements and guidelines for CFs and in 2005, 2006 and 2007 the Ministry of Agriculture, Forestry and Fisheries issued the Sub-decree on Community Fisheries Management, the Fisheries Law, and a *prakas* on Guidelines for Community Fisheries, respectively. The sub-decree states the government has an important role to play in setting guidelines and standards for CFs and monitoring implementation. The Sub-decree has also increased the government's involvement in creating, governing and organizing CFs.

Today, as is the case in other areas in Cambodia, the management of fisheries around TSL is the responsibility of MAFF, and MAFF also has general jurisdiction over CFs management. Under MAFF, the Fishery Administration (FiA) is the institution responsible for administering fishery management in Cambodia. Under the FiA, there are provincial and district level fishery administrations in each province. The main FiA office is situated in the capital city, and the provincial FiA is stationed in the provincial town. The district FiA is a local FiA office stationed in the district to work closely with local people and CFs. Moreover, the FiA has a Community Fisheries Development Department (CFDD) whose mission is to facilitate the establishment of CFs throughout Cambodia and support their functioning as management partners with the FiA aiming for efficient, sustainable and equitable use of the living aquatic resources (MAFF, 2002; Sem, 2003 cited in Viner, Ahmed, Bjørndal and Lorenzen, 2006).

In the context of Cambodian decentralization, the administrative system, along with the executive system, is also involved in the process of implementing the current fishery management. The national government devolves functions and responsibilities for designing, financing, and delivering public services and development programs from the central level to provincial and lower levels. As per the Sub-decree on Community Fisheries Management (2005), the government authorities in the administrative offices need to cooperate in the implementation and development of fishery management with the MAFF and its executive line agencies.

Figure 2.3: Cambodian Fishery Management Structure



2.3.2.3. Regulations on Inland Fishery Domain and Fishing Gears

Under the Law on Fisheries (2006), Cambodia's inland fishery domain is divided into:

• *Concession fishing lots*: Areas allocated for investment or hiring by private owners. The fishing lot areas are leased out to the highest bidder for exclusive

rights to commercial fishing for a two-year concession period. The lots are operated during the fishing season from October to May. These lots are often the most productive fishing grounds in the area (McKenny and Prom, 2002).

- *Fishery conservation areas*: Defined as habitats of aquatic flora and fauna. All fishing practices and access to the areas are prohibited.
- *Inundated forest areas*: Include inundated forest zones, which are important habitats for aquatic animal feeding, spawning and breeding.
- *Family-scale fishing areas*: Areas reserved for local communities for traditional community fishing. The family-scale fishing areas are granted to local communities and are managed by CFs. The work of CFs is to control the community's fishing area sustainably and to bring mutual benefit for the community.
- Open access areas: Areas which are not otherwise classified as any of the above areas. Subsistence-scale fishers can do fishing in the open access areas. Middle-scale fishers using middle-scale fishing gears are also entitled to do fishing in the open access areas. The open access areas are also used by the public for travelling purposes.

Normally the family-scale fishing areas are allocated to the community in areas nearby the villages, regardless of fishery productivity. The community fishing areas are open spaces and are usually allocated in shallow areas. As fish migrate to deeper areas during the open season when the water in the lake recedes, and fishing lot areas are normally allocated in deeper-water areas where the fish normally migrate to from the shallow area, the fishing lot areas can then trap fish and prevent them from moving to other areas. Comparing the concession fishing lot areas with the community fishing areas, the concession fishing lot areas are the most productive fishing areas.

According to the Law on Fisheries (2006), fishing practices in Cambodia are also classified according to three types of fishing gears used:

• *Small-scale fishing gears* are traditional fishing gears used by subsistence fishers. Subsistence fishers can use small-scale fishing gears to do fishing at anytime in the open access areas and in the family-scale fishing areas, and in commercial fishing lot areas during the closed season.

- Medium-scale fishing gears are characterized by the use of larger-scale fishing gear than family fishers, but smaller in scale than commercial fishing lot operations. The MAFF requires users of this gear to obtain a license and restricts the fishing only during the open season, but allows fishing anywhere in the open access areas (McKenny and Prom, 2002). Medium-scale fishing gear operators are required to pay tax and fishing fees to the government, and to follow the regulations stipulated in the fishing license.
- *Large-scale fishing gears* are defined as industrial fishing gears. They are allowed to be used only by fishing lot owners and are operated in the fishing lot areas. Large-scale fishing gear operators are also required to have a fishing license, to pay tax and to pay fishing fees to the government, and to follow the regulations stipulated in the fishing license.

It is widely known to local communities and the authorities that illegal fishing around TSL is commonly practiced by both medium-scale and large-scale fishing fishers more often than by subsistence fishers. The illegal fishing activities of the medium-scale and large-scale fishing operators are not only practiced in the fishing lot areas, but also in the open access areas and the community fishing areas where often CFs are unable to prevent it.

2.3.3. Community Fisheries (CFs)

2.3.3.1. Current Status of CFs

Up to 2005, it was reported that 440 CFs had been established in Cambodia, including 405 in freshwater fisheries and 35 in the marine fisheries domains (MAFF, 2006). By August 2009, according to FiA records, 469 CFs are being operated in Cambodia or are at various levels of formation and approval. There are 181 CFs in the five provinces around TSL, and of these 42 CFs with 15,438 members are in Battambang province (Table 2.3). However, not all CF members are actively involved in the activities of CFs.

| | # of CFs | # of | # of | # of CFs | # of | # of | # of |
|------------|-------------|-------|------|-----------|-----------|----------|---------|
| Province | established | CFs | CFs | with | CFs with | involved | members |
| | | with | with | agreement | mgmt plan | HHs | |
| | | bylaw | maps | | | | |
| Kg. Thom | 31 | 31 | 31 | 31 | 31 | 7,841 | 10,676 |
| Siem Reap | 22 | 22 | 22 | 22 | 22 | 15,013 | 21,821 |
| Battambang | 42 | 42 | 40 | 40 | 40 | 10,864 | 15,438 |
| Pursat | 34 | 28 | 27 | 27 | 27 | 8,101 | 20,867 |
| Kg. | 52 | 52 | 52 | 52 | 52 | 6,585 | 3,146 |
| Chhnang | | | | | | 0,385 | 3,140 |
| Total | 181 | 175 | 172 | 172 | 172 | 48,404 | 71,948 |

Table 2.3: Status of Community Fisheries in provinces around Tonle Sap Lake

Source: Data Record from Fishery Administration in Battambang province in June 2009

2.3.3.2. Procedures of Establishing CFs

Between 2000 and 2005, the Sub-Decree on Community Fisheries Management was yet to be passed. Therefore, during this period CFs were created, organized, and managed by the community in their own way without the formal involvement of fishery officers. Moreover, CFs did not prepare formal administrative documents or receive official approval from the government in order to legally create a CF. Instead, CFs were just acknowledged and approved by the local authorities, namely the CCs and village chiefs.

Since 2005, the Sub-Decree on Community Fisheries Management has been in effect and CFs should be created with technical and administrative support from the MAFF, as well as by coordinating with local communities, authorities and other actors such as NGOs. Specifically, the procedure of creating CFs has changed to be under the coordination of the CFDD within the FiA. This procedure in establishing CFs is seen as more complicated compared with the procedure before the sub-decree. For example, according to the Sub-Decree on Community Fishery Management (2005) a legal and functional CF shall have, at the very least, "CF Bylaws", a "CF Area Management Plan", and a "CF Area Agreement". Furthermore, all of these administrative documents are to be recognized and approved by the authorities responsible. In accordance with the provisions of the Sub-Decree on Community Fisheries Management (2005), the complete process requires a CF to be endorsed at every step, from the district, provincial and capital FiA to the MAFF.

Reflecting on the above, the procedure of creating CFs as well as the management of CFs is found to clearly be a co-management arrangement between the lower government institutions and local communities. It requires a good partnership between the government and communities in order to ensure a successful CFs. However, the procedure can only work if the lower government institutions and local communities understand and balance their responsibilities, powers, and accountabilities appropriately. Otherwise, it will prove impossible that decentralizing fishery management to CFs can be a solution to fishery management around TSL.

2.3.3.3. Opportunities and Challenges of CFs

The idea of establishing CFs can be seen as an opportunity for local communities to gain ownership over the community fishing areas where fishing lots have been cancelled or released in part. Furthermore, local communities are entitled to use their decision-making powers to select CF committees, to stand for election for the CF committees, and to participate in managing and protecting the community fishing areas and inundated forest areas. As per the Sub-decree on Community Fisheries Management (2005), CFs are expected to manage fisheries resources in a sustainable manner and ensure equitable sharing of benefits from fisheries resources for local communities. Through direct participation in managing, using and protecting fisheries resources, CFs might increase the understanding and recognition of local people in the benefits and importance of fisheries resources. Finally, CFs can be seen as an attempt by the RGC to improve the standard of living for local people in order to contribute to poverty reduction.

Some challenges to CFs also exist, however. First, a functional and successful CF cannot be accomplished if all involved actors do not work well together. This requires responsible fishery officers to be responsive and accountable to CFs and local people, and local people and CF committees have to engage actively in the activities of CFs. At the same time, government authorities including provincial and district governors, commune councils (CCs) and village chiefs are expected to cooperate well

in all processes of establishing and managing CFs and community fishing areas. This is seen as a difficult task to make a meaningful implementation when experience, competent human resources and public budgets are inadequately in place.

Further challenges to CFs are identified by Kim and Öjendal (2007) in that a culture of decentralization has not yet fully developed locally to implement the management at local levels. Other issues that they identify include: the limited knowledge and participation of local communities in managing and controlling CFs; the interaction and balance of powers of involved actors; and a limited sense of accountability and lack of responsiveness of officers and experts in the fishery sector to local communities.

Studies by FACT (2005) and Kim and Öjendal (2007) reveal that it is widely known by local communities and authorities that fishery officers and military police have been involved in the protection of illegal fishing operations. In this regard, it is difficult for local communities to expect the fishery officers to fulfill their roles and duties in controlling and protecting the community fishing areas. All of the above challenges of CFs have turned out to be a barrier for establishing and managing CFs successfully.

2.4. Research Gaps

Tonle Sap Lake has attracted a number of studies and evaluations. The literature and studies conducted to date around TSL focus mainly on poverty assessment, socio-economic evaluation, fishery management and livelihoods, environment, genders, and so on. There exists a research gap investigating the connection between the government's decentralization policy in managing fisheries resources in TSL and the human security of local fishers. Therefore, this study intends to contribute towards filling this gap by investigating the impacts of decentralization policy in fishery management on human security of local fishers around TSL.

CHAPTER III

CHALLENGES AND OPPORTUNITIES OF DOUN TRY AND PREK TROB COMMUNITY FISHERIES

This chapter seeks to answer the first sub-question of the study, namely "In the case of the Prek Trob and Doun Try communities, how have community fisheries (CFs) been created and what have been the challenges and opportunities so far?" Because of the different circumstances of the Prek Trob and Doun Try communities, the case studies which consider challenges and opportunities in creating and managing CFs and the process of democratic decentralization are presented separately in Sections 3.1 and 3.2 respectively. However, there are significant similarities in the process of deconcentration between both Prek Trob and Doun Try communities, and therefore, this analysis is presented jointly in Section 3.3. Following this, a comparative analysis of the Prek Trob and Doun Try communities is presented in Section 3.4. Finally, Section 3.5 offers a summary of the findings and analysis for this chapter.

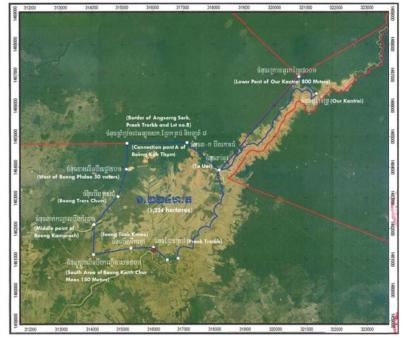
3.1. Prek Trob Community

3.1.1. Introduction to Prek Trob Community

The Prek Trob community is one of ten villages in Prek Norin commune, Aek Phnom district, Battambang province. Located in the transition zone connected to Tonle Sap Lake, the village is flooded in the wet season and provides a breeding area for a wide variety of fish species. In the dry season, when water from TSL recedes, some areas of the transition zone become agricultural areas for local villagers. There are 242 hectares of land for paddy rice, excluding 300 hectares of newly cleared flooded-forest land now prepared for paddy rice, and 30 hectares of land for housing in Prek Trob. A lake called Toek Khmao Lake of about 9 hectares is allocated as a fish conservation area in the village. The flooded forest covers a permanent area of 230 hectares, and this area is being protected by the Prek Trob CF. Currently, there are 334 households (1,650 people; 860 of them women) residing in Prek Trob (Prek Trob Community, 2010).

About 90% of the Prek Trob villagers are rice farmers, who are able to harvest twice a year. Fishing is a complementary job for 186 households after or during their harvest period as additional income to support their living (Prek Trob CF, 2007). However, fishing remains important to them because the villagers in this community own or are provided only a small plot of land for farming that hardly supports their living expenses. In Prek Trob, a CF was established on August 20, 2002. Since then, 216 households have voluntarily supported and registered as members of the CF.





Source: Prek Trob CF, 2007

3.1.2. Democratic Decentralization: Challenges and Opportunities of Prek Trob CF

3.1.2.1. The Process of Creating Prek Trob CF

Prek Trob had conflicts with Fishing Lots 7, 8, and 9 of Battambang province during the 1990s. Usually, the fishing lots claimed that the fishing lot area was where

the water spread. This unclear boundary brought controversy over the fishing areas and left insufficient fishing areas for the community. A group of about 500 people from Prek Trob and nearby villages protested against the fishing lots in late 1990s, and violence occurred. A group of angry villagers destroyed the blocks used by the fishing lot that indicated the boundary of that fishing lot area. Unfortunately, eight villagers from Prek Trob and some from other nearby villages were charged by the fishing lot owners with destroying private property. As a result, however, the protest movement from the Prek Trob community involved in contesting the disputes became stronger, and the whole community unified to challenge the charges and help each other with financial and moral support. As a result of the pressure from the unified community, all arrested villagers from Prek Trob were released by the Battambang provincial court and then the case was closed in 2002.

Figure 3.2: Photograph of the Prek Trob Community in the Dry Season



Note: This is the view of transition area in the Prek Trob community in the dry season when it is farmed as a paddy field. This area is flooded during the rainy season. Local people can do family-scale fishing during rainy season in this area. This area is located behind the village.

In 2000, after the release of the fishing areas as part of the fishery management reform in Cambodia, 1,224 hectares of fishing area was released to be managed by the Prek Trob community. Local people had a keen interest in finding a

way to control the community's fishing area. Several meetings were held and organized by Prek Trob villagers to identify an appropriate solution for the majority of local people. The idea of forming a community fishery (CF) was agreed on by local villagers in order to control the community's fishing area, and most of the Prek Trob villagers were happy to support this idea. The community also proposed the establishment of KAWP,⁴ an NGO, to coordinate and support the processes of establishing and managing the CF in their community.

The CF in Prek Trob was established through many meetings between local people, and about 90% of local people participated in the processes. The election was conducted in three steps. First, all villagers were informed about the proposal to establish a CF in the village and were requested to name persons that they wanted as their representatives. At this stage, after the first meeting and election, 50 representatives from among the villagers were short-listed. Then, in a subsequent meeting, the villagers were asked to select 16 members from those short-listed (about 30% are women) for the next round of selection. Finally, in a third election, 7 persons were finally elected by the local villagers as the CF committee of Prek Trob. A woman was elected as one of the heads of the CF committee. However, a few years later, she resigned because of family problems.

Local authorities, namely the Prek Trob village chief and Prek Norin Commune Council (CC), participated, cooperated and monitored the process of the CF committee election and the creation of the CF. Fishery officers were also invited to attend the final election of CF committee, but they did not have any active role in the process. KAWP was the only organization that helped to coordinate and support establishing the Prek Trob CF.

"We were very happy that a fishing area was released to our community, and this was very important to our community. We thought that we had to manage and control it properly. Before the election for the CF committee, two or three meetings were held in our village to find a solution to control the community fishing area. And in the process of selecting the CF committee, three different

⁴ Krom Akphiwat Phum meaning *Village Development Group* is a local organization based in Battambang province working to develop poor communities along Tonle Sap Lake since 1993.

meetings were conducted. In the process of establishing the CF in our community, almost all local villagers participated and strongly supported this process."⁵

During the establishment of the Prek Trob CF, the idea of forming a CF emerged from the request by community, which then unified behind the proposal. The CF was initially established at a time when the community was strongly unified by the need to challenge a neighboring fishing lot owner over a dispute on the fishing lot border location. In this regard, the Prek Trob has a strong sense of its own interest. This is seen to be a key factor in building a foundation for Prek Trob CF, and is also important to ensure local peoples' continued participation in further activities of the CF.

Furthermore, it is evident that Prek Trob CF was created in an open and equitable manner within the community. For example, regarding gender, women participated throughout the process of establishing and managing the CF.

Overall, it is significant that the support and participation of local people in forming the CF in Prek Trob community meant that they exercised their own rights and decision-making power to become involved in their community development. In this way, the CF truly grew out of the wishes of the community majority. The elected committees were strongly representative of the locals, and the power of the elected CF committee was actually transferred from the local community itself, such that the CF committee is more accountable to Prek Trob community compared with fishery officers or local authorities.

It is also important to note that Prek Trob CF was established in 2002 before the enforcement of the Sub-Decree on Community Fisheries Management in 2005. Therefore, there were not any official processes required. This meant the Prek Trob CF was created, organized, and managed by the community in their own way without the formal involvement of fishery officers. The effective intervention by KAWP, including financial and technical assistance, is another important factor in successfully creating a CF in Prek Trob.

⁵ Extracted from a focus group discussion with the committee of Prek Trob CF in July, 2011

Though the creation of the Prek Trob CF did not require the involvement of fishery officers, the culture of the local villagers is to normally invite local authorities or concerned government officers to witness their activities to show respect to the government authorities and foster a sense of cooperation between the local community and officials. Therefore, the involvement of government officers in this process could be seen as a critical point. Importantly, in the case of Prek Trob, the participation of fishery officers as well as local authorities did not interrupt the process of establishing the CF because they did not have any legal or formal direction over this process. In other words, the participation of fishery officers and local authorities was regarded as collaboration with Prek Trob community in the process of establishing and despite the erstwhile and minimal involvement of fishery officers and local authorities, it can be concluded that the Prek Trob community formed their CF in their own way.

3.1.2.2. Participation of Local Community and CF Management

Before the CF was established in Prek Trob, the fishing area was already disorganized. In the first two or three years after the fishing area was released from the fishing lot to the Prek Trob community, during 2000-2002, local people thought that they could do whatever they wanted in the fishing area in their community, such that the villagers themselves conducted various illegal fishing activities. However, most of these fishing offenses were conducted by only a small group of wealthy people in the village. During that period, the participation and awareness of local people in protecting and preserving the community's natural resources were limited, and, despite the CF in Prek Trob being established in 2002, fishing offenses by wealthy people in the village remained high, at first.

After the Prek Trob CF was established, the CF committee understood that successful natural resource management in the village could not happen if local people did not participate, and, in order to get them involved, local people have to know and understand the importance of the community's fisheries and natural resources. Several meetings and presentations with the community were conducted every month after establishing the CF in order to get local people involved in the activities of the CF and to understand their rights and powers over the community's fisheries and resources. Moreover, it was important that the Prek Trob CF committee themselves were seen to be honest and transparent and to show a firm commitment to the community and CF members. At the same time, the capacity of the CF committee had to be developed to undertake its responsibilities effectively.

"We (the committee) do not have money, and we do not get paid, but we were elected to manage our community's fishing areas and resources. We have only seven people in our team. How can these seven people control all the community's fishing areas if local people do not join with us? Therefore, we really need hundreds of people in our village to help us in this work; otherwise, we will lose together."⁶

As a result, a large number of local people understood and were happy to support and participate in the activities of the CF in managing and protecting the fisheries and natural resources in the village, and illegal fishing activities in the village reduced remarkably as even the wealthier villagers understood and participated in protecting and preserving the community's natural resources.

"The success of our CF is the successful result of participation by local people and their understanding of fisheries and natural resources management. Their participation is the great force that we (the committee) need, and it always motivates us to remember the community and work harder for them."⁷

The participation of local people in the activities of the CF depends on whether the CF works for the common interests of the community or not. Openness, honesty and high commitment to the CF seem to be the related to the level of awareness about the situation of fishing in the community and the threats to it.

⁶ Focus group discussion with Prek Trob CF on July 01, 2011

⁷ Focus group discussion with Prek Trob CF on July 01, 2011

"We went to help guard the fishing area of our community with other people and the CF committee because we see they do not work for their own interests. The more we work together, the more we know and trust in each other. So since then, we are happy to participate and support the CF in our community.⁸

According to the principle of the democratic decentralization, the involvement of CF committee, who are the community's representatives in making plans to manage and develop the community's fishing area, is necessary. It opens a critical opportunity for the community or their representatives to use their democratic rights and powers to articulate the management and development plan for their community. Most importantly, the idea of getting local people increasing involved and building their awareness of the community's natural resource management is a key point for organizing and managing the Prek Trob CF. As a result, the Prek Trob CF is more democratic and responsive to the local community.

