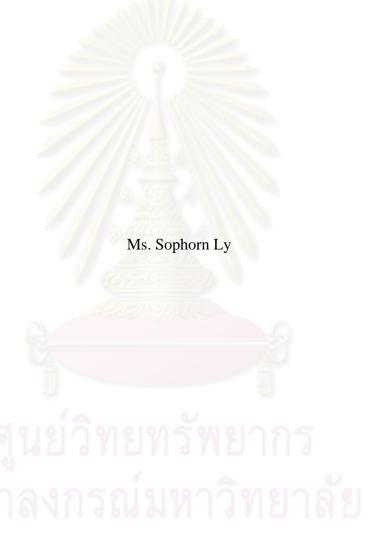
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COMMUNITY BASED NATURAL RESOURCES MANAGEMENT, GENDER AND LIVELIHOOD IN CAMBODIA A CASE STUDY OF TOUL NEANG SAV COMMUNITY PROTECTED AREA, KOMPONG THOM PROVINCE



A Thesis Submitted in Partial Fulfillment of the Requirements

for the Degree of Master of Arts Program in International Development Studies

Faculty of Political Science

Chulalongkorn University

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COMMUNITY BASED NATURAL RESOURCES

MANAGEMENT, GENDER AND LIVELIHOOD IN

CAMBODIA: A CASE STUDY OF TOUL NEANG

SAV COMMUNITY PROTECTED AREA, KOMPONG

THOM PROVINCE

Ву

Ms. Sophorn Ly

Field of Study

International Development Studies

Thesis principle advisor

Assistant Professor Philippe Doneys, Ph.D.

Thesis co-advisor

Naruemon Thabchumpon, Ph.D.

Accepted by the Faculty of Political Science, Chulalongkorn University in Partial Fulfillment of the Requirements for the Master's Degree.

Chus Sunla

laba

Dean of Faculty of Political Science

(Professor Charas Suwanmala, Ph.D.)

THESIS COMMITTEE

Chairperson

(Associate Professor Dr. Chantana Banpasirichote, Ph.D.)

__ Thesis Principle Advisor

Thesis Co-Advisor

(Assistant Professor Philippe Doneys, Ph.D.)

(Naruemon Thabchumpon, Ph.D.)

Member

(Assistant Professor Bernadette Resurreccion, Ph.D.)

โลภณ ไล: การจัดการทรัพยากรชุมชน ความสัมพันธ์หญิง-ชาย และวิถีชีวิตในกัมพูชา: กรณี ศึกษาพื้นที่ชุมชนอนุรักษ์ตวลเนียงษ้าว (COMMUNITY BASED NATURAL RESOURCES MANAGEMENT, GENDER AND LIVELIHOOD IN CAMBODIA: A CASE STUDY OF TOUL NEANG SAV COMMUNITY PROTECTED AREA, KOMPONG THOM PROVINCE)

อ. ที่ปรึกษา: ดร. Philippe Doneys, อ. ที่ปรึกษาร่าม: ดร. นฤมล ทับจุมพล. 99 หน้า.

การจัดการทรัพยากรธรรมชาติเชิงชุมชน (บทช.) เป็นกลยุทธ์สำคัญในการขอนุรักษ์และ ดำรงไว้ซึ่งทรัพยากรธรรมชาติในพื้นที่ชนบทของกัมพูชา มีส่วนช่วยลดภาวะยากจนและช่วย เพิ่มการมีส่วนร่วมของผู้คนในการจัดการทรัพยากรงานวิจัยชิ้นนี้มีจุดประสงค์ในการเก็บข้อมูล เกี่ยวกับการนำกลยุทธ์การจัดการทรัพยากรธรรมชาติ เชิงชุมชนไปใช้ในระดับชุมชนโดยให้ ความสำคัญเป็นพิเศษกับผลของการดำรงชีวิตของ เพศชายและหญิงและ บทบาทของพวก เขาในการสร้างกิจกรรมต่าง ๆ