3.1.2.3. CF's Role in Protecting the Community Area and Cooperating with Other Stakeholders

CF and Provincial Fishery Administration

A few years after Prek Trob CF was established, the Sub-Decree on Community Fisheries Management was passed in 2005. Articles 13 and 20 of the subdecree stipulate that managing and protecting the community's fishing area requires a partnership between fishery officers and CF committees. The CF committees have to conserve and protect the aquatic life within their communities' fishing areas. They are also responsible for immediately reporting and providing information on any fishery violations in their community fishing area to the nearest fishery officers. In turn, fishery officers are responsible for intervening, stopping and suppressing fishery offences in the communities' fishing areas.

During 2003, the Prek Trob CF and local villagers worked actively to cooperate with fishery officers in this regard. However, in practice, fishery officers were unresponsive to the requests of the Prek Trob CF and were ineffective in

⁸ Local villagers in Prek Trob community, July 2011

combating illegal fishing practices. The fishery officers were accused by local communities and the CF of corruption in their work. As a result, cooperation between the CF committee and fishery officers did not work (see Section 3.3.2 for details).

"In the first one or two years, it was complicated for our CF as we had to cooperate with fishery officers. During that time, our CF did not work effectively in managing and protecting our community fishing area, especially combating illegal fishing activities. For example, almost every time that we (CF committees and local people) reported illegal fishing to fishery officers, it seemed that illegal fishers were immediately informed and told to escape before the fishery officers arrived. And in cases where the illegal fishing gears were confiscated by fishery officers, a few days later those illegal fishing gears were given back to the owner. Overtime, as our cooperation with the fishery officers met with little success, we found it difficult to trust and cooperate with them."⁹

CF and Local Authorities

Having failed to build trust with the fisheries officers, the Prek Trob CF tried alternative approaches and identified that they could cooperate with their local authorities to intervene in illegal fishing practice. To achieve this, the CF committee worked actively to persuade the Commune Council (CC) to understand, support, and cooperate with their CF work. KAWP also supported this work. The CF committee identified that to receive cooperation from local authorities it was important that the CF and their local authorities work together more often, and therefore some activities were strategically organized by the CF committee. For example, the Prek Norin commune chief, the CC, as well as the village chief, were invited to join almost every meeting and workshop with the Prek Trob CF. Some intensive training courses, regarding basic rights and the relevant fishery laws, were also provided to local authorities and the CF by KAWP. A number of public forums, with the participation of the villagers, the CF, and the local authorities, were also held as an open dialogue between local authorities and local people. In addition, some study tours that allowed

⁹ A focus group discussion with Prek Trob CF committee in July 2011

local authorities, the CF, and local people to learn best practices from other communities were also organized and supported by KAWP.

As a result, the local authorities increasingly participated and became involved in the work of the CF, such that, to date, the Prek Trob CF has received firm support from the local authorities in managing and controlling the community's fishing area. As a result, since 2004, Prek Trob stopped reporting illegal fishing activities to fishery officers and did not request for their intervention. Instead, the intervention and suppression of illegal fishing activities has been conducted through the direct cooperation of the Prek Norin CC, the commune police, the CF committee, and local villagers. Adapting to the initial failure of fisheries officers to do their job, they work together to stop the fishing crimes first, arrest the violators, and then make a report to the fishery officers later.

The active work of the Prek Trob CF committee under the local authorities' cooperation has produced a satisfactory result. Since early 2004, illegal fishing activities in Prek Trob's fishing area have been almost completely prevented. At the same time, local people have ensured their access to the community's fishing area, and have increasingly engaged in managing and preserving the community's fisheries and natural resources.

"The newly elected CF committee is like a child who has just started walking. They could not do all work on their own; we (Prek Norin CC) have to support them and help them, by all the means we could. My observation is that any community not having support and cooperation from CCs or local authorities will never succeed. Local authorities, especially CCs, have to be firm and supportive to local communities in managing and controlling the community fishing areas. We know this is important, so we never ignore our communities."¹⁰

3.1.2.4. The Outcome of Democratic Decentralization in Prek Trob

The case study reveals that local villagers and the CF committee have been successful in advocating and demanding more responsibilities and powers of their

¹⁰ In-depth interview with the chief of the Prek Norin commune in July 2011.

own over their community's fishing area through democratic decentralization. This reveals that when more rights and powers are in hands of local people, they also receive more benefits. For example, to date, meetings between the CCs and the Prek Trob CF are held monthly. As a result, the Prek Trob community development plan has been adapted and is included in the Commune Investment Plan (CIP), which is a package of funds from the central government for commune-level development. The ongoing dialogue between the Prek Trob community and the local authorities about their community development is an important factor to ensure their community concerns are included in the CIP.

As a result, the Prek Trob CF can work independently and claim ownership of their community's fisheries and natural resources and almost all fishing offenses have been prevented in the community fishing area. The improved capacity of the CF committee is an important factor that makes the management team stronger and more effective. Support, cooperation, and motivation from NGOs, local authorities, and the local community are other important factors in the success of the Prek Trob CF.

Significantly, there has been no conflict between the fishing lot owners and the Prek Trob community since 2004. In fact, after being convinced that some fish from the fish conservation area in Prek Trob migrate into the fishing lot area in the dry season, the owner of Fishing Lot 8 in Battambang province built a station for the Prek Trob CF to guard the fish protection area. This represents a major achievement of Prek Trob in securing the cooperation of the fishing lot owners to support their work.

The case of the Prek Trob CF represents the successful management and control of a community fishing area, implemented with cooperation between local people, the CF committee, and local authorities, and without (or with little) involvement of fishery officers.

3.2. Down Try Community

3.2.1. Introduction to Doun Try

Doun Try community is located in Chhrey commune, Morng Russey district, Battambang province. It is also a village located in the transition area along the Doun Try stream that flows into the TSL. A large part of the village is flooded in the rainy season, while a higher area along the Doun Try stream is not flooded. A large area of the transition area is used as paddy fields for local villagers in the dry season. A large area of flooded forest that forms about half of the community fishing area (19,044 hectares) is the most productive fish sanctuary for nearby villages and a breeding area for a wide variety of fish species (Doun Try Community, 2010). A part of the Doun Try stream that flows through Doun Try is preserved as a fish conservation area. According to Doun Try village data, in 2010, there are 325 households (1,781 people; 860 of them women) residing in Doun Try, with 2,470 hectares of land for paddy rice and 10 hectares of land for housing.

Five years ago, fishing was the primary income for the majority of the Doun Try community when 300 households were permanent fishers (Doun Try CF, 2008). However, later the number of fishermen in Doun Try village has decreased dramatically due to the decline of fish stock in their community. At present, fishing is only a secondary source of income for the majority of Doun Try community and 85% of villagers are farmers. However, fishing still remains important to Doun Try villagers because rice farming in the village is unpredictable due to insufficient irrigation systems.

In early 2000, like many other villages around the Tonle Sap Lake, a large fishing area of 19,044 hectares was released to the Doun Try community. However, between 2000 and 2005, the released fishing area was not under any specific management. During this period, local fishers from the Doun Try community, fishers from other villages, fishery officers, and wealthy fishers inside or outside the village competed to fish and gain the maximum benefit from the community fishing area.

In 2005, a CF called the Doun Try CF was formed and organized in Doun Try village to control the community's fishing area. The CF committee has since completed two mandates. For both mandates of the CF committee, there was at least one woman selected for the CF committee, and in the second mandate, a woman was selected as chief of the CF committee. The first mandate of Doun Try CF lasted for only two years because of CF was ineffective in controlling the community's fisheries and natural resources. The second committee of Doun Try CF was elected again in

November 2008 but with the same outcome. As a result, the second term of the Doun Try CF was terminated in 2010.

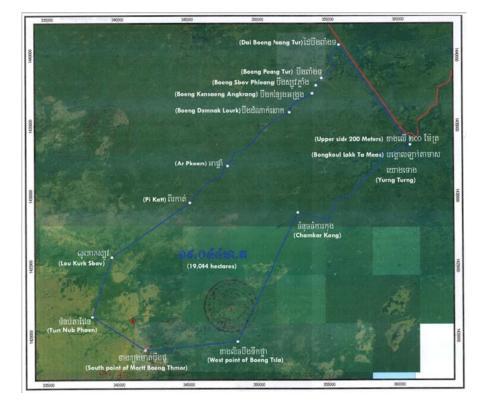


Figure 3.3: Map of Doun Try CF

Source: Doun Try CF, 2008

An NGO called Community Support Improve Development (CSID) supported and facilitated the first two mandates of the CF committee election and organization. However, CSID terminated the project at Doun Try in 2008 due to funding problems and the unsuccessful outcomes of their work. Each election of the CF committee was monitored by the provincial and district fishery officers and the local authorities (Doun Try village chief and the Chhrey CCs). However, after the CF committee was elected, neither the provincial and district fishery officers nor the local authorities have been active in the CF.

Since 2010, another NGO, the Fisheries Action Coalition Team (FACT), has started to work in Doun Try. In June 2011, a new election for a CF committee was held with their support and facilitation through the Tonle Sap Fisher Network project (TFN). On June 11th seven representatives, one of whom is a woman, were elected. To date, the Doun Try CF has 743 members.

3.2.2. Democratic Decentralization: Challenges and Opportunities for the Doun Try CF

3.2.2.1. The Process of Establishing the Doun Try CF

Like the previous CF elections, the election for the third Doun Try CF committee was pioneered by local initiative, with the support of FACT, through the Tonle Sap Fisher Network (TFN) project. In this process, local authorities including the Chhrey Commune Council, the village chief, the commune police, and fishery officers were also invited to monitor the election. However, the reliability of procedures and participation of local people in creating the Doun Try CF is questionable, and villagers noted that some problems had occurred. First, information on the establishment of the CF was not widely announced to villagers. Second, the potential candidates were quietly appointed by the village chief and the village's influential elites. Third, the criteria for choosing an appropriate candidate were not clearly explained to local villagers or voters. In addition, most of the villagers participating in the election, and probably those not participating, were not aware of the importance of having the CF in their community, and, indeed, many had already lost confidence in the CF. Consequently, as in previous CF elections, there was a low participation of villagers in the process, and only 99 villagers (39 of them women) or about 6% of the village voted to select the representatives for their community.

"I think many people in my village did not know about this election. Many people just found out in the morning when we heard the announcement from the pagoda. My house is near here, so I just joined to see this election. I saw that many authorities had come here, so I had better join. For those who live far from the pagoda, they did not want to join though they know about this election. They do not want to spend time because for many years they (the CF committee) have never made any progress."¹¹

With regard to the process of establishing the Doun Try CF, it is clear that it was not created in an open and equitable manner within the community. There is limited democratic decentralization in the Doun Try CF because of the low level of support and participation of local people in the processes of forming the CF in their community. In this regard, local people have not fully used their own rights and decision-making power to become involved in their community development. As the CF emerged from the interest of the (elite) minority, it was hard for it to gain firm support and participation from other local people.

Figure 3.4: Photograph of Doun Try Village in the Dry Season



Note: This is the house and fishing gear of a subsistence fisher in Doun Try

In addition, the impetus for the creation of the CF was to fulfill a legal requirement of the government rather than coming from the initiative of the community itself. The Doun Try CF was created in 2005, the same year as the

¹¹ From the account of an individual woman who participated in the election for the Doun Try CF committee, June 2011

enforcement of the Sub-Decree on Community Fisheries Management. As the community was not aware of the importance of the CF in ensuring the community's interests, the participation of local villagers in establishing a CF became more about fulfilling a mere legal requirement. Whilst there was the involvement of fishery officers in the process, they provided insufficient technical assistance and advice for the CF committee to manage the complicated administrative work in establishing and running the CF committee. Furthermore, support by CSID in Doun Try was not constant and was inadequate to help Doun Try establish a functional CF.

3.2.2.2. Participation by the Local Community in Doun Try

The participation of Doun Try villagers in the activities of the CF is low and problematic, and engagement between the local community and CF is rare. Most of local people considered it pointless for them to join the CF, and there is a wide gap between the work of CF and the activities of local people; local people are not clear what work the CF has done, while the CF does not involve the local people.

Given this situation, local people are discouraged from participating in the process by a variety of factors. First, it was widely perceived by local villagers that the CF is weak and has not accomplished anything for the community, and the common interests of the community have not been addressed or considered. Local villagers stated that the previous CF committee was weak in challenging fishery officers to control and protect the community fishing area, and the CF was accused by the community of being corrupt and of colluding with fishery officers.

Second, local people do not know the importance of their community fisheries and natural resources, and, thus, have not been empowered and mobilized to participate in managing and protecting their community fishing area. Therefore, it is hard to persuade local people to participate in the CF, and they are also discouraged when there is a lack of support from the local authorities for local people and the CF.

"We never know what work the CF has done. After the election, the CF committee is always silent. And we know that the committee cannot cooperate and work with each other. They always have disputes regarding their personal

interests. We think it is nonsense for the community to care about their work. They never make any progress for our community."¹²

"Here in our community, fishery officers dominate over our community fishing area. The CF committee has never dared to challenge them. Most of the time, the committee just follows and is inferior to the fishery officers. If the CF committee does things that way, how can it manage and protect our community fishing area? It is nonsense that the CF committee just stays calm and sees what fishery officers do in our community."¹³

3.2.2.3. Lessons Learned and Changes for Doun Try CF Management

The two previous mandates of Doun Try CF were widely acknowledged to have failed, due to the inability of the CF committee to manage and organize the CF effectively. Seeing the importance of these failures, the new chief of Doun Try CF called for a meeting of the newly elected committee as well as the former committee to identify the weaknesses, issues, and challenges of the previous CF committees. The meeting identified five factors for the CF's failure: 1) The limited knowledge and capacity of the committee; 2) the lack of participation, cooperation and work commitment within the committee; 3) the lack of participation and understanding of local villagers; 4) the dominant power of fishery officers over resources; and 5) the problem of irresponsible fishery officers and a lack of support from fishery officers and local authorities.

After understanding the weaknesses of previous management plans in Doun Try CF, some implications were addressed and agreed by the participants in the meeting:

"We, the new committee, must not follow the mistakes of the previous committee. We have to learn from their weaknesses and make a difference. We must learn to make our team stronger, to manage our team better, and to work

¹² A focus group discussion with Doun Try community, June 2011

¹³ A focus group discussion with Doun Try CF, June 2011

together. We must co-operate each other and be honest in the team; otherwise, we will fail again. If we fail in this third mandate, fisheries and natural resources in our community will be finished for younger generations."¹⁴

In the management reform of Doun Try CF, participation and awareness of the local community were identified as important factors. To address this, it was accepted by the new CF committee that they had to show their commitment to the community to make them trust in the work of the CF. They plan to achieve this by making the local people understand the importance of the community's fisheries and natural resources. Then, they believed, the community would support and participate with the CF.

"The fishing area of our community is so large that the committee (of seven people) could not manage. We really need a great effort from local villagers to help us to manage our fisheries and natural resources. If they do not join with us, we definitely can't do this work. So we must find all ways we could to attract them to participate with us."¹⁵

The efforts of the new CF committee to reunify the community and CF committee in the management, control, and protection of the community fishing area can be seen as a way of strengthening the local democratic decentralization. In this way, the CF committee demonstrates accountability to local people and to is able to use the power gained from local people to further the community's common interests. Evidently, the newly-elected CF committee is stronger and holds more commitment to challenge the fishery officers, and is also prepared to participate more with the local community. However, regarding its future, the outcome of the third mandate of the CF committee cannot be predicted yet.

¹⁴ A discussion in a Doun Try CF meeting on CF Management Plan Reform, June 2011

¹⁵ Mr. Sem Bo, the new chief of Doun Try CF, June 2011

3.2.2.4. The Role of the CF in Protecting Community Areas and Cooperating with Other Stakeholders

CF and Provincial Fishery Administration

Managing and protecting the Doun Try community fishing area has been conducted under a partnership between the CF committee, local people, and the fishery officers. In order for the community fishing area management to achieve a satisfactory result, fishery officers are expected to be responsive and to intervene effectively. However, this expectation has not been met. In fact, local people and the Doun Try CF report that fishery officers have not interacted well with the community and the CF regarding the combat of illegal fishing practices. Instead of assisting the community, fishery officers were charged by local people and the CF of conspiring with fishing offenders, especially wealthy and powerful illegal fishers. However, despite the fact that partnering with fishery officers did not make any progress during the last two mandates, the community's approach to managing and protecting the fishing area has not changed, and there has not been any advocacy work attempted by local villagers and the CF committee to demand more powers and responsibilities over their community's fishing area. Therefore, the CF committee cannot do anything else other than inform and report illegal fishing activities to fishery officers (see Section 3.3.2).

"Fishery officers and concerned authorities come to our village just to take the money from illegal fishers. They ask us to report the illegal fishing activities to them. When we report to them, they rarely enforce the law strictly. Normally, when we report to them, it is like inviting them to take money from the illegal fishers for their own interest. They get along well with illegal fishers. This made the interaction with fishery officers and relevant authorities difficult for our community"¹⁶

¹⁶ Focus group discussion with Doun Try CF and with local community, June 2011

CF and Local Authorities

In contrast to the Prek Trob community, the local authorities, both the Doun Try village chief and the Chhrey commune, have not supported or been involved with the local communities and the CF committee in managing and protecting the community's fishing area. Regular meetings between the local authorities and the CF were absent. No joint projects have been undertaken or other forms of support and coordination with the local authorities had occurred so far. Moreover, the work of Doun Try CF was not taken into account by local authorities. During an interview with the Chhrey commune council, it indicated that there was no hope of concrete development plans and support being made available to Doun Try CF. In this regard, the Doun Try CF and local authorities have not interacted well over the community's fisheries and natural resources management.

"The commune council has no authority to intervene in managing and protecting the community fishing area like in Doun Try. It is the responsibility of fishery officers in this area to cooperate with CFs such as Doun Try CF to manage and protect the community fishing area. We (the commune council) should not interfere as it says clearly in the law. We will cooperate and support if fishery officers require us to help them. However, at almost all times, fishery officers go and operate quietly. As we know today, fishery officers are even station in the Doun Try community fishing area during the open season. We do not know if they are there to combat illegal fishing or not. We hardly know anything about their work."¹⁷

Significantly, the rights and powers of the Doun Try community over their fisheries and natural resources were not strengthened and supported by the local authorities. Despite knowing about the ineffective intervention of the fishery officers, a green light for their intervention was not given. Local authorities only supported the policy and legal framework that a CF was entitled to report and cooperate with fishery officers in combating illegal fishing activities. Therefore, it was strongly indicated by the local authorities that the Doun Try community had no rights or powers to arrest

¹⁷ Group discussion with Chhrey commune council, June 2011

illegal fishers by themselves. In this regard, Doun Try CF has to cooperate with fishery officers in controlling and protecting their community's fishing area. While this is a complex task for the community, in the current circumstance, there is little hope of any effective cooperation and intervention.

To date, local authorities still do not understand the importance and difficulties of the Doun Try CF's work, and the information and concerns of the community are not heard. The newly formed CF in Doun Try does need firm support and cooperation from the local authorities. Taking the lead from the Prek Trob community, advocacy for further rights and powers over their community development and natural resources management should be conducted by the Doun Try CF towards the local authorities. It is important that the new CF committee gets local peoples' support. In this regard, the local authorities should listen to the concerns of the local people. The lack of administrative support from local authorities is a sign of the irresponsibility of local government institutions in strengthening democratic decentralization.

3.2.2.5. The Outcome of Democratic Decentralization

The ineffective management of the Doun Try CF and its inability to control the community's fisheries and natural resources has led to lack of confidence in the CF amongst a great number of Doun Try villagers. The participation and involvement of local people in protecting and managing the community's natural resources is hindered. The knowledge and awareness of local people of basic rights and laws on fisheries remains weak and this limits the level of advocacy in claiming for more rights and powers over the community's fisheries and natural resources. As the result, the local people's rights and powers have been undermined by the district fishery administration, and support from the local authorities has been rare. In effect, the power and rights over the community's resources have both been under the full control of fishery officers.

3.3. Deconcentration: Challenges and Criticism of CFs Enforcement

Throughout this section, the discussion on deconcentration regarding the challenges and opportunities of establishing CFs is considered for both Prek Trob and Doun Try CFs.

3.3.1. Fishery Legal Framework and Policy

The central government passed the Sub-Decree on Community Fisheries Management in 2005 as a legislative framework governing fishery management in Cambodia with the intention of standardizing the best practices of the community fishery management. However, enforcement of CFs has faced some limitations resulting in incomplete deconcentration. Indeed, the attempt by central government to create a legal framework for fisheries has not yet completely created an enabling environment for the implementation of the current fishery management policy.

Local communities and CF committees are entitled to engage in the management and conservation of fisheries resources. However, they are not given the right to arrest illegal fishing activities in their communities' areas. Instead, the CFs and local people can only cooperate, report and provide to the nearest fishing officers about any violations in their area. Often, however, the fishery officers do not halt the illegal fishing. This is partly due to a lack of incentive for the fisheries officers, as well as the collusion of fishery officers with powerful and wealthy illegal fishermen: corruption in the fishery sector is widely known to local authorities, local people, and CF committees. Furthermore, however, given the distances involved, it is time consuming and complicated work for local communities to get full cooperation from fishery officers has become a barrier for local communities to take collective action to protect their fishing area.

"Fishery officers are the responsible authorities in combating illegal fishing practices in TSL. If they are responsive enough, they could prevent almost all fishing offenses in TSL. If the illegal fishing activities are operated in smallscale fishing form, they might be able to hide from fishery officers. However, it is hardly convincing that fishery officers could not see illegal medium-scale and industrial-scale fishing activities around TSL. For example, "bhor" the largest illegal fishing gear, is still operated widely in TSL. Bhor cannot be easily hidden because it is normally about 1-3 kilometers long. Therefore, it cannot be moved quickly. I think that there must be cooperation and collusion between responsible fishery officers and those illegal fishers; otherwise, those fishing offenses could not be operated and escape so easily."¹⁸

A comparison of the two cases, the Prek Trob and Doun Try CFs, reveals that there is a gap in the fishery legal framework and management policy. Both case studies show that partnering with fishery officers in managing and protecting communities' fishing area has not worked in either community. The case of Prek Trob indicates that managing and controlling the community fishing areas should be conducted with the cooperation and partnership of local authorities, CF committees, and local people. For example, it is appropriate for Prek Norin commune police and local authorities to intervene in combating illegal fishing practices in their community because illegal fishing cases can be regarded as a crime. Furthermore, using local authorities that are stationed nearby the CF and local communities is more timely and effective. Moreover, to implement CFs more effectively, further powers over community fishing areas should be given to local communities, CFs and local authorities in controlling and managing their community fishing areas. In contrast, in Doun Try, where local authorities have not supported the CF, it is clear that cooperating and partnering with fishery officers in managing and protecting the community fishing area has not worked.

At the same time, the involvement of the FiA or the MAFF in fishery management is needed, but in a different way for that of the local authorities. By handing the job of combating illegal fishing practices and managing community fishing areas to local authorities and CF committees, the fishery officers could concentrate more on providing technical support and advice; educating and training

¹⁸ From an in-depth interview with an NGO staff member who has worked with CFs in Battambang, July 2011

CFs committees; and following up, monitoring, and evaluating the CF implementation. By employing this process, the local authorities and the FiA officers could have clearer roles regarding fishery management in Cambodia.

3.3.2. Unresponsive Fishery Officers

Managing and protecting the community's fishing area requires a partnership between fishery officers and CF committees, as stated in Articles 13 and 20 of the subdecree. CFs committees are also responsible for reporting and providing information on any fisheries violations in their community fishing area to the nearest fishery officers. Fishery officers are responsible for intervening, stopping and suppressing fisheries offences in the community fishing areas.

Regarding the CF's work in the Prek Trob and Doun Try cases, the most sensitive issue in controlling and managing CFs and community fishing areas is unresponsive fishery officers at both the provincial and district levels. Fishery officers in the Prek Trob or Doun Try community did not let the CF committee or local people stop or arrest any fishing offenders. All CF committees and local people could do was to report illegal fishing to fishery officers. In the beginning, both Doun Try and Prek Trob communities worked hard and cooperated actively in reporting fishing offenses to fishery officers. However, over time it was found that the effective intervention against fishing crimes in each community fishing area was rare. Local people and CF committees explained that every time illegal fishing was reported, the fishermen were tipped off and could escape easily. The poor response from local fisheries staff resulted in a lack of partnership between fishery officers and the local community. This is a sensitive factor affecting the work of the CF in each community.

Furthermore, in both the Prek Trob and Doun Try communities, the fishery officers have provided little technical support and advice in organizing and managing the CFs. Education and training of the CF committees to build their technical capacity for management of communities' fishing areas has not been provided by the government officers. Finally, the implementation by the CF committees has not been supported, followed up, monitored, or evaluated by fishery officers.

Overall, it is revealed that fishery officers have not been adequately responsive and accountable to the CF committees and local communities. Furthermore, it shows that the intervention by fishery officers in stopping and suppressing fishing offences in community fishing areas has not been effective.

Instead, the involvement of fishery officers in managing and protecting community fishing areas appears to have had the effect of capturing power from local communities and CFs rather than partnering and cooperating with them. As indicated in each case study, fishery officers have tried to take over the community fishing area. In this regard, it is hard for local communities to challenge fishery officers to attain a balance of power in controlling and protecting their areas. The success of each community depends only how strong and empowered that community is: Prek Trob is a stronger community and can challenge fishery officers; while Doun Try, a weak community, cannot.

Reflecting this discussion, Cambodia's Prime Minister, Samdech Hun Sen, has himself said "fishery experts in five provinces around TSL (Battambang, Kampong Thom, Kamong Chhang, Pursat and Siem Reap provinces) have been "the **Dominant Powers**" in the Lake, and under their power, they have been the ones who are responsible for the fisheries and natural resources disaster around TSL."¹⁹

3.3.3. Illegal Fishing Practices Undermining Successful CFs

Where there have been gaps in the legislation or implementation of fishery law, destructive and illegal fishing gears and activities have been used and practiced widely and openly around TSL. The most destructive fishing practices include the following:

- The use of long fine-mesh nets called *bhor* that are about 1-2 kilometers in length and trap all kinds of fish passing through the area that is blocked.
 Bhor catch a great number of fish, regardless of the fish size.
- Pumping out small lakes or bodies of water in commercial fishing lot areas in order to capture all the fish at one time.

¹⁹ The Prime Minister's speech on Fisheries' Day on July 01, 2011 at Svay Rieng province

 Use of electrocution, explosives, or poisons by both commercial and small scale fishers; electrocution of fish is more common for subsistence fishermen along the TSL because it is a relatively cheap and convenient method.

The majority of poor subsistence fishers have ended their fishing activities because they could not catch enough fish to support their living; however, some remaining subsistent fishers have tried to adjust their fishing gears to catch up with new illegal fishing gears. At the same time, rich and powerful fishers continue to increase the scale of their illegal fishing gears and fishing activities. It seems apparent that fishers are trying to capture as great a benefit as possible from fishing in a short period of time without considering the future. As noted by local fishers and local authorities, competition in illegal fishing has increased severely between fishers at all levels who have taken advantage of a weak law enforcement environment and weak fishery management system. Whilst this competition in illegal fishing is one reason for decreasing fish stocks in TSL, other reasons include an increased of consumption fish, a growing population of fishers, and environmental change, such as climate and ecological changes in TSL.²⁰ This has brought a severe threat to fish habitats and the sustainability of fishery resources in TSL.

In spite of the accomplishment of the Prek Trob CF in combating illegal fishing activities and managing and protecting the community's fishing area, this has not made the fish stocks in Prek Trob community recover. Subsistence fishers today in Prek Trob cannot even catch enough fish for their daily household consumption. This means that the community's accomplishment in terms of the CF has not, in turn, improved their actual living situation. This is because the successful implementation of a CF in one community alone cannot significantly change the situation in their community unless efforts by other CFs are successful widely around the TSL, because fish stocks are migratory.

It is even more severe for the Doun Try community where illegal fishing activities are widely practiced. Not only can local fishers not catch enough fish to support their daily food, but they also cannot access their own community fishing area which is dominated by illegal fishers cooperating with fishery officers. Some villagers

²⁰ Key remarks by Prime Minister Samdach Hun Sen on Fishery's Day, July 01, 2011

complained that sometimes they could not even use the water in lakes or creeks in their village for agriculture because some lakes or creeks were sold and pumped out to catch all kinds of fish by illegal and powerful fishers.

Therefore, to make the decentralization policy in fishery management through establishing CFs work effectively and bring benefits to CF members, all kinds of illegal fishing practices around TSL must be urgently halted. All fishery domains around TSL such as community fishing areas, open access areas, fishing lot areas, inundated forest areas, and fishery conservation areas must be properly and effectively protected under the decentralization policy in fishery management.

3.4 Comparative Analysis of Democratic Decentralization and Deconcentration in Prek Trob and Doun Try CFs

In this section, the challenges and opportunities of establishing CFs and CFs management are analyzed in connection with deconcentration and democratic decentralization based on the roles and responsibilities of each actor.

Central Government and MAFF

The central government and the MAFF have set policies, legislations, and guidelines governing the fishery management around TSL as a way of standardizing for the best practices of the fishery management policies. However, the policies and guideline set have not fully created an enabling environment for implementation. Having policies and guidelines with insufficient financial support makes creating viable CFs almost impossible.

At the same time, while the CF guidelines have opened up opportunities for local communities and CFs to engage in community fishing area conservation, they are not allowed to stop illegal fishers in their community fishing area. Therefore, it is impossible for local communities and CFs to take collective action to protect their community fishing area when fishery officers are slow to respond.

Fishery Officers

It is apparent that the fishery officers have not fulfilled their roles and responsibilities well. The Sub-decrees on Community Fisheries Management and the Fishery Law have not been enforced fully by fishery officers. In each case study, only a little technical support and advice have been provided to each CF, and after the CF committee was elected fishery officers have not been active in supporting the CF. As mentioned above, fishery officers have also been ineffective in combating illegal fishing activities. Fishery officers have tended to dominate over local communities and CFs rather than rebalancing powers with local communities and CFs in managing and controlling community fishing areas, in cases like Doun Try. This is a big gap in deconcentration, and has affected democratic decentralization severely. It indicates that control and protection of community fishing areas should not be put under the authority of fishery officers alone.

Local Authorities

The Prek Trob community has engaged local authorities differently from Doun Try. Local authorities in Prek Trob are strong and have challenged fishery officers to gain a role over the community fishing area. They have supported local communities and the CF in controlling and protecting the community fishing area. Without fishery officers, as a result, local authorities, CF and local communities have managed and protected their areas effectively and successfully. In contrast, local authorities in Doun Try are too weak to challenge the fishery officers in claiming a role over the community fishing area. They have not supported and cooperated with local communities and CFs in controlling and managing the community fishing area. As a result, Doun Try fishing area has been dominated by illegal fishers and fishery officers. By comparing these two situations, it can be concluded that partnership between CFs, local authorities, and local people in controlling and protecting community fishing areas is the most suitable mechanism.

Community Fisheries Committees

The CF committees in the case studies appear very different. The Prek Trob CF committee is more empowered with a strong sense of community and social capital, and has fulfilled its role and responsibilities well. Moreover, they have been able to advocate for more powers and responsibilities over their community fishing area. It is a real accomplishment of the Prek Trob CF in changing the attitude of local authorities to support and cooperate with them to help control and protect the community fishing area. By doing so, the CF and local community have not been under the strong influence of fishery officers, and they can control their community fishing area independently.

In contrast, the Doun Try CF remains under the influence of fishery officers. The Doun Try CF committee thinks that the CF has no power, and they don't dare to challenge the fishery officers. As a result, Doun Try CF remains weak, and cannot control and protect their community fishing area. It is clear that the degree of success of a CF varies depending on how much a CF is empowered.

Local Communities

The Prek Trob and Doun Try communities are quite different. The Prek Trob community is seen as a strong and unified community. Local people have used their decision-making power rather actively in voting and standing for the CF committee. Moreover, villagers in Prek Trob have strongly participated in the activities of the CF. They have also used their basic rights to challenge for more power and responsibilities over the community fishing area. This reveals that the Prek Trob community has been actively involved in building a strong democratic decentralization in their community.

In contrast, the participation of the Doun Try community in activities of the CF is relatively weak. They are not very active in using their decision-making rights in choosing and standing for the CF committee. Overall, the Doun Try community appears to be a weak and fragile community. A community's strength and unity is a key indicator of the CF's success.

Non-Governmental Organizations and Community-Based Organizations

A sustained NGO or CBO intervention in a community is necessary for a functional CF, but the quality of these projects initiated by those NGOs or CBOs is also critical. In Doun Try, the failure of the CF, in part, could be caused by the lack of support by NGOs or CBOs from the beginning. Despite the presence of CISD during the first two mandates, the project was not well implemented.

For the Prek Trob community, KAWP has worked with them from the very beginning, and has worked constantly since the CF was established in 2002. Importantly, KAWP has worked to empower local people, raising awareness with the locals, and encouraging their participation in managing, controlling, and preserving the communities' fisheries and natural resources. This has all been a critical factor in making the Prek Trob community strong and successful.

Fishing Lots

It is very common that the fishing lots are accused by local communities of violating the law in operating their businesses. Local communities regard the decrease of fish stock to be due to overfishing by fishing lots. However, fishing lots might not be able to illegally fish openly if a nearby CF is empowered and active. In the Prek Trob case, the Prek Trob CF made reports on the activities at Fishing Lot 8 if they saw anything improper. In contrast, in Doun Try where the CF is weak, it was impossible to challenge private sector or fishing lots through reporting illegal activities.

This demonstrates that a good CF can manage and protect fishing areas not only in their community fishing area, but also outside their community. Therefore, the establishment of many more successful CFs around TSL might be a promising governance mechanism to effectively manage fisheries and natural resources around TSL.

3.5 Summary of Findings

From the two case studies, establishing and managing CFs as a way of implementing decentralization in fishery management is a co-management arrangement between fishery officers, CFs, and local communities. The comanagement partnership, however, has not proved an effective fishery management approach, as there has been limited sharing of decision-making powers and responsibilities for the management of resources between local communities, CFs and fishery officers. The interaction of involved actors in the end does not guarantee a balancing of power between the fishery officers and local communities. In fact, the co-management partnership tends to be captured almost completely by fishery officers when given the chance.

Overall, the Prek Trob CF can be considered a successful CF, while Doun Try CF can be considered a failure. The Doun Try CF is unsuccessful because the management and protection of Doun Try community fishing area has been co-opted by the fishery officers from the CF committee and local community. The Prek Trob CF is successful because the CF is empowered to challenge fishery officers and local authorities in order to gain more powers and responsibilities over their community fishing area. In addition, the management and protection of the Prek Trob community fishing area has been implemented under cooperation between local authorities, the CF committee and local people.

CHAPTER IV

CHALLENGES AND OPPORTUNITIES OF KBAL TAOL

The information in this chapter answers the second question of this study: "*In the case of Kbal Taol, why has a community fishery not been established?*" First, an introduction to the Kbal Taol community is presented in Section 4.2. Then, the reasons why a CF has not been established in Kbal Taol are discussed in Section 4.2. In this section, particular attention is paid to understand why the Kbal Taol community failed to claim their right to establish a CF. In Section 4.3, the inappropriate allocation of the Kbal Taol fishing area is analyzed. Kbal Taol's move towards advocacy in the attempt to establish a CF and increase the number of fishing areas is discussed in Section 4.4. Section 4.5 is an analysis of Kbal Taol in relation to the challenges and opportunities of deconcentration and democratic decentralization. Finally, Section 4.6 presents a summary of findings.

4.1 Introduction to the Kbal Taol Community

Kbal Taol is a floating village located in Koh Chivaing commune, Ek Phnom district, Battambang province. Throughout the year, the village is situated on water. During the dry season, the area around the pagoda and on the bank of the Doun Try stream along the village is not flooded. Kbal Taol villagers settle along the end of the Doun Try stream that connects to TSL. The northern part of the village links to Fishing Lot 1 of Battambang province. The southern part links to the border of ishing Lot 1 of Pursat province. In its geographical aspect, Kbal Taol village lies between the two fishing lots. Kbal Taol is isolated from other villages or towns. The only way to reach Kbal Taol village is by boat.

Kbal Taol is registered as one of the five villages in Koh Chiviang commune (Ministry of Interior, 2001). Currently, there are 679 households equaling to 3077 people, including 1502 women, residing in Kbal Taol community (Kbal Taol Community, 2010). Of these households, 230 are Vietnamese. Fishing is the single source of income for Kbal Taol villagers. Almost all of Kbal Taol villagers are subsistence fishers. No agricultural land is available for the Kbal Taol community.

After the reform of fishery management in 2000, a community fishing area and a CF was established in each village in Koh Chivaing commune except in the Kbal Taol community. According to data relating to fishing lots released in 2000, 484 hectares were released from Fishing Lot 1 of Battambang province to the Kbal Taol community (RGC, 2000). The problem is that the allotted fishing area is small and divided between two different locations. One part was located in Koh Chumteav Mao, the western part of Fishing Lot 1 of Battambang. This area is about 20-25 kilometers away from Kbal Taol community, and was only about 150 hectares. Koh Chumteav Mao is far from Kbal Taol village, and not many villagers are familiar with this area. The second part is larger, at about 330 hectares, and is located on the eastern part of the Fishing Lot 1 of Battambang. Although it is near Kbal Taol village, just about 3 kilometers away, since 2000 the area has been commandeered by the owner of the Fishing Lot 1 of Battambang. As a consequence, from 2000 to late 2010, fishers could not fish in their allocated fishing area.

The fishing area released to the villagers existed on paper only, as it was not announced to the Kbal Taol community. Therefore, not many villagers knew of their opportunity. At the same time, fishery officers have not supported or helped to establish a CF in Kbal Taol village. As a result, since the fishery reform, the community has not had a spacious and specific fishing area that local fishers can access. Kbal Taol fishers normally fish in different places not belonging to their community. In general, the residents fish along the Doun Try stream, at the end of the stream where it meets Tonle Sap Lake, and in the public access area. Sometimes, they have to travel use the allocated fishing areas of other villages such as Prek Kra in Pursat Province and Doun Try in Battambang province. Kbal Taol village has requested their own fishing area from the FiA; however, to date the proposal has not been approved.

The disputes between Kbal Taol villagers and the owners of Fishing Lot 1 of Battambang Province and Pursat Province have been ongoing since 2000. According to local villagers and their authorities, the disputes were caused by the expansion fishing lots; borders into the community's waterway, the fishing area and the public access area. The conflict has brought Kbal Taol considerable difficulties for the villagers, not least in blocking access to the community's waterway and preventing access for fishing in the both the allotted and public access areas.



Figure 4.1: Map of Kbal Taol Community

Source: Adopted from www.angkortaxiservice.com

In summary, although the Kbal Taol community was allocated a total of 484 hectares of fishing area from Fishing Lot 1 of Battambang in late 2000 (RGC, 2000), the released fishing area was not large enough or appropriate for the community. Moreover, the villagers were not informed of their allocation. Fishery officers have refused to recognize Kbal Taol's released fishing area nor have they have supported the formation of a CF. The remainder of this chapter focuses mainly on reasons why a CF has not been established in Kbal Taol community, the inappropriate allocation of fishing area for Kbal Taol community, and how the community has failed to claim their right to establish a CF.



Figure 4.2: Photograph of Kbal Taol Village in the Dry Season

Note: The village is settled along the Doun Try stream during the dry season. During the rainy season, the water in this area is approximately 6-8 meters high. Everywhere is flooded. The village is moved upwards to a shallow area to protect their houses from storms.

Figure 3.3: Photograph of Floating Houses in Kbal Taol Village in the Dry Season



Note: Most houses are built on bunches of floating bamboo, and they are stationed on water the whole year. Boat is the only means of transportation from house to house.

4.2 Reasons for Not Establishing a CF for Kbal Taol Community

As mentioned, Kbal Taol community does not have a feasible fishing area yet, despite its official allocation. Moreover, despite being a floating village with a population entirely dependent on fisheries, a CF has not been established. Given that the formation of CFs has been so widespread elsewhere, why has Kbal Taol been an exception? A number of different explanations have been posited.

When asked to explain why specific fishing areas were allocated and CFs were established in all four other villages in Koh Chiviang commune, the Kbal Taol villagers stated:

"Our community should have had a CF like the other four villages in Koh Chiviang commune. We frequently asked the same question to FiA officers, MAFF, and the provincial government, "our community is in the same commune as other villages, so why has our community been treated differently?" We wonder whether those government officers (fishery experts²¹) know about the concerns and requests of our community or not. Our community was given a fishing area whether small or large size it does not matter, why did they not support us to create a CF. From our perspective, we think that those government officers have known that our community has not had a CF, but they have ignored our community's concerns."²²

The Kbal Taol villagers believed that there has been an improper implementation process by lower government officers, namely provincial and district fishery officers in Battambang Province. According to the villagers, the provincial and district fishery officers were not willing to address their concerns and interests. The villagers also stated that if a CF is established in Kbal Taol, it will affect the interests of both fishing lots and some other wealthy and powerful businessmen.