ในการคันคว้า มีการใช้ข้อมูลทั้งแบบปฐมภูมิและทุติยภูมิ ข้อมูลทุติภูมิ ได้แก่ หนังสือ เอกสาร การวิจัยและรายงานส่วนข้อมูลปฐมภูมินั้นได้แก่ การทำการวิจัยจากกรณีศึกษาซึ่งมีทำ การก็บข้อมูล โดยการสัมภาษณ์อย่างละเอียดและการสำรวจ โดยเริ่มจากการเลือกกลุ่มตัวอย่างจำนวนสิบสามคนจากแหล่ง ชุมชนและแบ่งเป็นกลุ่มๆโดยแยกตามลักษณะงานที่ทำ จาก นั้นจึงทำการเลือกจากกลุ่มตัวอย่างมาห้าคนเพื่อ นำมาเป็นกรณีศึกษา

บริเวณที่ถูกคุ้มกันในชุมชนโดเนงแช็พถูกจัดให้อยู่ในประเภทหมู่บ้านเกษตรการประมง ซึ่งการประมงนั้นถือเป็นอาชีพหลักของชาวบ้านส่วนอาชีพรองคือเลี้ยงปลา-ไก่และสุกรปลูกพืช ปลูกดอกบัวและการประกอบธุรกิจเล็ก ๆก็มีส่วนในการสร้างรายได้เพื่อให้พอใช้กับรายจ่ายประ จำวันทั้งชายและหญิงต่างก็มีส่วนร่วมในกิจกรรมประจำวันต่าง ๆแต่ส่วนมากนั้นผู้ชายจะประกอ บอาชีพหลักและผู้หญิงมักประกอบอาชีพเสริม

หลังจากการก่อตั้งชุมชนขึ้น ก็มีผลดีต่อเกิดขึ้นตามมาในด้านสิทธิ เสรีภาพและความ พอเพียงของสิ่งก่อสร้างความสำเร็จในการบริหารงานทำให้เกิดโอกาสในการเข้าถึงและเป็นเจ้าข องพื้นที่และทรัพยากรในชุมชนมีการเข้าใจการบริหาร การใช้และการรักษาทรัพยากรมากยิ่งขึ้น ก่อให้เกิดทางเลือกในการใช้ชีวิต มากขึ้น และมีโครงการอนุรักษ์ชุมชนเกิดขึ้นเพื่อยกระดับชีวิต

ความสัมพันธ์ระหว่างชายและหญิงมีการพัฒนาขึ้นเนื่องจากการมีส่วนร่วมของผู้หญิงใน การหารายได้ความสามารถในการใช้และเข้าถึงทรัพยากรรวมถึง การบริหารชุมชนผู้หญิงนั้น ได้รับโอกาสที่จะเข้าถึงเศรษฐกิจของบ้านเรือนและนั่นหมายถึงมีการพัฒนาความสามารถในการ บริหารจัดการบ้านเรือนและการตัดสินใจที่ดีขึ้น

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LY SOPHORN: COMMUNITY BASED NATURAL RESOURCES MANAGEMENT, GENDER AND LIVELIHOOD IN CAMBODIA: A CASE STUDY IN TOUL NEANG SAV COMMUNITY PROTECTED AREA, KOMPONG THOM PROVINCE. THESIS PRINCIPLE ADVISOR: ASSIST. PROF. DR. PHILIPPE DONEYS, CO-ADVISOR. DR. NARUEMON THABCHUMPON, 99 PP

Community based natural resources management (CBNRM) is regarded as a significant strategy in the conservation of natural resources and sustainability of rural livelihoods in Cambodia, helps to reduce poverty and increase local participation in resources management. This research aims to investigate the implementation of this approach at the local level with the special attention to its outcomes towards the sustainability of women's and men's livelihood and their roles in generating activities.

The study uses data from both of primary and secondary sources. The secondary data are relied on books, research documents and reports while the primary data are derived from field research, using the case study method. Data collection techniques include in-depth interview, semi-structure and participant observation. First, thirteen people from the community were selected and categorized upon their jobs. Then, five people were chosen among these interviewees for the household case studies.

The Toul Neang Sav Community Protected Area has been classified as a fishing-agriculture dependent village in which fishing remains the main livelihood activity and dominant other occupation. Secondary or supplementary occupations such as fish cage, chicken-pig rearing, crops and lotus cultivation, and small business operation also contribute to household income generation particularly for household daily expenditure. Women's and men's are responsible for different livelihood activities. Men are more concerned with the primary occupation while women are much involve in supplementary jobs.