²¹ Here fishery experts refers to all levels of FiA officers including capital, provincial and district fishery administration

²² From a focus group discussion with Kbal Taol villagers, June 2011

Furthermore, local authorities and Kbal Taol villagers believe that the fishery experts "gained something" by not recognizing and establishing a CF in their community:

"Fishery experts keep quiet about what our community has claimed. They do not support us. They simply received our requested document. And then they just kept the documents and never replied. Because of this point, I think that not recognizing the released fishing area and not establishing a CF in our community was secretly planned by the fishery experts."²³

Some NGO staff support the claims of the villagers and local authorities cited above. A NGO employee explained that the lack of effective law enforcement and corruption regarding the implementation of fishery management reform was a main factor behind the failure to establish a CF in Kbal Taol:

"In the case of Kbal Taol, if fishery experts were to follow the policies, regulations and guidelines of fishery management reform, a CF must be established in this community. For me, I think that because of the weak fishery law enforcement and corruption in the implementation of fishery reform, some fishery officers are colluding with fishing lots or illegal fishers to take benefits from local communities."²⁴

A provincial fishery officer claimed that the Kbal Taol community was not entitled to a community fishing area, based on the direction of MAFF in 2000 in allocating and releasing fishing lots. He stated that according to this direction, a floating village like Kbal Taol was not granted a community fishing area because Kbal Taol fishers could access spacious fishing areas in the open access areas nearby, that the open access area is large enough for Kbal Taol fishers and is about 5-6 kilometers away from the village. However, he did not agree that Kbal Taol fishers have not been able to access to the open access area for years because it has been commandeered by Fishing Lot 1 of Battambang and Pursat province since 2000. He

²³ In-depth interview with a Koh Chiviang commune council, June 2011

²⁴ In-depth interview with a local NGO staff, June 2011

also emphasized that in this case, fishery officers had followed this directive in their dealings with the village:

"Kbal Taol community is not entitled to any fishing area or to having a CF because it is a floating village, according to MAFF in its 2000 directive for allocating fishing areas and releasing fishing lots to local communities. Kbal Taol has enough fishing space in public access areas, so it is not necessary to have a CF. Kbal Taol community even gets more benefits than other communities having a CF because they can do middle-scale fishing in the open access areas. A community with a CF is allowed to do only family-scale fishing."²⁵

However, a lower-positioned provincial fishery officer strongly denied the claim mentioned by the provincial fishery officer above. He agreed that 484 hectares of fishing area was released to Kbal Taol. He stated that a CF should have been created and recognized in Kbal Taol as in other floating villages around TSL. He also stated that the problem of Kbal Taol is caused by ineffective law enforcement by the responsible fishery officers; some fishery officers are not responsive enough, and that they collude with wealthy businessmen or fishing lot owners in that area:

"I do not think Kbal Taol is not entitled a CF because it is a floating village. Many floating villages have CFs. For me, I think there must be something wrong with the implementation. I do not say fishery officers colluded with fishing lots or other businessmen. But you can work out why this could happen. At the least, there is a green light from those fishery officers for those wealthy businessmen or fishing lot owners. I think some fishery officers just state this law or that law to make a nice excuse or to protect their interests."²⁶

The claim that Kbal Taol community is not entitled to a CF or is not accurate. In fact, a fishing area of 484 hectares was allocated to Kbal Taol community in 2000

²⁵ In-depth interview with a provincial fishery officer in Battambang province, June 2011

²⁶ In-depth interview with a provincial fishery officer in Battambang province, June 2011

(Figure 4.4), and based on the terms of the sub-decree, it means that Kbal Taol was already entitled to a community fishing area. However, why official fishery experts have not recognized that community fishing area and established a CF for Kbal Taol community is somewhat unclear.

The primary reason why a CF has not been established in Kbal Taol is that the 2000 fishing reform has not been implemented by the responsible fishery officers at the provincial and district level, in this researcher's opinion. In contrast, due to appropriate implementation by provincial and district fishery officers in Battambang province, many floating villages in the same province or commune have CFs, whereas Kbal Taol does not. For example, each village in Koh Chiviang commune, namely Kampong Brohuk, Anlung Ta Uor, Thvang, and Prek Toal, has a CF (Figure 4.5). In Pursat province, a floating village near Kbal Taol called Prek Kra also has a CF. Therefore Kbal Taol has been treated differently from other villages sharing similar geographical aspects.

Previous charges by Kbal Taol villagers that fishery officers have colluded and cooperated with fishing lot owners or wealthy and powerful businessmen in not establishing a CF for their community need also to be critically considered. The claim by Kbal Taol villagers may be substantiated because provincial and district fishery officers did not recognize the released fishing area for Kbal Taol community. Instead, they actively claimed it was part of Fishing Lot 1 of Battambang province. Therefore, Kbal Taol community area was under control of the fishing lot from 2000 to early 2011 (see Section 4.4). This made it impossible for the Kbal Taol community to establish the CF, in fact, they could not even enter the officially released area.

Another reason why a CF has not been established in Kbal Taol is location. Specifically, Kbal Taol is isolated from Koh Chiviang commune and Aek Phnom District compared with the other four villages in the same commune. This has made it difficult to enforce fishery reform policy and to deliver administrative services to the Kbal Taol community. The remote location makes it easier for irresponsible officers, namely fishery officers, to violate fishery laws and policies leading to corruption and collusion with fishing lot owners.

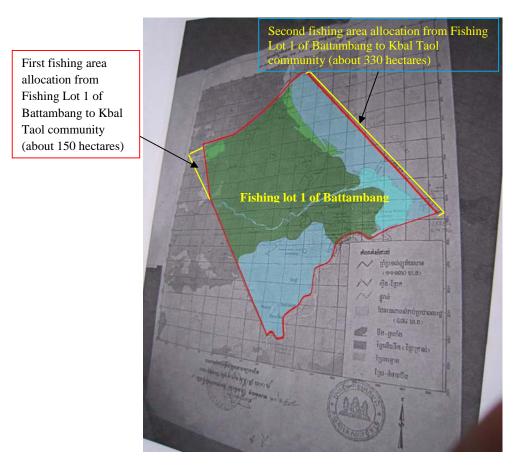


Figure 4.4: Released Fishing Area for Kbal Taol Community in 2000

Source: Adapted from MAFF in 2000

The failure of Kbal Taol to establish a CF results partly from the limited knowledge of the villagers in claiming their rights. Most of the Kbal Taol villagers are poor subsistence fishers. Almost all of them have concentrated only on fishing activities, and have not finished primary education (grade 1-grade 6) (Kbal Taol Community, 2010). Moreover, as stated by villagers and a commune council in Koh Chiviang commune, information has been restricted to Kbal Taol villagers in terms of distance and signal accessibility. At the same time, as stated by local villagers, they are panicked by fishery officers from time to time. It is, thus, easier for the community to be deceived by irresponsible officers. Arising from this issue, the Kbal Taol community has been ineffective in claiming their right to establish a CF in their community. In a late 2001 protest for more fishing areas and the establishment of a CF, Kbal Taol villagers burned down the floating station of local fishery officers. Five

fishers were arrested and fined. This sort of protest by Kbal Taol fishers was perhaps a sign of frustration in pursuit of establishing a CF in 2001 and may have been ineffective. It probably worsened relations with fishery officials. Since this incident, it has become even more difficult to convince fishery officers to support Kbal Taol community in establishing a CF.

While the community has faced a lack of support, the question still remains as to why it could not unify and establish a CF without external help. Initially, the government-released fishing area (see section 4.1) was announced to the Kbaol Taol community and it was rejected by the fishery officers. A few months later, Kbal Taol villagers knew that 484 hectares of fishing area was released to their community through the commune councils. However, the released fishing area for their community was unsuitable so the community did not agree to accept that fishing area. Immediately, they requested that the government or fishery officers provide a spacious and feasible fishing area to their community. However, even after the area was released, Kbal Taol fishers did not reach an agreement in their community to establish a CF. The reason for this is that the community's released fishing area was under the control of Fishing Lot 1 of Battambang province, so it was impossible for Kbal Taol community to take collective action to establish a CF themselves. This situation contrasts with circumstances surrounding the Prek Trob community and other communities where once the community fishing area was recognized by fishery officers, it was fully handed over to the community to establish a CF. The essential next step for Prek Trob and other communities was to create community unity and direction, then create a CF themselves.

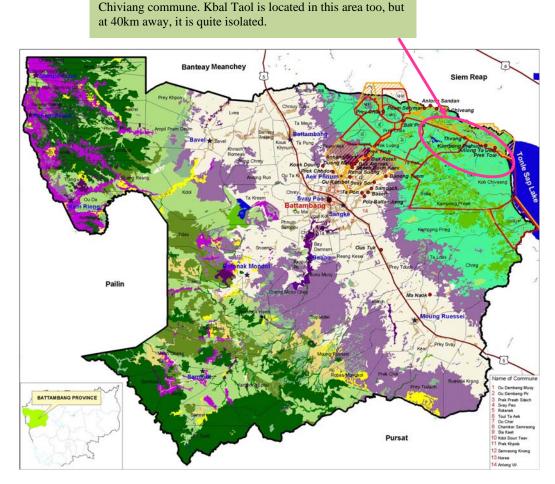
Another reason, it is seen that the Kbal Taol communities did not get any support or coordination from NGOs helping the community to claim their right to establishing the CF between 2000 and 2009. Without the specialist knowledge of NGOs, it would be more difficult for Kbal Taol community to succeed in their advocacy work. The absence of support and coordination from NGOs would make it more difficult for a community with limited knowledge like Kbal Taol to challenge the fishery officers. Between 2000 and 2005, according to the Sub-degree on Community Fisheries Management (2005), establishing a CF required the support and

cooperation of the local authorities. Without this interaction with local authorities, the formation of a CF would be impossible.

There are two reasons why Kbal Taol did not gain the support and cooperation of their local authorities: First, the distance between Kbal Taol to Koh Chiviang commune is about 40 kilometers, i.e the community faces relative connectivity problems. There is a commune councilor living in the Kbal Taol, however, he cannot authorize anything himself. He usually travels to the commune about three or four times unless he is called for a special meeting. For example, every approval needs original signature from the commune chief. This shows that there is a lack of connection and interaction between the Kbal Taol community and local authorities.

Figure 4.5: Map of Community Fisheries in Battambang Province

There are four CFs in four floating villages in the Koh



Source: Adopted from Provincial Fishery Administration in Battambang, 2010

Second, coupled with the lack of NGO support is the allegation that some local authorities are colluding and cooperating with fishing lot owners. For example, some local authorities are given small lakes or creeks by fishing lot owners. Some local authorities have bought or sub-contracted some parts of the lot areas from the fishing lots. As stated by a commune council, there are very few local authorities that are not receiving benefits from surrounding fishing lot owners. The establishment of a CF in Kbal Taol community would definitely affect the catches of Fishing Lot 1 of Battambang Province. In this regard, it can be seen that any requests by the Kbal Taol community affecting the interests of the fishing lots will also affect the interests of some local authorities. Therefore, this has made a conflict of interest that has made it difficult for Kbal Taol community to get support and cooperation from their local authorities for establishing the CC.

4.3 Inappropriate Allocation of Fishing Area for Kbal Taol Community

As mentioned previously, 484 hectares of fishing area was released to Kbal Taol community through the fishery management reform of 2000. The released fishing area for Kbal Taol community was allocated in two different locations (see section 4.1). The 484 hectares allotted is not spacious enough for a community with over 3,000 fishers. In any case, the community did not take control of their allocation, which raises questions about the suitability of the original release. This section presents a discussion of why the allocation of the fishing area was not appropriate for Kbal Taol community.

According to Articles 22 and 23 of the Sub-Decree on Community Fisheries Management (2005), the MAFF is the institution responsible for issuing proclamations recognizing, rejecting, or nullifying fishing areas or CFs. The provincial and district fishery administrations are the lower institutions responsible for examining and providing advice to the MAFF to make decisions on requests for allocations, and provision of community fishing areas and CFs in the released areas.

As stated by villagers in Kbal Taol and a commune council in Koh Chiviang commune, the Kbal Taol community did not know about and was not involved with the provincial and district fishery officers in allocating the community fishing area for their community. During the group discussion with the villagers and an in-depth interview with the commune council, they all stated that the released area for their community was decided without asking them. The commune council only knew from the announcement by the RGC in 2000 after the community area was already allocated.

"Before the announcement of the released fishing area for our community, we did not know about it. Simple fishers like us, how can we know? The government decided and allocated that area themselves. Later we knew that our community was released more than four hundred hectares of fishing areas through the village chief and commune council."²⁷

"The government did not ask villagers or commune councils first before allocating the area for our community. The government decided quietly. Even though I am a commune councilor, I did not know about the allocation. I only knew when the information of releasing fishing lots to local communities was announced by the government."²⁸

Some NGO staff from FACT agreed with the claim by Kbal Taol villagers and the commune council on this point. They stated that sufficient research and dialogue between responsible fishery officers and local people before the allocation were not conducted. As a result, some areas released were not suitable for the community. The NGO staff also suggested that the fishery officers involved should have studied the needs and characteristic of each community before allocating and releasing any fishing area for a community.

"The decision of the government to release the fishing lots for local communities was done in a hurry. Fishery officers did not spend enough time to study and consult in each community before advising and proposing to the

²⁷ A focus group discussion with Kbal Taol villagers, June 2011

²⁸ An in-depth interview with a commune council in Koh Chiviang commune, June 2011

government to release any area for a community. As result, many released areas did not match with the size and needs of the communities."²⁹

However, the fishery officers strongly maintain that the government and the FiA studied the situation carefully before allocating and releasing fishing lots to local communities. However, the head of the FiA in Battambang province stated the government and FiA could not study all communities because of time restraints and financial problems.

"Before the government decided on releasing and allocating fishing lot areas to local communities, the government and Department of Fisheries (DoF) had already studied the issue critically. I trust that DoF also provided information, reasonable advice and proposals to the government before the government approved. We (the government and DoF) had to compare and balance carefully between the areas to be released and the number of households (resource users). In Kbal Taol, we also studied. We knew that it is a floating village and that the Kbal Taol community can access the open access area. Therefore, it was not necessary to allocate a fishing area for Kbal Taol community."³⁰

However, the claim by the head of FiA in Battamang conflicts with the record of fishing lots released to local communities by the RGC in 2000. The data shows that 484 hectares was released to Kbal Taol community. This mismatch indicates a discrepancy between the decision of the government and its implementation by provincial and district fishery officers.

Despite its obvious importance, it is clear that unsuitable fishing areas were allocated in many cases. For example, communities with smaller population often get larger fishing areas than communities with larger populations. In some cases, two communities with similar populations get different sizes of fishing areas. For instance, the Doun Try community, with 325 families, was given 19,044 hectares of fishing

²⁹ An in-depth interview with a NGOs staff working with CFs in Tonle Sap Lake, July 2011

³⁰ In-depth interview with the head of the provincial FiA in Battambang province, June 2011

area, while Kbal Taol, with 679 families, was given only 484 hectares of fishing area. Prek Trob, having a similar population to Doun Try, was given a fishing area ten times smaller than that of Doun Try. Inconsistencies like these would support the claims by Kbal Taol community, Koh Chiviang CC, and some NGO staff about the inappropriate allocation of the fishing area.

4.4 Kbal Taol's Advocacy Efforts to Claim a Community Fishing Area and Establish a CF

Fishery officers in Battambang province and some local authorities claim that the Kbal Taol villagers have an abundant fishing area, particularly the open access area. The truth, however, is that the villagers lack an adequate supply because they have not been able to access to the fishing space in the open access area. The main cause of this problem, according to local villagers, is that the owners of Fishing Lot 1 of Battambang and Pursat Provinces have expanded the fishing lot borders into the public access area. Moreover, ineffective enforcement of fishery laws by fishery officers has enabled the fishing lot owners to operate their industrial fishing equipment in breach of the fishing lot's burden book, recording and restricting fish exploitation in the fishing lot, and fishery laws. The villagers are aware that this lack of access has brought them economic and social difficulties, and they have worked actively and continuously using any means they could to manage the situation:

"Fishing Lot 1 of Pursat has used and controlled the open access area for over a decade. Local fishers have not been able to use and access the open area for years. Our community fishing area which was released by the government had been controlled by the Fishing Lot 1 of Battambang from 2000 to 2010. The fishery officers stationed in our community should have known about this and intervened."³¹

³¹ An in-depth interview with a commune council in Koh Chiviang commune, June 2011

"Not only can we not fish in the public area (open access area), but also most of the time we cannot even travel across that public area. I was stopped and fined two years ago because I traveled through the public access area. I know many villagers here who have also faced this difficulty."³²

Immediately after the reform in fishery management around the lake in 2000, a small fishing area was technically released to Kbal Taol. However, as it was not announced to or known by the locals, these villagers saw that their community was treated differently. For example, the other four villages in Koh Chiviang commune were given a spacious and suitable fishing area. Moreover, a CF was immediately established in each community. Suddenly, a protest started in Kbal Taol. Villagers, both men and women, called for equal rights to fisheries and natural resources for their community. The protest was organized locally and strongly supported by local people, mainly villagers of Cambodian ethnicity. This participation by local villagers created a stronger sense of community.

Before 2009, the advocacy work of Kbal Taol community was formed without the support or facilitation of any NGOs. The local fishers sent district and provincial authorities several letters and requests, signed by thumb stamp, to show their community's interests and concerns. The community did not receive any response from fishery officers for a year. In early 2001, hundreds of Kbal Taol fishers, both men and women, formed a demonstration to get their voices heard. These peaceful efforts did not result in any response from local authorities:

"In the first year or second year after the community fishing area was released, local villagers and I made many requests to all concerned government authorities including the district governor, district fishery officers, the provincial governor, and provincial fishery officers for a feasible and spacious fishing area for our community. We also requested all concerned government officers to intervene with the Fishing Lot 1 of Battambang

³² An in-depth interview with a fisher in Kbal Taol community, June 2011

province to return the community fishing area. However, we did not get any feedback or results."³³

The one-year protest did not change the situation in Kbal Taol community. The community still did not have enough fishing area, while the Fishing Lot 1 of Battambang and Pursat provinces still occupied the fishing areas in the open access areas and the community's area. In late 2001, after no solution, violence occurred. Hundreds of angry fishers, both men and women, burned down the floating station of local fishery officers. As a result, five Kbal Taol fishermen were arrested and charged with destroying public and private properties. To release those five villagers, a new floating station was rebuilt that cost about 5,000 US dollars for each arrested villager. Though villagers in Kbal Taol raised some money to help to pay the penalty, the convicted fishermen bore most of the burden themselves.

After the violent protest and the court case in 2001, the participation of Kbal Taol villagers in advocacy initiatives became weaker for a while. Because they feared for their personal security, many local fishers remained silent, and some activists escaped to other villages. Because of the decreased power of the community, the fishing lots became stronger and kept expanding. Meanwhile, the fishers lived in a situation in which the community's resources were dominated by the private sector fishing lot owners. Disputes between Kbal Taol community and fishing lot owners continued from time to time:

"I was one of the fishermen arrested in 2001. Only two of us still live in Kbal Taol. The other three fishermen escaped to other villages. I felt so scared even though I was released. After we were arrested, our villagers became quiet. No one dared to continue protesting because they were afraid of being arrested and fined like us."³⁴

³³ An in-depth interview with a commune council in Koh Chiviang commune, June 2011

 $^{^{34}}$ An in-depth interview with a fisherman in Kbal Taol who was arrested during the protest in 2001, June 2011

The participation of Kbal Taol fishers in protesting for their rights resumed three or four years later. Advocacy in claiming the community's fishing area and establishing a CF has gradually moved forward since then. However, the protests have become more peaceful. After Fisheries Action Coalition Team (FACT) started its project in Kbal Taol in 2009, the idea of forming and networking fishers in Kbal Taol with other communities began. First, FACT helped to form a group of fishery representatives consisting of 20 fishers. The fisher representatives were selected through election under the support and coordination from FACT. Since 2009, with the cooperation, support and facilitation of FACT, fisher representatives have become community activists working with local authorities and fishery officers to find solutions for the village. Moreover, FACT has helped the fisher representatives in Kbal Taol to build networks with other communities' fisher activists. This has strengthened the voice of the Kbal Taol community.

Thanks to these efforts, some progress has been made for the community. First, between 2009 and 2010, a number of negotiations between fisher representatives and the owner of Fishing Lot 1 of Battambang province have been held in order to find a solution. Dialogues between the community, local authorities, and concerned fishery officers have occasionally occurred. For example, in January 2011, the fishing lot border dispute with the owner of Fishing Lot 1 of Battambang province was resolved with an appropriate solution. The boundary of the fishing was inspected and clearly marked by local authorities and fishery officers. Lakes, streams, and creeks which had been sold between 2008 and 2010 were placed under the control of fishers without interference from any powerful people or businessmen. The fishing area controlled since 2000 by Fishing Lot 1 of Battambang province was given to Kbal Taol community under an agreement between fishers representatives and the lot owner including an approval by the provincial FiA. Since January 2011, Kbal Taol fishers have been able to do household fishing in the released area as normal.

This success was result of the effort of the fishers of Kbal Taol village to organize collectively and peacefully. Their non-violent and active work included written requests to local authorities and fishery officers calling for intervention to solve the dispute through local, provincial and national meetings. In a NGO staff from FACT, the Kbal Taol community has also used media such as radio and newspapers as another way to send their message and concerns to government agencies such as the MAFF, FiA, and provincial and district governments. These successes suggest a strengthening sense of community among the Kbal Taol fishers. The achievements also highlight the important involvement of NGOs, namely FACT, which provided support to form effective advocacy processes in Kbal Taol.

However, despite the return of the fishing area in 2011, at only of 330 hectares, it is still not spacious enough for the community. With support and facilitation from FACT, however, the fisher representatives will continue working peacefully to request the local authorities and fishery officers to support them in their claims for more fishing areas and establishing a CF in their community:

"The fishing area that was just returned is not enough for the three thousand fishers in our communities. However, it has become a specific place that our community can access at any time. We will try to request the provincial and district FiA to advise the government to give us more fishing area. Particularly, we will request the government to release an area of about 2,000 hectares from Fishing Lot 1 of Battambang to our community. That area is located near our community and is connected to the current fishing area of our community."³⁵

In addition, advocacy work to solve the fishing lot border dispute with the owner of Fishing Lot 1 of Pursat Province has been in progress. This is a sensitive issue for the Kbal Taol community as in March 2011, the waterway for the village was commandeered by the owner of the fishing in Pursat Province. The Kbal Taol fishers also accuse the owner of occupying the open access areas and the community's fishing area with the cooperation and collusion of some local authorities, fishery officers, and members of Prek Kra CF committee.³⁶ This has

³⁵ This quote was cited from the talk of a fisher representative who shared her concerns about the community fishing area, June 2011

³⁶ Prek Kra is a community fishery located in Metek commune, Bakan district, Pursat province. It is a floating community nearby Kbal Taol community. Prek Kra community was given 4162 hectares of fishing area in 2000 by the government. The fishing area in this community is abundant. However, due to the collusion between some committee of Prek Kra CF and the owner of Pursat 1 Fishing Lot, Kbal Taol and Prek Kra fishers could not do any fishing in this area.

further limited fishing opportunities for the villagers as well as causing accessibility and travel issues.

To date, a proper solution has not been achieved on all fronts. Kbal Taol villagers and fisher representatives hope that their request will be successfully supported and considered by local authorities and fishery officers at all levels. Currently, the fisher representatives, as well as local fishers themselves, appear to be stronger and more active than ever. Moreover, the activities of a Community-Based Organization (CBO) initiated by FACT and funded by Forum Syd has contributed largely to the community's advocacy work. Significantly, FACT continues working proactively in with the community. These involvements have peacefully strengthened the advocacy efforts of Kbal Taol and brought some promising results, though much remains to be accomplished.



Figure 4.6: Focus group discussion with Kbal Taol Fishers in June 2011

Note: The focus group discussion was conducted at the pagoda. Two women joined this group discussion. They were active in sharing concerns and ideas for their community.

4.5 Challenges and Opportunities of Deconcentration and Decentralization in Kbal Taol

The struggle for the right to establish a CF and get more fishing space for Kbal Taol was a long and bumpy path before producing the remarkable results of early 2011. Kbal Taol now has a stronger sense of community and social capital linkages. However, as a strong community with limited knowledge, insufficient support and cooperation from local authorities, and the absence of intervention from NGOs still makes it virtually impossible for them to successfully claim all their rights. The irresponsible and unresponsive work of fishery officers remains, and has added to the problems faced by the local people. Moreover, due to the weakness in law enforcement by fishery officers, fishing lot owners have been given more powers that are barriers to the Kbal Taol community's advocacy work.

The advocacy activities in Kbal Taol have changed positively in recent years and have begun to yield results for the community. With the support and facilitation of FACT, the advocacy work by Kbal Taol community has been conducted in a peaceful and effective way. Encouraged by this, the community has strengthened and has begun to see a trickle-down effect of achievements in other areas. For example, it has changed the working behaviors of some of the local authorities. The concerns and voices of Kbal Taol community are now heard by local authorities and concerned officers. Dialogues between local community and local authorities that never happened in the past have now started. For example, FACT has formed several meetings between Kbal Taol representatives and local authorities. Second, through the peaceful advocacy of Kbal Taol community, there has been a softening of attitudes on both sides in the dispute over Fishing Lot 1 of Battambang Province. The culmination of this was the resolution of the dispute in 2011 and the return of the 330 hectares area. Following the return of the area denied to them between 2000 and 2010, the community has been able to carry out household fishing in this area as normal since.

However, there are some issues that have not been resolved. First, the lack of sufficient fishing area in Kbal Taol remains a challenge. The newly released fishing area from Fishing lot 1 of Battambang province is not spacious enough for thousands of fishers. For years, Kbal Taol fishermen have not been able to do household fishing in the open access area because this area has been invaded by the Fishing Lot 1 of Pursat Province.

Second, the incursion into Kbal Taol's waterway by Fishing Lot 1 of Pursat province in March 2011 has not been solved yet. This has added more difficulties in travelling to and from the village. The increased isolation of the village has meant that all basic goods such as rice, ingredients, vegetables, gasoline and so on, have become more expensive. To make matters worse, the fish the villagers catch are sold for cheaper prices.

Third, due to weaknesses in fishery law enforcement by fishery officers, illegal fishing activities are widely practiced in fishing lot areas, community fishing areas, and open access areas. Illegal fishing is usually carried out by wealthy and powerful fishers, normally from Vietnam. Fishery officers are generally known to have cooperated with illegal fishing offenders.

Finally due to illegal fishing activities around Kbal Taol, the fish stock available has decreased at an alarming rate. This has made the task of supporting a household through subsistence fishing a hard job. As fishing is currently the only source of income, there appears to be no sign of a resolution to this economic and social challenge.

4.6 Summary of Findings

A CF has not yet been established yet in the floating village of Kbal Taol, and one major cause is the unresponsive and irresponsible work of fishery officers which has prevented not only the establishment a CF, but also the lack of recognition of the rightful community fishing area. A second major cause stems from the community themselves: 1) limited knowledge by the Kbal Taol villagers themselves, 2) the use of violence as a means of protest to establish a CF and to claim more fishing area, 3) the lack of support and cooperation from local authorities, and 4) absence of intervention from NGOs.

The released fishing area for Kbal Taol by the government in 2000 was not suitable and spacious enough for the characteristics and needs of the community. The absence of dialogue with the community and sufficient preliminary studies by fishery officers and the government is a root cause for not allocating an appropriate fishing area.

To date, Kbal Taol has never been provided with enough fishing area for 3,000 fishers. Over a decade, the community has not been able to access to the open access area as it has been invaded and controlled by the Fishing Lot 1 of Pursat Province. Moreover, the waterway also belonging to Kbal Taol has also been invaded by the Fishing Lot 1 of Pursat province since March 2011. This problem has not yet been solved.

Illegal fishing activities remain an issue in the area around Kbal Taol community. Fishery officers are generally accused by Kbal Taol villagers of cooperating with illegal fishing offenders. The main cause of this is weaknesses in the enforcement of fishery law and policies by fishery officers. Illegal fishing activities continue to be widely practiced in fishing lot areas, community fishing areas, and open access areas. Catching enough fish for their living, more and more local Kbal Taol villagers including local authorities have involved in illegal fishing activities regardless to scales because they have no other sources of income.

CHAPTER V

CHANGES IN HUMAN SECURITY OF FISHERS IN PREK TROB, DOUN TRY, AND KBAL TAOL COMMUNITIES

The information in this chapter answers the fourth question of this study: "In the Prek Trob, Doun Try and Kbal Taol communities, how has economic and food security changed as a result of the government's decentralization policy on fishery management since 2001?" To answer this question, the effects and processes of decentralization as well as the changes in food and economic security in each community are discussed in Section 5.1, 5.2 and 5.3. Decentralization and the trend of overall human security are discussed in Section 5.4. The last section, the summary of this chapter's findings, is included in Section 5.5.

5.1 Prek Trob Community

5.1.1 Decentralization and Changes in Community Economic Security

Decentralization and Changes in Level and Sources of Income

Prek Trob is only 30 kilometers away from Battambang town; however, in reality, it is isolated from any urban area in terms of economic and physical infrastructure. Getting to Prek Trob by road is still inconvenient at any time, and it is even more difficult to get to the village during the rainy season. Due to this current barrier in transportation, it is difficult for the residents of Prek Trob to engage in any external market, and therefore, livelihood alternatives are somewhat limited.

As recounted by the village chief and villagers, the main source of income of for Prek Trob is rice. They can grow rice twice a year, but the outcome is unpredictable because of inadequate irrigation. Although most of the farmers in Prek Trob own a small plot of land, on average about 1 hectare to a household, sometimes poor farming conditions do not ensure any regular income for Prek Trob. Some years they get a negligible or zero yield. Thus, Prek Trob villagers are unable to depend only on farming. Five years ago, household fishing was an important source of income for the majority of Prek Trob villagers, according to local villagers and authorities. Fisheries were abundant, and fishing used to provide not only food for daily household consumption, but was also a source of additional income to support other daily household expenditures. Prek Trob villagers could keep their harvested rice for household needs or save the income from selling rice. Also, according to the villagers, livelihood was not such a concern for them as they could depend on the community's fishery resources to provide extra income. It appears that economic security was more assured in the village five years ago: farming and fishing were ways of life that went hand-in-hand for the Prek Trob community.

Things have changed dramatically in Prek Trob in terms of economic security after the decline of fishery resources in the village over the last five years. Although Prek Trob has protected their community fishing area well, their fish stock has not recovered (see Section 3.3.3). As raised by Prek Trob villagers, one reason is seen as the cause of the decline of fish stock in Prek Trob was from the inability to control and protect the community fishing areas in other nearby communities. This shows that the failure of implementing decentralization in fishery management has had a direct impact on the fishers' economic security.

In recent years, Prek Trob villagers could hardly catch enough fish for even daily consumption. Today, income from household fishing in has become undependable, and more and more Prek Trob fishers have quit or reduced their fishing activities. This means that Prek Trob villagers do not earn or depend on income from fishing anymore. As noticed in the village, they now buy fish from the market for daily household consumption. Today, farming has become almost the sole source of income for Prek Trob. Because there is no income from fishing, Prek Trob villagers have to sell their rice to cover the basic family expenses. This change marks a complete contrast between the present and the village's situation in the past:

> "Fish in our village has decreased severely. Of course, it is different from the past; there were a lot of fish in our village. And we could catch a lot of fish five or six years ago. Today, we catch fewer fish. Many people in our village rarely do fishing, and many of them have quit fishing. Before we had

income from fishing to help us, but now we do not. Today, we have only farming. Land for paddy rice is so small in our village, so many of villagers cannot depend on farming. Many of villagers in our village are poor and live in debt. Some villagers have to sell all harvested rice to pay debts. Some villagers even fled from the village because they could not pay debts back. The lives of our villagers have changed a lot.³⁷

Seeing these challenges in their community, the Prek Trob CF committee cooperated with local villagers to build a 150-meter irrigation system in the village in 2009. This irrigation could improve the irrigation methods of about 40 households in the village. In early 2011, a small road connecting to the village paddy field was built under the cooperation of the CF committee and local villagers. Most of the fund was collected from local villagers, and some funds were contributed by the Prek Norin commune. Having an irrigation system and a new road connecting to their paddy field has increased economic opportunities for local villagers. For example, more people can cultivate their rice twice a year and the rice cultivation in the village has become more reliable.

Decentralization and Changes in Job Reliability and Stability

As mentioned previously, the living situation in the village has changed remarkably after the decline of fish stock in the village. All interviewed villagers, local authorities, and the CF committee and CBO stated that their income and employment had become unreliable and unstable. First, after the large decline of fish stock in their village, income from subsistence fishing is not dependable anymore. Second, as subsistence fishing is undependable, farming alone cannot make a reliable income. Overall, it is seen that the reliability and stability of employment and income of Prek Trob villagers has become worse because of the decline of fish stock in their village. Because of the negative changes in job and income stability and reliability in the village, local people look for alternative means to make cash income. Villagers and local authorities have noted that recently, many villagers migrate to work as laborers or workers in Thailand. Most of them enter and work in Thailand illegally.

³⁷ An in-depth interview with Prek Trob village chief, July 2011

More often than before, Cambodian migrant workers in Thailand have been reported by NGOs as victims of trafficking and abuse by Thai employers (IOM, 2006; Deelen and Vasuprasat, 2010; Chan, 2009. The livelihood situation has become increasingly risky:

> "When villagers here do not do fishing anymore, they do not have much work here. They cannot depend on only farming because they have little land. Many villagers have migrated to Thailand to work there. It is hard for them. They do not want to go there, but they have no better choices here. When they could have income from fishing, they just work in one place in the village. As you know, working in other countries like Thailand is not easy like our country or our village. For example, some villagers can come back and visit the village. Some other villagers never come back, and we never know what happened to them.³⁸

The Prek Trob CF contributes to economic security in several ways. First, by ensuring equal access to the community fishing area, the CF becomes an important factor in helping local villagers create more economic opportunities (see Section 3.1.2.3). To overcome the social and economic challenges in the village, the Prek Trob CF committee has cooperated with local authorities with KAWP support to educate and provide ideas to local people for village job creation. Moreover, the Prek Trob CF and KAWP have educated people on the challenges and opportunities of migrant workers in Thailand. At the same time, the Prek Trob CF and KAWP has been actively involved in providing advice to villages on the safety of migrant workers in Thailand. In Prek Trob today, through the work of the CF and KAWP, a network of the local villagers, local authorities, and the CF committee has been built. The Prek Trob CF committee has also actively worked in reporting and updating the information on villagers who migrate to work in Thailand to local authorities. By doing this, local authorities can know and respond better to local villagers' queries and collect data on the movement of local people.

³⁸ A group discussion with the CF and CBO committee in Prek Trob village, July 2011

Decentralization and Income Protection and Support

Though local authorities have focused more attention has been on communitybased development in Prek Trob, income protection and support by local authorities are not evident. However, through intervention by KAWP, Prek Trob has seen some visible improvement in strengthening the income of some of the villagers.

The CBO was a project supported by KAWP in 2009. Through a CBO, also known as a "village savings group", CBO members can access some of the community savings when needed. Since the establishment of the CBO in February 2009, there have been 43 members involved in the CBO's activities. One of the benefits is that a member is entitled to borrow funds saved by the CBO members at a lower interest rate than commercially available and with less complicated conditions. The interest rate paid to the CBO is 3% per month: that is lower than private lenders at about 10-15% or micro-finance institutions at about 3-5%. Members of the CBO can borrow funds to support farming expenses or expanding a family business – all of which can lead to increased job stability. Moreover, as mentioned by the CBO committee, most of the CBO members have not migrated to work in Thailand:

"The members of the CBO have saved funds and lent all saving funds to other members as proposed or needed. It means that a CBO can unify the force of local people to help each other. Everyone in the CBO gets benefits from one another. Every month we meet each other and discuss to find a solution to help each other. As I notice, most of the CBO members have not migrated to Thailand because they have used the saving funds to expand their family business."³⁹

"Being a member of CBO, I can borrow some savings fund to create a small business in my family. First, I borrow some money just enough for raising a pig. Then I had to pay back in an affordable amount every month. I also can ask to borrow some more money if I need it for investing in my family. Every month, we have a meeting and we share ideas and make plans to develop our family. So it means this work has helped me to think only about creating more

³⁹ A remark addressed by the chief of CBO in Prek Trob during the focus group discussion, July 2011

work in our village. For me, I think that after I joined the CBO, I stopped thinking of going to Thailand."⁴⁰

The Prek Trob CF has also been involved with the work of the CBO. For example, the Prek Trob CF committee has played an important role in unifying local people to support and participate in CBO activities. The CBO is a project that has been implemented with the cooperation and partnership of the CBO committee and Prek Trob CF committee. This appears to be more evidence of the Prek Trob CF committee strengthening the economic security of the community.

5.1.2 Decentralization and Changes in Community Food Security

Five years ago, food security in Prek Trob sat on a strong foundation of two complementary pillars. First, about 90% of Prek Trob villagers own their land, and they engage in agriculture activities. On average, those villagers own about 1 hectare of paddy field per family, and they are able to cultivate two times a year. In this aspect, most of villagers could use rice as their staple food since they are farmers. Second, Prek Trob village is connected to TSL, and local villagers, either farmers or permanent subsistence fishers, could do subsistence fishing in the community fishing area of 1224 hectares, which was released to Prek Trob community in 2000. A positive aspect of the fishing is that it could allow villagers to catch enough fish for daily consumption in the family. In this way, the villagers did not need to use their income to buy fish from the market. Another benefit was that it also allowed Prek Trob villagers to get some income to support their family. Villagers could use the income from doing subsistence fishing to cover some expenses in their family. For villagers also involved with agriculture, as income from fishing could cover most household expenses, villagers did not have to sell their rice. As a result, most villagers could keep their rice to provide food for their family for year-round. It can be concluded that the presence of fisheries in Prek Trob was a main component in ensuring food security for local villagers engaging in agricultural activities.

For the rest of villagers (approximately 10%) not involved in agriculture, their

⁴⁰ An in-depth interview with a woman who is a member of CBO in Prek Trob, July 2011

living and food security depended on income from fishing. Income from fishing could be used to exchange other foodstuffs such as rice, vegetables, meats, condiments, and so on. This group of villagers needed to buy food such as rice on a daily basis from local villagers or local market. Though they did not own any agricultural land, they could secure access to food and daily needs because of the abundant of fish stock in the community.

With this combination of farming and fishing in Prek Trob community, access to food in Prek Trob was reliable and secure; however, it can also be projected that if the fish stock disappears from Prek Trob, the food security of local villagers will be severely affected. The most severe effect will be and/or is already seen with villagers whose food security depends on a single income from fishing. This group of villagers has to find other sources of income to buy enough food for their family. However, villagers engaging in agricultural activities are facing other effects due to the decline of fish stock. When fishing is undependable, it means that farming becomes a single source of income to ensure food security. The first impact is that when enough fish cannot be caught for household consumption, they need to allocate some money to buy fish for their daily diet. The second impact is that when enough fish cannot be caught, they also do not get income from fishing to support other expenses in their family. With farming as the sole source of income for the family, they have to sell harvested rice to buy other foodstuffs and cover expenses in the family. Subsequently, the amount of rice for familial consumption decreases, which results in inevitable food insecurity.

> "Five or six years ago especially before that, our villagers did not worry about their food. Before, during, and after farming they could do fishing in the lakes, or creeks in the community fishing area. Most of the time, they did not need to buy fish because they could catch enough fish for their family. If they had to buy fish, it was also cheap. They also got some income from fishing to support their living and other expenses. For other villagers who did not do any farming, they also could catch enough fish to exchange for food such as rice with other local villagers and could sell fish as their income. They did not face any big problems because they could catch fish

everyday."⁴¹

The situation of food security in Prek Trob has changed remarkably. To date, in terms of agriculture, villagers are able to harvest rice as normal, but it is still limited by an insufficient irrigation system. However, the most notable change is the change of fish stock in the village. The decline of fish stock has made the majority of Prek Trob villagers lose their jobs in household fishing. Today, in regards to fishing activities, local villagers - whether those engaging in agricultural activities or those depending on fishing - cannot catch enough fish to support their daily household consumption. This means that local villagers have also lost the additional income from fishing. Without fishing to supplement it, agriculture alone cannot support stability in Prek Trob's food security:

> "We rarely go fishing like before. How we can go fishing if we almost never catch enough fish to support our living. We cannot answer how much we earn from fishing; today we even cannot catch fish enough for our daily food. We have to buy everything from the market, even fish. You see fish at the market; they are not fish from our village. Most of them are raised fish imported from Thailand. It is unbelievable that a fishing community like us has to eat farmed-fish. In the past five or before that every house has many smoke fish, prahok, and paste fish. But today, no household has that kind of fish stored in their house. We even have to buy prahok from the market."⁴²

Nowadays, the daily diet of Prek Trob villagers depends heavily on rice; consequently, Prek Trob villagers use most of their land for growing rice. Then, they need to sell the harvested rice or agricultural products to buy other food stuffs like fish, meats, vegetables and fruit. Evidently, agriculture in Prek Trob is not productive enough to ensure food security in the village due to insufficient agricultural land and irrigation systems. As stated by local villagers and local authorities, they agreed that

⁴¹ An in-depth interview with Prek Trob village chief, July 2011

⁴² An individual interview with a subsistence fisher in Prek Trob in July 2011

the situation of food security in the village has become worse in the past five or six years:

"It is so ridiculous that subsistence fishers like us cannot catch enough fish even for food in our family. In this situation, how we can live? We have a small plot of land to cultivate rice. We cannot depend on only farming to support all expenses in our family. We have to sell some harvest rice to buy other foodstuffs because we do not have other income from fishing like before. We sell our rice, and then some months of the years we do not have rice to eat. We live one day, we worry for the next! Today, most of subsistence fishers like us face similar difficulties."⁴³

As mentioned in Section 5.1.2, Prek Trob villagers have tried a variety to earn a sustainable income. To get enough food for themselves and their family, some subsistence fishers not engaging in agriculture have become laborers or seasonal agricultural works paid on a daily wage basis. The daily rate is about three US dollars. With this amount of money, they could survive enough for one or two days. However, being seasonal workers, they do not get work every day, thus, it is difficult for them to earn a sufficient and regular income to ensure their food security:

"As I notice, my village has changed a lot. Many villagers are poorer and poorer especially permanent subsistence fishers. For those villagers, when they get up, what they think about first is where they could find money to buy food for themselves and their family on that day. To have enough food, my villagers have done everything they could."⁴⁴

Some villagers (either those engaging in agricultural activities or as permanent fishers) have migrated to work in Thailand as laborers or agricultural workers in order to secure income, and therefore, food. Yet, the remaining family members in the village in Cambodia face difficulties in accessing food. As observed by the researcher,

⁴³ An individual interview with a subsistence fisher in Prek Trob in July 2011

⁴⁴ An in-depth interview with Prek Trob village chief, July 2011

in many cases, villagers who migrate to work in Thailand normally leave their young children at home with an older woman to take care for them. As stated by Prek Trob village chief, villagers migrating to work in Thailand normally cannot send money immediately to support their family. So in this case, the food security in their family in Cambodia is placed on the burden of the elderly women. It is hard work for an old woman to find enough money to buy food for the family during the period before the remittance. This is yet another way in which food security is fragile in the community:

"The parents of these children have gone to work in Thailand. They left these three small children with me and my husband. Their parents did not leave any money for us to spend for food for their children. As we know, they even borrowed some more money to pay for transportation and the middleperson. We do not have harvest rice left, so we have to find money to buy food for ourselves and these children. Some days, I go to work in the agricultural field in the village. My husband stays at home taking care of these children. Now, it is nearly two months; they still do not send any money to us."⁴⁵

Seeing the importance of fisheries resources in the village, the idea of having a fish protection area for local villagers was initiated by the Prek Trob CF committee. As a result, the CF committee and the local people cooperated with each other to establish a fish protection area in the village in 2010. This protected area has been an important breeding sanctuary in the village. The area is carefully guarded and protected by Prek Trob CF and local community. All kinds of fishing are prohibited in the fish protection area. And then, all fish are released from the protected area when water from TSL floods into the protected area in rainy season. Then, Prek Trob villagers can catch fish released from the protected area by using subsistence fishing gears. The idea of creating the fish protection area is one factor that can help to increase the fish stock in the village. As noticed by local villagers, more fish are available in small lakes or creeks in the village. The increase of fish stock in the

⁴⁵ An in-depth interview with a woman whose family member have migrated to work in Thailand, July 2011

village, while only by a small amount, has helped to reduce the expenses of some villagers in buying fish from the market and providing more fish for daily food consumption.