After establishment of the community, there is the positive impact on the local community livelihoods regarding to rights, freedom and capacity building. The implementation and the management tasks of the community provide opportunities for people to maintain and secure their livelihood with more freedom to access to and own the resources ground. They are more understanding about how to manage, conserve and use resources in a sustainable way. More livelihood options and other saving society program are also provided in order to up-grade the living conditions.

The relationship between women and men slightly improve due to the integration of women in income generating activities, ability to use and to access to resources and community management participation. Women gain more opportunities to engage in household economic distribution which lead to increase the ability in managing household tasks and decision making.

Field of study: International Development Studies Academic year 2008

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LIST OF ABBREVIATIONS

ADB Asian Development Bank

CARE Christian Action Research and Education

CBNRM Community Based Natural Resources Management

CBNRM-LI Community Based Natural Resources Management Learning

Institution

CPA Community Protected Area

DFID Department for International Development

FAO Food and Agriculture Organization

FiA Fisheries Administration

GDANCP General Department of Administration for Nature Conservation and

Protection

GMPSA Gender Mainstreaming Policy and Strategy in Agriculture

GMPSFS Gender Mainstreaming Policy and Strategy in Fisheries Sector

IDRC International Development Research Center

MAFF Ministry of Agriculture, Forestry and Fisheries

MoE Ministry of Environment

MoWA Ministry of Women's Affairs

MRC Mekong River Commission

NPRS National Poverty Reduction Strategy

SEDP Social and Economic Development Plan

UNDP United Nation Development Program

CHAPTER 1 INTRODUCTION

1.1 Background of Study

Modernization has played an influential role in the development of many countries, especially in the Third World. The characteristic of development is normally referred to as a process that results in economic growth, where traditional techniques have been transformed into modern ones using high technology through scientific knowledge in order to promote better living standards. However, at the same time there are concerns about environmental and natural resources including forest, fish, and water which are very crucial to meet local people's basic needs, particularly in the case of natural resources dependent communities. And as resources become increasingly scarce, people, therefore have to find new strategies for living. Furthermore, women's roles seem to be more significant since they have to do more works for daily survival while many men migrate to work outside the community. As the result, in the context of development, the ability and rights to access and control productive resources change and lead to transformation in gender roles and this means that woman become increasingly responsible for livelihood participating and decision-making.

Many governments in Asia, Africa and other parts of the world would have recognized a failure or the weak result of natural resources management and conservation in the last two decades (Ratha, 2005). There are now the signs of more global commitment to improve the management of natural resources. Recent changes in management policy and legislation in many countries reflect support for increased involvement of relevant stakeholders such as the private sector, non government organization, particularly local natural resources users. For this reason, the new movement in the management of natural resources, namely a participatory management approach has been formulated and adopted by many conservation and international organizations and donor agencies, for instance the World Bank, International Development Research Center (IDRC), Swedish International Development Agency (SIDA), Department for International Development (DFID), FAO, DANIDA, Canadian International Development Agency (CIDA) and the Ford

Foundation etc. Different terminologies to the new participatory approach have been used by different countries. However, central to all is the supporting of comanagement of natural resources aiming for biodiversity conservation as well as secure local livelihoods.

Like in other countries, Community-Based Natural Resource Management (CBNRM) in Cambodia is an alternative management system that focuses on sustainable use of natural resources through the participation of local people, by making their needs and objectives central to resources management and ensuring that local communities obtain a reasonable share of the benefits. This management approach has been increasingly accepted as a solution for environmental protection in order to achieve the goal of sustainable development. CBNRM was introduced into Cambodia when conflicts over access to resources were rapidly increasing and the natural resources were becoming scare. It has been seen in the form of community fishery, community forestry, participatory land use planning, join forest management and community protected area (Toby, 2005). These communities are under the control of different institutions but have the common purpose of ensuring sustainability in the use of resources economic production and to some degree "empowerment of communities".