Moreover, to meet the needs of local villagers, the Prek Trob CF has planned to enlarge the fish protection area in the village. The Prek Trob CF committee has convinced the commune councils to include a request for establishing more fish protection areas in their village in the commune investment plan (CIP) in 2011. If the request by Prek Trob CF committee is approved by the government, more fish protection areas will be established in Prek Trob in 2012. The Prek Trob CF committee hopes that their plan would help to improve food security for local villagers:

> "We (the CF committee) cannot wait and depend on fish from TSL anymore. We need to increase fish in small lakes in our community by our own. Last year, we created a fish protection area, and we did not allow any villagers to do fishing in that area in the drying season. Then we release the fish preserved in the protected area when it is flooded from TSL. Then, everyone can do fishing, but only for household fishing. We noticed from local people that they could catch more fish than previous year. And this year, the fish preserved in the protected area may be more than last year. So we hope that the amount of fish will increase in small lakes or creeks in our village this year. However, the increasing amount is never enough for our community.⁴⁶

The establishment of the fish protection area in Prek Trob was legally done under the Sub-decree on Community Fisheries Management (2005). This means that without the entitlement of the fishery legal framework, a government-recognized fish protection area would not have been possible to create, nor may have the community sustained it. In this regard, the decentralization policy in fishery management through establishing CFs has directly contributed to the improvement of food security.

⁴⁶ Address by the chief of Prek Trob CF during the group discussion, July 2011

5.2 The Doun Try Community

5.2.1 Decentralization and Changes in Community Economic Security

Decentralization and Changes in Level and Sources of Household Income

Doun Try community is especially well suited for fishing because it has a large fishing area and fish were plentiful. Until five years ago, the majority of Doun Try villagers, about 300 families, depended mainly on fishing. Fishing used to be the single source of income for most villagers there. Despite a large area of the paddy field in the village, farming was not a primary source of income for most families. As stated by local villagers, they could not depend on farming because of the poor irrigation system. Compared to farming, many villagers found that fishing could make a more consistent income. For this reason, in previous years, many subsistence fishers in Doun Try did not attempt many agricultural activities. Many subsistence fishers did not own specific agricultural lands or engage in farming. Some of them even sold their agriculture land to other villagers because they did not farm:

"We used to depend on only doing household fishing. Here in our village, many households were fishers. We used to catch a lot of fish, so we did not care about farming. We could make a very good income from fishing. Farming in our village is not regular. It changes year by year because it depends on the levels of water from TSL and rainfall. We are fishers, so we are not good at farming. Fishing is easier than farming for subsistence fishers like us."⁴⁷

With fishing as almost the single income for Doun Try villagers, when fish stocks are abundant, they can depend on their income from their fishing activities. In contrast, when fish stock declines, their standard of living is directly affected. However, as the fish stock disappears, more and more fishers will most likely try find alternative ways in which they could to earn an income. For example, they will

⁴⁷ A focus group discussion with fishers in Doun Try, June 2011

possibly concentrate more heavily on agriculture. However, any move into the agricultural sector will bring its own challenges. First, as mentioned, they do not have enough agricultural lands. Second, they do not own enough agricultural equipment, nor have sufficient capital to invest in increased agricultural activities. Finally, they may not possess the relevant agricultural skills for successful farming. In conclusion, the decline of fish stock is a severe burden for the fishers of Doun Try community.

According to local fishers and authorities, fish stock in Doun Try has declined sharply. They also stated that the decline of fish stock has changed the living situation of Doun Try villagers dramatically. For villagers who used to be involved only in household fishing, today they have had to change their vocation and do not have any income from fishing at all anymore. For those villagers who have not sold their land, they can try agricultural activities; however, they may have the necessary skills. Furthermore, yields appear to be low.

Those who do not own any land have become laborers or agricultural workers in the village on the daily wage basis. In an attempt to cultivate some agricultural goods, some villagers tried to clear the flooded forest to do farming. However, they stated that they could not always do so because they needed to pay some money to local authorities, fishery officers, and environmental government officers; otherwise, they would be arrested. They also stated the land is an important agricultural resource that has been captured by only the wealthy and powerful inside or outside of the village. All indications are that poor subsistence fishers have limited chances to own enough agricultural land.

"Fish is so scarce for fishers like us. We, the subsistence fishers, cannot catch enough fish for our living. We rarely do fishing. Only illegal fishers with modern fishing gears continue fishing because they still can catch fish in our village. The current situation in the village is really difficult for us after our village does not have fish anymore. Now we do farming in the village. Farming is not normal for us. For example, last year we got so little harvest from the farming."⁴⁸

⁴⁸ A focus group discussion with Doun Try fishers, June 2011

"We used to do fishing. Fishing was the only income our family could earn. And it was enough for our living. For me, my family did not face any difficulties at that time. Now I could not catch fish anymore. We, here (in the focus group discussion), do not have any land like other villagers because most of our time was on the lake. We did not care about clearing forest for agricultural land or keeping our land. I wanted to do agriculture too, but it is impossible for my family because we do not own any agricultural land. We used to try to clear flooded forest for doing agriculture too, but we were stopped. If we pay money to government officers, like other wealthy people in the village, we will be able to clear that forest. We are poor, how we can pay money? What we can do now is just working as a worker for other villagers in the village. The situation is so hard for our family now. Today, the people in the village like us can earn one day and live one day only."⁴⁹

Doun Try CF and fishery officers have not worked to control and protect the community fishing area for local villagers and to ensure equal access to the community fishing area (see Section 3.2.2.4). This failure of this decentralization policy implementation is a factor that has continually undermined the economic security of local villagers. When the fishing area has fallen under the control of wealthy and powerful illegal fishers, it is an enormous barrier for poor subsistence fishers to access to the fisheries resources of the community. Some lakes or creeks were sold and controlled by an illegal fisher. Then villagers could not use that area anymore. Illegal fishers also usually have better and/or bigger fishing gears to exploit fish resources on a large scale. Thus, subsistence fishers decided to quit their subsistence fishing. The decentralization policy, through either good or bad incarnations, is inherently linked to the community's economic security.

Decentralization and Changes in Job Reliability and Security

As stated, the economic situation in Doun Try has dramatically changed due to the absence of fisheries. Villagers' livelihoods are unstable and unsecured, and

⁴⁹ A woman addressed in the focus group discussion with Doun Try fishers, June 2011

agricultural or daily wages from agricultural labor is insufficient to meet needs. The villagers and local authorities all stated that many villagers have migrated to work as laborers or workers in Thailand, almost all illegally. This type of labor migration used to be rate: All of villagers interviewed said that if they still got income from fishing those people would not go to Thailand. As in the studies by IOM (2006), Deelen and Vasuprasat (2010), and Chan (2009), all found that Cambodian migrant workers in Thailand can face serious labor abuses and possibly be trafficked into commercial sex work.

"Some villagers in my village went to work in Thailand. Like last night, about 30 more villagers went to work in Thailand. Here some houses near my house and many other houses at the end of the village are now closed because they went to work in Thailand. They went to work there because they have no fishing job here anymore. And many of them could not make enough money to pay back debts from the bank. So, they have no choice, they have to go."⁵⁰

Moreover, as mentioned by a Doun Try village chief, most of the villagers have borrowed money from micro-finance institutions. Today, there are seven micro-finance institutions in Doun Try. According to the village chief, the loans borrowed by Doun Try villagers are about 200,000 US dollars as of 2011. This debt is also seen as a factor pushing Doun Try villagers to find any way possible to repay their loans; in desperation, the villagers do not much care about the risky work conditions they might face.

"The change in my village is just only the change in their face and some properties. They have motorbikes or phones in almost every house, but most of them borrowed money from micro-finance. In fact, nothing changes for them, they are even poorer. I do not have specific figure of people working in Thailand. However, I notice that for many villagers in our village,

⁵⁰ An in-depth interview with a fisher in Doun Try, June 2011

especially those are in debt, their last choice is to decide to go to work in Thailand to make money to pay their debts."⁵¹

The "disconnection" among local people, local authorities, and CF committee is seen as a failure in the implementation of decentralization in Doun Try (see Section 3.2.2.3 and 3.2.2.4). Doun Try CF and local authorities have not worked together to make any changes on the economic and social issues happening to local villagers. The absence of dialogue between local people, local authorities, and the CF committee is seen as a factor that issues such as migration and fish stock decline have not even been addressed and certainly not solved. To date, for example, the migration issue in Doun Try is still an issue that has received little attention. In this respect, decentralization has not facilitated the community's economic security.

Decentralization and Income Protection and Support

Due to the lack of attention from local authorities to the economic situation in Doun Try community, organized mechanisms to encourage income protection and support do not exist. Local authorities, nor government officials responsible for the community, have not helped initiate any social safety nets to help the vulnerable.

However, through a project initiated by FACT, a CBO, or village savings group, has been created to offer some form of income protection. A CBO was created with the participation of the local community and established in 2010. Like in other CBOs, CBO members can borrow from the saving funds. Members of the CBO are entitled to borrow funds at a lower interest rate. The interest rate paid to the CBO is 2% per month that is lower than other sources like private lenders at about 10-15%, or micro-finance institutions at about 3-5%. Moreover, conditions for obtaining the loan are not necessarily as complicated as in other financial systems because each member in the group acts as the borrower's guarantor.

Much like in other villages, members of the CBO have borrowed funds to invest in their agriculture activities. Some other members have used the loan from the CBO to make small businesses or expand their existing businesses such as raising pigs or livestock.

⁵¹ An in-depth interview with Doun Try village chief, June 2011

Though the fund is small, it provides a consistent social safety net in the form of accessible financial capital, though in small amounts. While the saving fund is somewhat limited in that it cannot respond to the needs of all members of the CBO or local villagers, it does improve the income of some villagers.

The case of the CBO project in Doun Try is a different kettle of fish from the CBO project in Prek Trob. The Doun Try CBO was not initiated by the CF committee, nor did the Doun Try CF help to unify and mobilize local villagers to support and participate in the CBO. In this particular case, the benefits of decentralization in relation to income security for the Doun Try fishers are not clear.

5.2.2 Decentralization and Changes in Community Food Security

Five years ago, as many villagers were permanent fishers, the food security of the majority of Doun Try community depended largely on household fishing. Not many local fishers owned a paddy field and engaged in agricultural activities as it gave fewer benefits to them compared with doing their household fishing. Some other local villagers in Doun Try owned a large area of farming land; these people have largely engaged in agriculture activities. While the rice cultivation in Doun Try is not regular because of poor irrigation system, it is, however, easier for wealthy farmers who have modern farming equipment and farming techniques to make the land productive. Thus, rice has been produced in Doun Try and available to even those not engaged in the direct cultivation of it.

For fishers, they could use their income from fishing to buy rice and other necessary foodstuffs in the village usually purchased on a day-to-day basis. Other villagers, who were permanent farmers, could access rice from their own harvest. Fish were abundant in the village, so the combination of rice and fish were main diet in the village. Fishers did not worry about buying fish for their daily consumption because they catch them, and for those villagers not involving with fishing, fish remained an affordable staple: food security was relatively stable.

However, now, as fish stock rapidly disappears from Doun Try community, food security is in peril. As 300 households out of 325 households are subsistence fishers, the affect on food security of subsistence fishers in Doun Try due to the

decline of fish stock is seen severer than in Prek Trob. Like in Prek Trob community, it is likely that Doun Try fishers will concentrate more on doing agriculture, yet there is are several challenges such as not enough agricultural land, equipment, financial capital for reinvestment, and cultivation skills. Without doubt, the absence of fisheries will have a negative effect Doun Try fishers' food security.

With the decline of fish stocks already being of paramount importance in terms of food security, the inability of the Doun Try CF and fishery officers in controlling and protecting the community fishing area will only further compound the problem. Like in Prek Trob, today, Doun Try fishers cannot even catch enough fish to support their daily household consumption. For example, *prahok* normally used to be available every house, and it was common for villagers to share foodstuffs in times of need. Villagers now have to buy most of these basic foodstuffs.

As local people are not empowered nor informed of their rights and duties by the Doun Try CF committee and fishery officials, they do not understand their basic rights and neglect to demand for more powers and responsibilities in controlling and protecting community fishing area. This lack of information dissemination and mismanagement by the CF committee and fishery officers does not appear to reinforce food security.

> "In the past four or five years, we had income from fishing to support our living. The income from fishing could buy rice or other foodstuffs for our living. It was more than enough for us. We even could save some money. After the catch was fewer and fewer, our living became worse and worse. You can see fish in the market; those fish are not fish from our village. But they are fish imported from Thailand. As we are fishers, we could not farm well like other farmers in the village. Some years, we do not even get any harvest from the farming. So today, we do not have enough rice to eat throughout the year."⁵²

Agriculture has not provided a better standard of living for the fishers and, as mentioned before, some local fishers have to work as laborers or agricultural workers

⁵² A focus group discussion with Doun Try fishers, June 2011

in the village or other villages nearby. The agricultural workers are mostly women and young children in the family. Normally, they are paid on daily wage basis which is approximately 3 US dollars a day. The jobs in the village mostly are seasonal jobs, so some days they have no income.

"We used to be fishers in this village. We rarely go fishing in recent years because we cannot catch enough fish for our living and food. Some of us here including me normally work as agricultural workers in this village or sometimes in nearby villages. We get paid daily starting from 10,000 riels (2.5 US dollars) to 14,000 riels (3.5 US dollars) a day. Normally, we use this daily income to buy food such as rice, fish, vegetables, ingredient, and other food stuff. This amount of money is so small, and it normally can be enough for food a day in our family. This is just only for food, how about other expenses in the family? This work is not regular. For example during these three or four months (May-August) we have no jobs."⁵³

As mentioned in Section 5.2.1, some other villagers have migrated to work as laborers or agricultural workers in Thailand. And, as stated before, while food security for them might be fine because they get sufficient income there, it is still a key concern for other members in the family in their village. As observed by the researcher, in many cases, villagers who migrate to work in Thailand normally leave their young children at home with an old woman to take care for them. As mentioned by the village chief, villagers migrating to work in Thailand are not able to send money to their family in the first 3-4 months. Most of the money sent is mainly to pay back the debt rather than to support the living and food in the family. So in this case, the food security in the family in Cambodia is placed on the burden of the elder women.

"Normally, if the parents migrate to work in Thailand, they leave their children at home or with their relatives. Sometimes, their children have to live with their grandparents when their parents are in Thailand. Oh when

⁵³ A woman said during the focus group discussion with fishers in Doun Try, June 2011

they go to work in Thailand, they cannot send money immediately. About first 3-4 months, they could not send any money. The grandparents of the children have to take care for those children. Sometimes, they do not have enough food to eat because they are poor, and they do not have preserved rice at their home. There are no choices; either the grandfather or grandmother of those children has to work to support those children living and food especially in the first 3-4 months."⁵⁴

Overall, the decline of fish stock and its impact to the food security of local villagers have not been addressed by the CF committee, local authorities, and fishery officers, for example, no fish protected areas have been created in Doun Try to improve food security in the village.

5.3 Kbal Taol Community

5.3.1 Decentralization and Changes in Community Economic Security

Decentralization and Changes in Level and Sources of Household Income

Geographically, as an isolated floating village, fishing is the single source of income for Kbal Taol community. No agricultural land is available in Kbal Taol community. Most of Cambodian people residing in Kbal Taol are subsistence fishers, and they are seen as the "poor" fishers in the village. Most of them own small-scale fishing gears for household fishing. Fishing is, thus, the only linkage the villagers have to any kind of economic security.

There are some businesses such as raising crocodiles and fish, fish traders, and rice and foodstuffs sellers in Kbal Taol Village. This could be a good opportunity for expanding village income and businesses; however, almost all of those businesses belong to the Vietnamese residing in Kbal Taol.

In comparison with Cambodian fishers, Vietnamese fishers in Kbal Taol own much better fishing gears, and Kbal Taol villagers often accuse Vietnamese fishers of

⁵⁴ An in-depth interview with Doun Try village chief, June 2011

engaging in fishing offenses. This is a persistent issue that should be addressed regarding to the economic equity and equal access to the community's resources. Many of the poorer Kbal Taol villagers, especially the subsistence fishers will be further marginalized if just a small group of villagers, for example the Vietnamese, continue to exploit the community natural resources such as the fisheries.

When fish stock was abundant in the village five years ago, there was no problem for the Kbal Taol subsistence fishers. According to villagers and local authorities, despite of the inadequate fishing space in the village, household fishing could support needs. Now it is quite a different situation.

As discussed with Kbal Taol villagers, in recent years, the subsistence fishers have caught fewer and fewer fish from the fishing areas they are able to access. The current average income of subsistence fishers is 2.50 US dollars to 5.00 US dollars a day per household and is not consistent. The income is generally used to cover family expenses such as buying rice, gasoline for their boats, and other foodstuffs. Now villagers say that the current income earned from fishing is insufficient. By the researcher's observation at the market and through conversations/research with the locals, this appears to be true.

> "The fish stock has decreased severely in our village. We have caught fewer and fewer fish. As subsistence fishers like us, we never catch much fish like other rich fishers in our village. You can see, only Vietnamese can have better fishing gears in our village. And they could catch much more fish than us. Most of them are much richer than us. Today, especially this year, we hardly live here now as we cannot catch fish like past five or six years. Our income is very little; as you can see, I earn only 9000 riels (about 2 US dollars) today from the whole-day fishing. How can I live in this amount of money a day? We are fishers are different from those people living on higher lands. Here we need to buy everything especially rice and gasoline."⁵⁵

The economic situation in Kbal Taol has become far worse after the public access areas and Prek Kra's fishing area was encroached by the fishing lot 1 of Pursat

⁵⁵ An individual interview with a Kbal Taol fisher at the place he sells his catch fish, June 2011

province since 2000. Nowadays, Kbal Taol fishers have not been able to do household fishing in those areas, and this has greatly reduced income. Kbal Taol community is further hinders by the great distances involved for transportation to access the fisheries. When fishing lot 1 of Pursat province commandeered the waterway in March 2011 (see Section 4.4.), the community lost exclusive and rightful access to a necessary transport corridor. Due to the resulting hindrances in transportation, basic goods such as rice and gasoline traded in the village became more expensive; moreover, the Kbal Toal fishers' catch has been devalued by fish traders. In sum, expenses are up, income is down. We see a resounding negative impact to the economic security of fishers in Kbal Taol village.

"The fishing area is important to Kbal Taol community. Now we have so limited a fishing area. That is our community's challenges when a floating community like ours does not have enough fishing area. For about eight years, we have not been able to access to the public areas or the fishing area of Prek Kra community. The fishing lot 1 of Pursat province has invaded this area and they even catch us if we cross that area. This year, it is even more difficult for our community because our waterway was also invaded by the fishing lot 1 of Pursat province. This waterway has belonged to our community for many generations. We do not understand why this has happened."⁵⁶

With no CF established in Kbal Taol, a specific fishing area has not been available for locals, nor is there much opportunity for protection for such a lot should it be created. Local fishers, instead, rely on a variety of possibly unsustainable means to access open areas and other nearby community fishing areas. Yet, locals have become unified in claiming for more fishing areas by forming a group of fisher representatives (see Section 4.4). As a result, the community has had some increase in fishing area after the return of a community fishing area by the fishing lot 1 of Battambang. It is the result of democratic decentralization. The released fishing area

⁵⁶ A focus group discussion with Kbal Taol fishers, June 2011

has also helped to improve the economic security of local fishers because they can do more fishing activities in that area.

Decentralization and Changes in Job Reliability and Security

With declining fish stock in combination with decreased fishing areas, the Kbal Taol's economic situation has greatly worsened: income is unreliable. Many households cannot depend on fishing career, plus there is an increased the lack of may forms of security, including economic, related to the disputes with fishing lot 1 of Battambang and Pursat provinces. In one of Cambodia's great ironies, the Kbal Taol fishers are often caught and penalized by the lot owners for their perceived encroachment. Although local villagers do not migrate to work in Thailand like in Doun Try and Prek Trob, some of local villagers have moved to other villages or higher lands due to the decline of fish stock and no fishing area.

"Some days, I earn about 20,000 to 40,000 riels (about 5-10 US dollars) a day in my household. Some other days, I cannot catch any fish for selling. So, I have no income. Fishing does not always get money. We have only about six months to do full household fishing. How we can live the whole year if we cannot save any cash for spending during the fishing rainy season that the water is too deep to do fishing. Some other villagers who have relatives in other villages or in the city stopped living here. For me, I don't know how much longer I can live in this village if the situation remains like this year."⁵⁷

After the borders of fishing lot 1 of Battambang was clearly measured and agreed on by all parties, the dispute with fishing lot 1 of Battambang was resolved (see Section 4.4), this has improved livelihood security for the Kbal Toal fishers as fishers no longer need to worry about getting caught or penalized by the fishing lot owner anymore, at least in this particular area. The organized efforts of the Kbal Taol community to protest against unfair fishing lot terms has helped to increase the job security of local fishers.

⁵⁷ An individual interview with a Kbal Taol fisher, June 2011

Decentralization and Income Protection and Support

As fishing is the only source of income for the Kbal Taol community, the threat to their daily income is higher after the decline of fish stock and limited access to fishing areas. The lack of cooperation from local authorities as well as the isolated location of Kbal Taol from Koh Chivaing commune may have led to a gap in external support for the community. As a CF through decentralization policy in fishery management policy has not been created in Kbal Taol yet; therefore, it is hard for local villagers to initiate projects or take collective actions to help their community like in the Prek Trob community.

Through FACT's intervention, a CBO was established in 2009. To date, the CBO in the community has 136 members (more than 60% are women) involved in the saving project. However, as of June 2010, the total saving fund from all the CBO members was about 1,000 US dollars. The contribution to the savings fund has, perhaps, been insufficient for Kbal Taol as most of the fishers are so poor that they are not able to put any money in the saving fund. The result is a high amount of lending but a poor amount of matched or increased deposits.

"We started the CBO project in 2009. Today we have 136 members. Most of them are women. However, the saving plan has not progressed much. Today, we have total saving fund nearly 4,000,000 riels (1,000 US dollars). The member do not involve much with the saving activities because most of them are poor and do not understand much about the CBO project."⁵⁸

There are not any micro-finance institutions in Kbal Taol community, so fishers borrow money from private lenders. The money they need to borrow is around 400,000-600,000 riels (about 100-150 US dollars) per household in one year. Normally, they use this money to spend on buying new or additional fishing gears such nets. The interest rate can be as high as 15-20% per month. (The lenders normally are Vietnamese businessmen in the village). Besides bearing exorbitant interest rates, the borrowers are often required to sell fish to the lenders at a reduced

⁵⁸ The chief of CBO who is a woman said in the group discussion with CBO committee in Kbal Taol, June 2011

rate of 15-20 % cheaper than the regular rate. Without any other options, Kbal Taol fishers borrow money from the businessmen and accept the conditions. Private business appears to have weakened income security.

"Today, most of the villagers here borrow money from private sources. Normally, they are the Vietnamese fish traders in our village. Regarding to the condition of loan, first we pay the interest rate to the lender. If we borrow 1,000,000 riels (250 US dollars), we have to pay monthly amount starting from 150,000 riels (about 37 US dollars) to 200,000 riels (50 US dollars) as the interest rate. Second we have to sell fish we catch to the lender and normally the lender buys fish from us cheaper. We have to sell to them at any price they say. Normally, they cut the interest and money we borrow from income we earn directly. If we still cannot pay back all the loan and interest, when we need money to buy something, we need to ask to borrow from them again."⁵⁹

5.3.2 Decentralization and Changes in Community Food Security

As reiterated, fishing is the sole source of income for Kbal Taol subsistence fishers. Most businesses, such as fish traders, ingredient sellers, battery chargers, small and medium vendors, restaurants and coffee shops, in the village do not belong to subsistence fishers' group. Without access to agriculture, subsistence fishers use their income to buy rice and other foodstuffs from local vendors - most of whom are Vietnamese.

According to the villagers, when fish were abundant in the village, they did not face difficulties in making money to buy foods and other basic needs despite the limited fishing area. Today, the situation is different: the Kbal Taol villagers say the collusion and inability of fishery officers in combating illegal fishing activities is yet another factor increasing the decline in fish stock. Fishery management, through decentralizing power to local authorities - namely fishery officers, has failed in controlling and protecting fisheries resources, resulting in poor food security.

⁵⁹ A man said during the focus group discussion with fishers in Kbal Taol, June 2011

In 2011, subsistence fishers say they cannot catch any fish at all some days, so they have to eat less food or have only food for their children. Fishers have begun substituting porridge for rice to save money.

The absence of fisheries in Kbal Taol has become a sensitive issue in the village. It begs the question of the community will handle the impending increased food shortages, inevitably linked to declining fish stocks. If the problem is not addressed by local authorities and responsible government officials, it will be a large food security threat to the entire Kbal Taol community but especially for the subsistence fishers.

"We do not catch enough fish to buy rice and foodstuffs. For example, today I get nearly 10,000 riels (2.5 US dollars) from my fishing. So I can buy only one kilogram of rice (3,000 riels per kg) and a liter of gasoline (5,800 riels per liter). And there are six people in my family. We cannot we eat enough a day with this amount of rice. We have to live like this every day for subsistence fishers like us. I cannot say about quality of the food we have eaten. We never care for the quality of food. What we think the most is to have enough food to eat in a day. We never know how food is good or bad to our health"⁶⁰

5.4 Decentralization and Community Trends in Human Security

5.4.1 Decentralization and Health Security

In all three villages there is no health center or pharmacy. Medicine is bought informally from vendors, who are not trained pharmacists. There is a health center that the Prek Trob villagers can access in Prek Norin commune, and also a health center for Doun Try villagers in Chhrey commune, but these health centers are more than 10 kilometers from the village. Furthermore, the roads to the health center for both communities are in very poor condition, especially in rainy season. The health

 $^{^{60}}$ An individual interview with a Kbal Taol subsistence fisher at the food store, June 2011.

centers have a dire shortage of medical staff and medicine, and can only treat minor symptoms and injuries. For serious diseases or emergencies, the patients must travel to the hospital in Battambang town, which is about 70 kilometers away for Doun Try and 35 kilometers away for Prek Trob, and difficult to access. The most serious problem is with the Kbal Taol community, however as their access to healthcare services is extremely difficult. As an isolated floating village, the patients need to travel to the hospital or health center in Siem Reap province⁶¹ by boat. It takes at least about three hours. The regular boat travels to Siem Reap is once a day; it is too expensive for poor subsistence fishers in Kbal Taol to hire by a private boat.

Access to safe drinking water also remains a problem in each village. All villagers depend largely on rainfall, water from TSL in the rainy season, and water stored in small lakes and the stream in the dry season. In Prek Trob and Doun Try, villagers are increasingly concerned about agricultural chemical waste polluting the local streams and lakes. Furthermore, in these two villages, there are no sanitation systems for human waste, which most certainly affects the quality of water and can make the water unsanitary. However, all the people interviewed in either Prek Trob or Doun Try village were reluctant to say whether they boiled or filtered the water before drinking at all times.

The most serious problem with clean water is in Kbal Taol where the water is, in this researcher's opinion, 'horrible'. The Kbal Taol community's settlement is at the end of the Doun Try stream, so, the water is already polluted by the upstream population. Kbal Taol villagers normally use the water in which human and kitchen wastes have been released. Kbal Taol villagers do not, or most likely, cannot boil or filter their water regularly because they live on boats with limited space and facilities. Normally, they drink lake from wherever they are. It is very rare for Kbal Taol villagers to use rainfall because they do not have many containers.

In regards to the fishery management decentralization policy and health security for the people of Prek Trob community, there has definitely been some results: the CF committee has worked with KAWP to educate people about the basic healthcare and sanitation such as encouraging villagers to filter or boil water before

⁶¹ Siem Reap is a province around Tonle Sap Lake bordering with Battambang province, the studied province. Travelling from Kbal Taol, Siem Reap town is closer than Battambang town.

drinking and to clean their houses and areas around their houses. On the other hand, in Doun Try where the CF was not successful and in Kbal Taol where a CF was not created, the implementation of the decentralization policy has not contributed anything to their communities' health security.

5.4.2 Decentralization and Environmental Security

Deforestation prevention has been a success in Prek Trob, where the clearance of flooded forest (which is important for fish shelter and breeding) is carefully protected by the CF. More flooded forest has been replanted in Prek Trob. In contrast, in Doun Try, flooded forest has been cleared for agricultural purposes. In Kbal Taol, flooded forest in the island near the village is cut by illegal fishers to make artificial fish shelters every year. This shows that Prek Trob CF has helped to improve environmental security in their community. In Doun Try and Kbal Taol villages, through the fishery management decentralization policy in fishery management, the communities and fishery officers have failed to address serious environmental issues.

There are no industrial complexes or factories near the villages, so it appears that the air is not polluted. However, because of the increased use of chemical products in agriculture and in households, land and water in each village is undoubtedly becoming more polluted. The water in Kbal Taol is turning dark with bubbles, and it appears to be the most polluted compared to the other two villages.

The decline of fish stock in each village is the main threat to environmental security. Illegal fishing is widely practiced in Doun Try fishing area where the CF cannot protect it. In Kbal Taol, illegal fishing is generally practiced in the open access areas and the fishing lots areas. In both villages, Kbal Taol and Doun Try, it has become usual that lakes or creeks are pumped out and all fish are caught in dry season (Section 3.3.3). In Prek Trob, all illegal fishing activities are prevented by the CF and local authorities; however, the fish stock has yet to recover. Moreover, in Prek Trob, a fish protection area has been formed to try to increase the fish stock in the community. The results are still limited. This shows that the result of the fishery management policy through establishing CFs have failed to protect fisheries resources for each community.

Environmental insecurity is greatly increasing for these TSL communities, and the fishery management policy has yet to produce sufficient salient results.

5.4.3 Decentralization and Personal Security

Prek Trob's personal security can be classified as good. Violence and crime are rare in the community, and there is a strong sense of unity. The prevention of crime and violence is partly due to the close cooperation between the community and the local authorities; the law enforcement of the local authorities is generally trusted. The Prek Trob CF has driven this sense of social capital and contract. For example, the community has become more unified and empowered after the CF has become a successfully managed organization (see Section 3.2.1.2 and 3.2.1.3).

In Doun Try, crime and violence occasionally occur, especially during festivals or ceremonies in the village. There is less unity among the villagers, and this is seen as a factor causing violence, especially among youth. As Doun Try CF has been somewhat unsuccessful in its mandates, the villagers hold the CF responsible for the lack of personal security.

In Kbal Taol, personal security is adequate with some caveats. A youth group has been formed to educate and address local people on all kinds of crime and violence. With the fisher representatives resolving the disputes with the fishing lot 1 of Battambang province, conflicts and violence between the fishing lot 1 of Battambang province and Kbal Taol fishers has been reduced. However, the disputes with the fishing lot 1 of Pursat province have not been solved yet. It remains risky for Kbal Taol fishers in this area. More often, they have disputes with this fishing lot owner, and sometimes they are even arrested and penalized.

Domestic violence has reduced remarkably in each village according to the respective village chiefs. This is attributed to the educational programs from KAWP and FACT on gender and domestic violence to help local people understand their roles and responsibilities in the family. This success included contributions not only by FACT and KAWP but also by the CFs in each community, and by the youth movement in Kbal Taol.

5.4.4 Decentralization and Political Security

Villagers in Prek Trob understand their basic rights, such as their rights to participation and to freedom of expression. The CF committee has mobilized and encouraged local people to participate in CF activities. Local people have also involved with advocated activities for the protection of the community's natural resources and in claiming for more control over resource allocation (Section 3.2.1.3). The voices of the Prek Trob community are increasingly influential to the local authorities and government agencies. Dialogues between community representatives and representatives of the local authorities about the community's interests and concerns have happened increasingly regularly in Prek Trob. This shows that the presence of decentralization in Prek Trob has helped the community with more empowerment.

In contrast, the political security situation in Doun Try is quite different from in Prek Trob and Kbal Taol. There is less participation of local villagers within the activities of the CF. Dialogues and meetings between the communities and local authorities are still rare. Most Doun Try villagers interviewed were reluctant to share information regarding what has happened in the community, which indicates that knowledge about rights of expression and participation among villagers remain weak. Overall, there is a lack of trust and cooperation between local people and local authorities in Doun Try community. As observed, Doun Try CF has failed to mobilize and empower local people to be aware of their basic rights and rights to their community fishing area (Section 3.2.2.4).

Similar to Prek Trob, Kbal Taol villagers understand much about their basic rights such as rights of participation and expression. Kbal Taol villagers have actively worked to claim for more fishing area for the community and to solve the disputes with the surrounding fishing lot owners. Meanwhile, messages and voices from the Kbal Taol community are increasingly influential to concerned authorities. This unity in demands is key to strengthening community security. However, the villagers' struggle in claiming their fishing rights has been discouraged by fishery officers and local authorities. Fishery officers appear to have actively restricted the rights and powers of the villagers. The decentralization plan to devolve authority to the local fishery fficers has negatively impacted Kbal Taol.

5.4.5 Decentralization and Community Security

In Prek Trob there is a unity and social capital is strong. In contrast, in Doun Try, where the CF is weak, community security is also weak. Labor migration to Thailand from each village has made both villages quieter. As mentioned in Sections 5.1.1 and 5.2.1, the decentralization policy in fishery management has failed to make the fishery stock recover, thus leading to labor migration. While leaving some local people becoming workers or laborers, it has divided some local people in each village into different status. Migration and exposure to Thai culture has also changed the value system of the local culture. Community security in both villages may also be worsening because decreasing fish stocks are affecting economic and food security.

Kbal Taol village also has strong social capital linkages. They could unify the community to claim for more fishing areas and solution over disputes with fishing lot owners. However, in Kbal Taol, the problem may be communal divides to the presence of diverse ethnic groups. In Kbal Taol, the village is divided into two different groups of villagers, Cambodian (Khmer) villagers and Vietnamese villagers. Though these two groups of people do not have major conflicts with each other or discriminate one another, they cannot unify as one community easily because of different cultures and languages.

5.5 Summary of Findings

Overall, the economic and food security of all three studied communities have not been strengthened in the last five years. The main cause of the weakening economic and food security in these communities is the severe decline of fish stock. The cause of fish stock decline is partially due to the lack of success of the decentralization policy in fishery management through establishing CFs.

Fishing cannot be a reliable and/or stable source of household income for subsistence fishers in each village anymore. At the same time, alternative mechanisms

for ensuring income and employment stability has not existed, nor has been created. The absence of fisheries in securing income and living of subsistence fishers in each village has increased risks and unreliability in their employment.

As income from fishing has decreased severely, it has increased food insecurity of fishers in each village. Food, namely rice, is still available and supplied locally in each village. However, the supplies of fish for daily household food consumption have declined sharply. However, due to reduced income, purchasing power and food access for subsistence fishers in village remains a case of marginal amounts with little regard to quality, i.e. barely meeting basic caloric requirements without regard to nutritional value.

CHAPTER VI

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

In the previous chapters, the various aspects of the Cambodian decentralization policy in fishery management and the human security of fishers around TSL have been discussed. Based on two case studies in two villages, Prek Trob and Doun Try, the challenges and opportunities of CFs in the aspects of deconcentration and democratic decentralization are analyzed in Chapter 3. The challenges and opportunities of a community without a CF, namely Kbal Taol community, are discussed in Chapter 4. In Chapter 5, the changes and implications in human security for fishers in Prek Trob, Doun Try and Kbal Taol communities, due to the implementation of decentralization policy in fishery management through establishing CFs, are investigated. Based on this analysis of findings from Chapter 3 to Chapter 5, discussion, conclusion and recommendations are made in this final chapter. The chapter begins by discussing on the findings. The conclusion itself is based on the conceptual framework and hypothesis stated in Chapter 1. Recommendations compose the last part of this chapter.

6.1. Discussion

6.1.1 Observations on Democratic Decentralization, Deconcentration, and Economic and Food Security in Each Community

In the context of all three cases studies, the decentralization policy in fishery management through establishing CFs and economic and food security are observed as follows:

Democratic Decentralization:

In each case study, it is seen that participation, decision-making powers, rights to resources, and the powers allocated to local people in managing, controlling, and protecting the community fishing areas have had many limitations. Prek Trob is a successful CF because democratic decentralization has allowed the community to actively participate in and engage with activities of the CF. The community has been equipped with feelings of "unity" and a strong sense of social capital linkages within the community. This is seen as a strong foundation with which to make the CF even stronger. In the Prek Trob case study, this particular CF has become an empowered CF and has gained some autonomy over managing and protecting the community fishing area. With an increase in decision-making power, and sense of community unity, the CF has also been empowered. Local people and the CF have been able to take collective actions to manage and control their community fishing area effectively. This shows that Prek Trob community has challenged and acted around the official system of decentralization policy to gain power for its own community. As the result, Prek Trob CF has been able to ensure community equity of access to the community fishing area.

In contrast, in Doun Try, the CF has failed because the implementation of democratic decentralization has restricted the participation, decision-making powers, resource rights, and autonomy of the community in controlling and protecting their community fishing area. The participation of local communities has been restricted by the Sub-decree on Community Fisheries Management since the beginning. Local people and the CF have acted along the official system as stated in the Sub-decree. But, as the Sub-decree has limited powers of local people and CF over their community fishing area, it has made become difficult for local people and CF to take collective actions to manage and protect their area. As a result, local people and the CF have failed to manage and protect their community fishing area. Equal access to their community fishing area is not the case in Doun Try. To date, the community fishing area has been dominated by wealthy and powerful illegal fishers.

The effects seen in Doun Try are similar to what is seen in Kbal Taol, where a CF has not been established, and democratic decentralization has not ensured rights and powers of the local people and the community. Though Kbal Taol villagers have actively participated in advocating and claiming a feasible fishing area and establishing a CF, their rights and powers have not been acknowledged by the fishery officers responsible for that region. To date, the decision-making powers and other powers within the community have been dominated by fishery officers. If a

community does not have a specific fishing area, decision-making powers and rights to resources, it is impossible to encourage local people to take collective actions to manage and protect the fishing areas around their community. As a result, like in Doun Try, the public access areas and a part of the community fishing area have been invaded by wealthy and powerful illegal fishers. So far, Kbal Taol villagers have not had enough fishing area for their community, and they have not been able to access to the open access area in their community.

Deconcentration:

It appears that the responsible government officers, namely fishery officers, are at all not responsive and accountable enough to ensure effective fishery management in each studied community. Due to the domination of power by fishery officers in each community, fishery officers have not been forced to cooperate and intervene effectively in combating and preventing illegal fishing activities. Moreover, fishery officers have had no willingness or "buy-in" to protect the interests of each community. This means that fishery officers have not been an effective partner in managing and controlling the community fishing area in the case studies.

The CF in Prek Trob appears, in contrast, successful has because the Prek Trob CF was not initiated under the authority of fishery officers. Local villagers and the CF have successfully challenged the government for more powers and responsibilities over their community fishing area. Partnership and cooperation between local authorities such as the Prek Norin commune council, and the commune police, local villagers and the CF has been far more effective in combating and preventing illegal fishing activities.

Economic and Food Security

Unsuccessful community fishing area management in some communities, such as in Doun Try and Kbal Taol, has to a sharp decline in fish stocks have in all communities in TSL. TSL is a shared resource. If some fishing areas under successful CFs are managed and protected effectively, while other areas under unsuccessful CFs and are not managed and protected effectively, every community around TSL suffers ill effects. For example, in Prek Trob, despite the presence of a successful CF, local fish stocks have not recovered: the catch by local villagers has decreased. It can be interpreted that fisheries in their community have not yet been able to provide sufficient economic development/security to local villagers. As a result, participating in household fishing is not seen as a valid contribution to household income, job reliability and security, nor does it count as income protection/support in each studied community. Each time the decentralization policy in fishery management fails to manage and protect the fisheries resources in some communities, in reality, the economic security of fishers in every other community has also become worse.

In regards to food security, because decentralization has failed to control and protect fisheries resources in some areas, the fish stocks have not recovered in each community. As a result, fewer fish for consumption are available in the village. Moreover, fewer fish are served in the daily diet because fish become more expensive and unaffordable for some villagers. In addition, as the income from doing household fishing decreases, local fishers have not been able to make enough (cash/wage) income to buy other foods such as rice, vegetables, meats, fruits, etc. to consume in addition to and/or substitute for the lack of fish. Thus, the decentralization policy in fishery management has not yet improved the food security of local fishers in each community.

6.1.2 Some Lessons Learned from the Implementation of the Decentralization Policy in Fishery Management

Two main lessons learned can be deducted from the case studies regarding democratic decentralization, deconcentration, and human security.

The Importance of Social Capital for Better Decentralization:

The case studies of Prek Trob and Kbal Taol communities demonstrate how the amount of social capital in a community is a critical factor in the creation of a successful and empowered community that can control and protect its community fishing area. The unity and initiative shown by the local people in starting up a community organization is a key reason in why a CF is strong and sustainable. When an organization develops from and within the community itself (in a grassroots initiative), the community will most likely regard that organization as their own organization. They will have a stronger sense of belonging and ownership, and this is important in retaining long-term and productive community attention and involvement. Furthermore, the idea of forming a group to challenge and advocate for the community power and rights itself promotes unity and social capital connections and linkages. The relationships, attitudes, and values governing and unifying interactions among people and authorities contribute towards a strong and empowered community. In this regard, it is seen that the sense of community social capital has facilitated mutually collective actions effectively in the community. There is also increased trust-building within the community and with authorities. These are all factors that continue to positively attract the participation of the community in taking collective action to control and protect their community fishing area.