So far, in 2001 the Cambodian government made some policy reforms aimed at reducing and transforming private or commercial ownership to increase local community control. The reforms have increasing made community based approaches to natural resources management more recognized. As a result of the policies, community protected areas (CPA) have been set up in 2003 through the proclamation issued by General Department of Administration for Nature Conservation and Protection (GDANCP)², Ministry of Environment to encourage community organizations to use and manage resources in protected areas in the context of increased demands on resources caused by a growing population, the increased migration of people and the limitation of resources accessibility. Thus, CBNRM has been constructed with certain rules and regulations in order to ensure that natural

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¹ Proclamation on the "Establishment of Community Protected Area" dated 30 May 2003.

² GDANCP was known as "Department of Nature Conservation and Protection". It was then promoted to be the General Department Administration promulgated by the Ministry of Environment dated 24 June 2008.

resources are used in an efficient manner for supporting a sustainable and equitable socio-economic development for all Cambodian citizens.

Livelihoods of local people changed with the arrival of this new resources management system. Men and women have been affected in different ways due to their needs and women as argued earlier, are primarily affected by this situation. However, since 1996 Cambodia's national policy for women was adopted to provide guidelines to ensure the integration of women into all sectors of development and to promote gender equity. The Ministry of Women's and Veteran's affairs (MWVA) has a mandate to influence and guide the line ministries and lower level administration units to mainstream gender (MWVA, 2004). Therefore, women's important role and status have been increasingly recognized and integrated into other national policies such as the Second Social and Economic Development Plan (SEDP), the National Poverty Reduction Strategy (NPRS) etc. which aim to increase women participation, empowerment and challenge poverty reduction in the country. Women then have been taking into account by the development processes and managements including natural resources management as well.

1.2 Statement of the problem

The new movement in the management of natural resources management; namely community-based natural management or a participatory management approach has emerged across Cambodia including Tonle Sap region where poor people heavily rely on natural resources. CBNRM is seen as an important strategy to improve natural resource management and to increase rural economic development, stressing that resources management interventions need to focus on the role natural resources play in the livelihoods of people who reside alongside natural resources.

The change in management approach on natural resources requires a new administrative control that modifies the role of the government from being in complete control over natural resources to a system that focuses on facilitating the involvement of relevant stakeholders especially the participation of local community. However, one of the key problems is the unclear and overlapping areas of responsibilities of natural resources management of institutions and organizations

with relevance to CBNRM (Ratha, 2005). It leads to concerns whether local people have really gained benefits from the new management strategies. It also remained uncertain that whether CBNRM can secure community livelihoods and maintains equal rights of resource users.

With regards to the community protected area's present situation, there has been no attempt to examine the advantages and disadvantages communities, particularly women, receive from the change in system of natural resource management in Tonle Sap. It is also not known yet whether women reap benefits from their involvement in community activities, which aim to improve their quality of lives. Moreover, few researches have studied women and community based resources management in this area. Although, generally, women are engaged more and participate in a wider range of income-generating activities than men, they have less control over the benefits of productive resources (GAD/C and FAO, 1999 cited in MWVA, 2004). Male control remains in practices and women's roles have always been overlooked even it has been recognized that natural resources processing is an activity often done by woman since men migrate to work in urban areas.

Thus, gender roles and their responsibilities are complex and changing. The relationships between women and men are under pressure of social movements and at the same time traditional gender roles, represented in the Chbap Srey³ which describes women's duties; proper behavior towards their family and husband. The two trends are integrated and made women to undertake a wide variety of tasks but they are frequently unvalued from the families and community. It is an opportunity to examine the changes in livelihoods of a natural resources dependent people in a gendered perspective within the context of changing resources management system with a special focus on a community-protected area in Tonle Sap.

1.3 Objectives of Research

The objectives of the study are:

1- To investigate the implementation of CBRNM at the community level;

³ Be translated from Khmer "code of women"

- 2- To determine how women's and men's livelihoods activities changed under CBNRM;
- 3- To examine whether CBNRM leads to change in male and female roles and gender relationships within the community.

1.4 Research question

Can CBNRM help better secure livelihood and lead to equitable gender roles?