The lesson learned here is that strong community social capital plays an important role in making the decentralization policy in fishery management work better.

The Emergence of a New Approach to Fishery Governance:

In the Prek Trob case study, effective intervention under the authority of local authorities (commune councils, commune police, and the village chief has effectively helped curtail illegal fishing activities in the community fishing areas. Control, protection, and prevention mechanisms have been implemented successfully with good partnership and cooperation between local authorities, local people, and the CF committee without, or with less than optimal, cooperation with fishery officers.

This change in effective forms of managing, controlling, and protecting the community fishing area in Prek Trob is the emergence of a new approach to fishery governance. This new form of managing the community fishing area in Prek Trob through cooperation with local authorities may be an effective model for future fishery management policy in other communities in Cambodia.

6.2. Conclusion

The study was conducted in an attempt to answer the main question: "Is decentralization in fishery management in Cambodia, through establishing community fisheries, strengthening the food and economic security of fishers around Tonle Sap Lake?"

Overall, the democratic decentralization process has not fully granted the communities with the necessary powers, resources, user rights and autonomy in decision-making to develop and manage fishery resources in the communities. At the same time, the process of deconcentration can be considered incomplete in that responsive and accountable authorities have not been created either.

Cooperation and partnership between fishery officers, CFs, and local communities in managing, controlling, and protecting the community fishing areas have not always worked. One case study has shown a successful CF, implemented under cooperation and partnership between local authorities (commune councils and village chiefs), CFs, and local people, but notably without cooperation from fishery officers.

A successful CF ensures equity of access to community fishing areas, considerable power and ownership of communities' fisheries and natural resources, a strong sense of community and social capital, and an awareness of basic human rights. However, having the successful implementation of a CF is not always enough to recover fish stock in a community. Fish stock might truly recover if many more CFs were widely successful around the TSL. In contrast, an unsuccessful CF permits fishery officers to have sole responsibility over the CF and seems to lead to an increase in illegal fishing activities, and may further weaken the community.

Tonle Sap Lake, as stated before in this thesis, is a shared resource. If some fishing areas under successful CFs can be managed and protected effectively, while some other areas under unsuccessful CFs cannot be managed and protected effectively, the unfortunate reality is that every community in and affiliated with TSL suffers to varying degrees. The Royal Cambodian Government's deconcentration and democratic decentralization through establishing CFs has not ensured effective community fisheries management and sustainable uses of communities' fishery resources around TSL yet. In all three case studies for this thesis, fish stock in each community has decreased dramatically. As a result, fishers' real income from fishing has declined, and there is insufficient fish available for personal household consumption. Therefore, the decline in fish catch has had a negative direct impact on economic and food security. Therefore, it can be concluded the current government policies on fishery management are not working.

6.3. Recommendations

To remedy the gaps in implementation of Cambodia's decentralization policy in fishery management, recommendations are made as follows:

- Effective Fisheries Laws and Policies Enforcement: To create effective enforcement of fisheries law and policies, the following issues need to be resolved:
 - The Cambodian government must address and combat corruption in the fisheries sector by supporting activities to improve transparency, communication, and negotiation between all stakeholders.
 - Actions against illegal fishing offenses and against the destruction of fish habitats should be urgently taken by the Cambodian government—through education and enforcement.
 - 3) The implementation of fishery management policy by all fishery officers or concerned authorities must be closely monitored and evaluated to ensure their effectiveness, transparency, and accountability.
 - 4) The Cambodian government should ensure effectiveness and transparency in combating fishing offenses. In particular, the involvement and intervention of authorities (police or military) in

stopping, suppressing, and arresting fishing offenders or related crimes must be tackled.

- Strengthening Deconcentration and Democratic Decentralization: To bring further deconcentration and democratic decentralization in place, some areas of fishery management policy should be reviewed:
 - Considerable resources, roles, rights and powers to CFs, local communities, and local authorities need to be provided to engage in the management and conservation of fisheries and natural resources in their community.
 - 2) Cooperation and partnership in managing, controlling, and protecting community fishing areas should be placed under the cooperation and partnership between local authorities and CFs rather than fishery officers or fishery administration. For example, the intervention in combating fishing offenses in a commune area should be the responsibility of the local authorities and the commune police.
 - Fishery officers involved in enforcing the fishery management policy must be more accountable, responsible and responsive to local communities and CFs.
- Financial and Technical Support to CFs: Financial and technical support and advice should be provided by the government and NGOs to enforce and implement the fishery management effectively. Key areas to support and work for are:
 - 4) Capacity-building for fishery officers to work effectively and responsively in accordance with their responsible positions;
 - 5) Capacity-building for CFs committees in managing CFs, building and developing CFs projects by strengthening their technical capacity;
 - 6) Promoting education about the importance of conserving community fisheries and natural resources; and
 - 7) Supporting, following up, monitoring, and evaluating the implementation of CFs.

- Promoting and Creating Alternative Jobs for Subsistence Fishers in Kbal Taol Community: The Cambodian government and concerned NGOs should concentrate on giving support for alternative livelihood and microcredit schemes to local fishers like in Kbal Taol where fishing is a single source of income for subsistence fishers. Alternative jobs and economic potential should be created for subsistence fishers so that they do not depend on only income from family-scale fishing.
- Improving Irrigation Systems and Promoting Diversified Agriculture in Prek Trob and Doun Try Communities: Alternatively, to strengthen economic and food security in these communities, the Cambodian government should invest in agriculture in both communities, where fisheries have declined. More irrigation systems should be built in both communities. At the same time, diversified agriculture should be promoted to supplement the income of subsistence fishers and farmers in both villages.
- Cancelling the Fishing Lot Areas: Reported revenue from fishing lot is approximately 2 to 3 million US dollars per year. The revenue is worth about 1 to 2 dollars to each local fisher around TSL (FACT, 2000). Auctioning the fishing lot areas to private businessmen is often seen as just to bring benefit to a small group of people, while leaving millions of local fishers in poverty. The decline of fish stock has been accelerated by industrial violations in concession fishing lots. One reasonable solution is that all fishing lot areas are returned to the government. Then the government can allocate some more areas to local communities to manage through establishing CFs. Some other areas of the returned fishing lots should be turned into fish protection areas under the control of the government.
- **Fisheries Conservation:** The government should prioritize the protection of fish and fish spawning areas, and increase fisheries conservation areas

and areas for wildlife species. The government should regulate the size of fish to be caught. For example, the catch of small fish must be strictly prohibited.

Piloting a New Fisheries Governance Model: Seeing the success of a new form of fisheries governance in Prek Trob (point 2 in Section 6.1.2), it would be useful to put this new fishery governance model into practice in more communities. In this regard, involved NGOs should learn from the success of Prek Trob CF and then apply the lessons learned in other CFs. Researchers should do more studies about the possibility of the new fisheries governance model in Prek Trob as to whether it can be considered as an applicable fisheries governance solution around the TSL or not.

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APPENDICES

APPENDIX A

QUESTIONS FOR GROUP DISCUSSIONS WITH LOCAL FISHERS

Village Name:_____ No. of Participants:_____ Date:_____

A. General Information

- 1. Please me tell about the fishing situation in your village
 - a. Where does your community go fishing? How far?
 - b. How often do you go fishing? What kind of fishing gear do you use?
 - c. What kinds of fish can you catch? Where do you sell it? How much per kilo?

B. Economic Security

- 2. Compared to the past five years, is the current catch higher or lower? Why?
- 3. When is the highest income from fishing? When is the lowest income? Why?
- 4. How do you think about your income from fishing in the future? Higher/lower? Why?
- 5. Is the income from the fishing enough for your household expense? Why/Why not?
- 6. Do you think income from fishing in your family has improved? Can you depend your living on fishing in the future? Why/Why not?
- 7. Besides fishing, do you have any other jobs? If yes, what jobs? And how can it help your family?
- 8. If you need to borrow money, where and how to get a loan? What is the loan condition? Could you pay back? Why or Why not?
- 9. When you face difficulties, what support do you usually get from your community?
- 10. What difficulties have you faced in your fishing job? Travelling? Conflicts with fishing lots? Amount of catch? Illegal fishing? How should the problem be solved?

C. Food Security

- 11. Do you use the income from fishing to buy food? What food do you buy and what amount? Where do you buy? How far from your house?
- 12. How much you spend on food? How many meals do you have a day?
- 13. How do you think about your daily meals? Is it healthy to you? Why/Why not?
- 14. Is the income from fishing enough to buy food? Why/why not?
- 15. Has the food in your family improved than the past? Why/Why not?
- 16. Do you have enough food to eat throughout the year? Why/why not?
- 17. Basing on fishing, do you think the food in your family will be better in the future? Why/Why not?

D. Health Security

- 18. How often do you get sick? What illnesses? Where do you usually go? How far?
- 19. Do you pay for that? If yes, could you afford that? Why/Why not?
- 20. How do you think health care services in your village? How reliable is it?

E. Environmental Security

- 21. What natural resources are available in your community?
- 22. Comparing with past five years, the amount of resources more or less? Why?
- 23. Is the remaining amount enough for you and the community? Why/why not?
- 24. What do you notice the environmental changes in your community? How does it affect your community?

F. Personal Security

- 25. What accidents/violence might you face in your village or with other villages?
- 26. What accident/violence do you remember in your village? What was the causality?

G. Community Security

- 27. How do you feel about living in your village (about people, authorities, culture...)?
- 28. What has been changed in your village? How has it affect your village?

H. Political Security

- 29. Do you think you should raise village concerns to local authorities? Why/Why not?
- 30. If the local authorities or your representatives do not help your raised concerns, what should you do? Why?

I. Impacts of CFs on Economic and Food Security

- 31. Since establishing the CF, what do you think it has changed in your fishing?
- 32. Since establishing the CF, do you think it has improved your income? Why/Why not?
- 33. Since establishing the CF, do you think it has improved food in your family? Why/Why not?
- 34. What do you think the CF should do to improve income and food in your community?

J. Perspectives of Local People on CFs

- 35. Please tell me how the CF was created in your community? What activities have you participated? How has the CF committee selected?
- 36. After establishing the CF, how do you think about rights to access to the fishery resources in your community?
- 37. After establishing the CF, has it increased the community's participation in controlling and protecting fishery resources in your community? Why/Why not?
- 38. After establishing the CF, has it improved the authority's concerns and accountabilities in controlling and protecting your community's resources? Why/Why not?

K. Interaction with other Communities

- 39. How is the relationship between your community and other communities?Have you had any problems with people in other communities? If yes, what are the problems? And were those problems solved? If no, why not?
- 40. Does your community have any problems with the fishing lot? If yes, what are the problems? And were those problems solved, how solved? If no, why not?

APPENDIX B

QUESTIONS FOR INTERVEWING FISHERS ON

| ECONOMIC AND FOOD SECU | IKL | ľY |
|------------------------|-----|----|
| | | |

| Na | me of Village: | Date: | | |
|----|---------------------------------|---|--|--|
| L. | General Information | | | |
| | Name: | Sex: □ Male □ Female Occupation: | | |
| | Age: | No. of people in the family: | | |
| | 1. Where do you go fi | shing? How far is it from your community? | | |
| | 2. How often do you go fishing? | | | |
| | 🗆 everyday 🗆 1-3 | 3 times a week \Box 4-6 time a week \Box Other | | |
| | 3. What kind of fishin | g gear do you use? | | |
| | | | | |
| M. | . Economic Security | | | |
| | 4. What kinds of fish a | lo you catch? | | |
| | 5. How many kilos of | fish per day can you catch on average? | | |
| | \Box >1-5 kilos \Box >: | 5-10 kilos $\Box > 10-15$ kilos $\Box > 15-20$ kilos \Box other | | |
| | 6. Where do you sell i | t? How far is it from your village? | | |
| | 7. On average, how m | uch is a kilo of fish you catch? | | |
| | □ >1000-5000 riels | \Box >5000-9000 riels \Box >9000-13000 riels | | |
| | □ >13000-17000 rie | els $\Box > 17000$ riels \Box other | | |
| | 8. How much can you | earn from fishing per day on average? | | |
| | □ >1000-5000 riels | \Box >5000-10000 riels \Box >10000-15000 riels | | |
| | □ 15000-20000 riel | s $\Box > 20000$ riels \Box Other | | |
| | 9. Comparing to the pa | ast, how many kilos of fish could you catch per day? | | |
| | \Box >1-5 kilos \Box >: | 5-10 kilos $\Box > 10-15$ kilos $\Box > 15-20$ kilos \Box other | | |
| | 10. Did you ever earn h | igher than today? Why/Why not? | | |
| | 11. So the current catch | is lower/higher the past five years, could you explain me | | |
| | why? | | | |

- 12. When is the highest income from fishing? When is the lowest income? Why?
- 13. How do you think about your income from fishing in the future? Higher/lower? Why?
- 14. From your income, what do you buy everyday?
- 15. Is the income from the fishing enough for your basic living? Why/Why not?
- 16. Do you think income from fishing in your family has improved? Can depend your living on fishing in the future? Why/Why not?
- 17. Besides fishing, do you have any other jobs? If yes, what jobs? And how can it help your family?
- 18. If you need to borrow money, where and how to get loan? What is the loan condition? Could you pay back? Why or Why not?
- 19. When you face difficulties, what supports do you usually get from your community?
- 20. What difficulties have you faced in your fishing job? Travelling? Conflicts with fishing lots? Amount of catch? Illegal fishing? How should the problem be solved?

N. Food Security

- 21. Do you use the income from fishing to buy food? What food do you buy and what amount? Where do you buy? How far from your house?
- 22. How much you spend on food? How many meals do you have a day?
- 23. Is there any food that you can get or make without paying money? If yes, what? If no, why isn't it?
- 24. How do you think about your daily meals? Is it healthy to you? Why/Why not?
- 25. Is the income from fishing enough to buy food? Why/why not?
- 26. Do you have enough food to eat throughout the year? If not, how do you solve this problem?
- 27. Has the food in your family improved than the past? Why/Why not?
- 28. Basing on fishing, do you think the food in your family will be better in the future? Why/Why not?

APPENDIX C

LIST OF QUESTIONS FOR COMMUNITY FISHERIES (CFs)

| Name of the Community: | Date: |
|------------------------|-------|
| No. of Participants: | |

A. General Information

1. Tell me about background the CF? When was the CF was created in your community? Why was it created?

B. Creating the CF

- 2. Please tell me about the processes of creating the CF?
 - Who involved in this process?
 - Did the local people participate? If yes, what did they do? If no, why not?
 - What administrative documents and processes required?
- 3. How do you think about the processes of creating the CF? Challenging? Why?

C. Supporting and Managing the CF

- 4. What is the CF responsible for? To implement all those responsibilities, how has the CF been organized? Who have involved in planning and managing the CF?
- 5. So far, has the CF got any help from any NGOs/Govt.? If yes, who are they?
- 6. What have those NGOs/Govt. helped the CF here? Do you think those NGOs/Govt. are able to help you? Why/Why not?

D. Challenges and Opportunities of CFs

- 7. What successful stories has the CF had since it was created in your community?
- 8. What do you think the CF should have done since it was created in your community?

- 9. What has been a cooperation and relationship between the CF and the local government?
- 10. Has the CF had any problems with the government officers? If yes, why? How were the problems solved?
- 11. What do you think the obstacles the CF has with the local governments?
- 12. Do you think the CF can manage the community's fishery resources? Why/Why not?
- 13. Do you think it is good for the CF if the government involves? If yes, what level of involvement do you think useful for the CF? If no, why not?
- 14. What would you request to the government to help the CF in order to make the CF work better to protect and manage the fishery resources here in the future?
- 15. Has the CF ever had any problems with the fishing lot? If yes, what were the problems? How were the problems solved?
- 16. Finally, do you have any comments regarding: 1) government 2) local people3) NGOs

E. Impacts of CFs on Income and Food Security

17. Since establishing the CF, do you think the CF has improved income and food of local fishers? Why/Why not?

F. Interaction of the Community

- 18. How do you think about the interaction between the CF in your community with other CFs in other communities?
- 19. How do you think about relationship and interaction between people in your communities and people in other communities over fisheries and natural resources?

APPENDIX D

QUESTIONS FOR COMMUNITY-BASED ORGANIZATIONS (CBOs)

| Name of the CBOs:_ | Date: | |
|--------------------|-------|--|
| | | |

No. of Participants: _____ Name of Community:_____

A. General Information

- 1. Tell me about background of the CBO in your village. When the CBO was created in your community? Why the CBO had to be created in your community.
- 2. Who involved in creating the CBO? And how has the CBO managed?

B. Involvement of the CBO with the CF

- 3. What has the CBO done for the community?
- 4. What has the CBO helped and contributed to the CF?
- 5. How has the CBO interacted with the CF and the community?

C. Views of the CBO on the CF

- 6. Do you think the CF has enough power to manage the fishery resources here? If yes, why? If no, why not?
- 7. What do you think the CF should have done for the community?
- 8. How do you think it would be possible to make the CF work better to protect and manage the fishery resources here in the future?
- 9. Do you think it is good for the CF if the government is involved? If yes, what kind of involvement and what level of involvement do you think useful for the CF?
- 10. What is your recommendation regarding establishing CFs in fishery management and the implementation of this policy? What would you like to make a different?

APPENDIX E

QUESTIONS FOR PROVINCIAL AND DISTRICT FISHERY ADMINISTRATION

| Name of Informant: | Position: |
|--------------------|-----------|
| Dept | Date: |

- 1. Could you please tell me about the government decentralization policy in managing the fishery resources around the lake through establishing CFs?
- 2. What benefits do you think local people get from the reformed policy?
- 3. How are powers and responsibilities transferred to your institutions? What are those transferred powers and responsibilities?
- 4. What powers and responsibilities has your institution transferred to local government and community? And how are they transferred?
- 5. What are different levels powers and responsibilities of your institution, local government and communities in implementing this policy?
- 6. What have been the mechanisms of your institution in order to ensure the efficiency and effectiveness of the policy implementation by the local levels?
- 7. Regarding to CFs, how many CFs are there in your province/district? What has your institution involved with creating and managing CFs so far?
- 8. What have been the interactions between your institution, local governments, and communities so far regarding to implementing CFs in your province/district?
- 9. What challenges and opportunities do you see in creating and managing CFs in the communities?
- 10. What do you think CFs should do in order to make them work better?
- 11. Tell me why a CF has not been established in Kbal Toal Community
- 12. What do you think your institutions and local governments should do in order to make CFs work better?
- 13. How do you think economic and food security has changed since establishing CFs?

APPENDIX F

QUESTIONS FOR LOCAL GOVERNMENT OFFICERS

(Commune Councils and Village Chiefs)

Name of the Community:_____ Date of Interview:_____

- 1. Could you please tell me about the general aspects regarding to changes of the government policy in the fishery management around Tonle Sap Lake in the last decade?
- 2. What have been changes of the fishery management in your community so far?
- 3. Is there a CF in your community/village? If yes, could you please tell me about its background?
- 4. How has the CF been created in your community/village? Why was it created?
- 5. How have you and the community communicated each other in creating, organizing, and managing the CF?
- 6. What have been the mechanisms of your community in order to ensure the efficiency and effectiveness of the CF in your community?
- 7. What do you think about challenges and opportunities of the CF here so far? What mechanisms has your commune/village had to overcome those challenges?
- 8. Do you think the CF is important to your community? Why/Why not?
- 9. Do you think the CF is able to manage the fisheries and natural resources in the community? Why/Why not?
- 10. What do you think your commune/village and your community as well as the government should do in order to improve the CF in your community?
- 11. Since establishing the CF in your community, what do you think the changes of food and economic security of local people?
- 12. What benefits do you think local people in your community have gained from the CF?

APPENDIX G

QUESTIONS FOR NGO STAFF

 Name:
 Org.
 Date:

- 1. Could you please tell me about the project/your involvement/ your org/your study experience has involved in the decentralization policy in fishery management in Tonle Sap Lake?
- 2. Could you please tell me what has been your involvement in CFs? How has your work contributed to CFs?
- 3. What challenges and opportunities of having CFs in local communities have you observed?
- 4. Do you think CFs have represented and have been accountable to local people so far? What would be your suggestion?
- 5. Do you think CFs are able to undertake their jobs effectively? Why? / Why not?
- 6. How do you think to make the CF work better to protect and manage the fishery resources here in the future?
- 7. Do you think the government and NGOs have done enough work to support CFs? If yes, why? If no, why not?
- 8. Do you think it is good for the CF if the government is involved? If yes, what involvements and what level of involvement do you think useful for the CF?
- 9. What you think about the interaction between government officers with CFs in controlling fisheries and natural resources in the community so far? What would be your suggestion?
- 10. What strengths, weakness, opportunities, and threats do you see from the decentralization policy in fishery management and implementation by establishing CFs?
- 11. What do you think about the power interaction within the community levels? What would be your suggestion?

BIOGRAPHY

Borin Un is the author of this thesis. He is from Cambodia, and he is currently a Master candidate in International Development Studies, Faculty of Political Science of Chulalongkorn University in the academic year 2011. He got a Bachelor of Economic in Rural Development from Cambodian Mekong University in 2008. Before attending this Master program, he worked for over five years in the field of human resource management in private sector in Cambodia. His area of interest is social and economic development of countries in Southeast Asia, particularly Cambodia.