1.5 Research Methodology

The research uses data from both of primary and secondary sources. The primary data are derived from field research by using the case study method while documentary research are relied on books, research documents and reports in order to understand the concepts of CBNRM and the situation of community livelihood in gendered perspective. Field data was conducted in July 2008. Interviews were made up in Khmer language and then translated the result into English. A tape recorder was used with the prior consent from the informants.

Field work engaged several methods including a set of questionnaires with indepth interview with the selection of household cases based on their occupations, semi-structure interview with the key informants such as head of village, community members, teachers, and government officers, as well as staff of project working in this area, and participant observation which give a more accurate scope of how people cope in everyday life.

13 families out of 270 households in the community were selected. In this respect, semi-structured interviews through a written list of questions were conducted to one member of each 13 households and as the result 7 men and 6 women were chosen to make the interview. The main point of this data collection focused on general picture of the social, economic and women and men's status in the community, the perception of respondents towards their livelihood conditions under the community based natural resources management and especially the livelihood generating activities of the family.

The employment activities of above 13 households were categorized into 5 main types in which fishing activities remained the first/primary activities undertake by all households. However, it was surprised that most of the interviewed people's family performed more than one supplementary occupation at the same time. It was also noticed that people usually chose to do the job/occupation that goes along with each other, for instance; farming and crops cultivation, fish cage and animal rearing etc. The types of livelihood activities and the number of families were:

- 5 families do fishing, farming, and crops cultivation
- 2 families do fishing and small business at home (whole day)
- 1 families does fishing, and small business at home (haft day)
- 3 families do fishing, fish cage and animal rearing
- 2 families do fishing, fish cage, animal rearing and small business

One family from each type of household occupation was selected for case studies which were conducted through in-depth interview both of husband and wife. These focused on the actions that households assume to maintain their everyday livelihood such as main income, alternative income, education, history and the way they use resources. It can draw the roles of men and women in term of family managing in reality especially the social and economic conditions of the community in more detail.

Meanwhile, semi structured interviews were also conducted with selected key informants including head of village, community committee member; teacher; government officers from local, provincial and national level and project staff working in Tonle Sap area. Data collection was emphasized on the history of the village, gender awareness and the dynamics of CBNRM therein. It used in order to get the background of the area, the way of life of people in the community and the roles of men and women, such as work pattern, the responsibility of men and women in family, the rights of access, use and control over resources.

Moreover, participant observation was also used during data collection period. This method aims to understand the overall context, the interaction between men and women, their social relations in community as well as outside. Participating in villages everyday gives a more accurate scope of how their cope with livelihood

hardship, the roles, and responsibilities of men and women in the household, social relations and so on. In addition, valuable information is obtained from listening to their narratives and stories. This is very useful in order to compare between the past and present, and among different people's perception.

Table 1.1 Total number of target informants

Targets informants	Numbers of Respondents	Data collection methods
Individual interview	13 people (7 men, 6 women)	Semi-structured interviews
Household cases of	5 people from selected	Households case studies
different occupations	households	selected from initial
		households
Representative from		Semi-structured interviews
-Ranger	1	
-Head of village	0 1	
-Teacher	1	
-Government officers	2	
Total	23 people	

Secondary data was collected from various agencies and different sources such as the reports from provincial and local community at research site, reports and archived documents from Cambodia Ministry of Environment, research documents from CBNRM-LI, Cambodia as well as reports from CDRI, Tonle Sap Environmental Management Project and Tonle Sap Conservation Project etc. In addition, relevant journals, articles and websites related to gender and livelihoods have also been included.

1.6 Scope and limitation

The research attempts to examine and identify the overall impacts of natural resources management system on gender roles and the livelihood of men and women in everyday life. It was important that livelihoods of women and men were required to be examined through gender relations such as power relation, gendered access, and

control and manage resources and capital. The research placed special emphasis on the prospective outcomes of CBNRM towards the sustainability of women's and men's livelihood as well as their roles within the community.

The study is targeted at the Toul Neang Sav Community Protected Area in Stung Senn Core area, stretching along the Stung Sen River in Toul Neang Sav village, Phat Sanday commune, Kampong Thom province. There were some limitations in this research. The length of time for research was short and most respondent residents are disparateness that requires more times in travelling. Most of the villagers were busy with fishing activities, the main source of income for daily survival, and other supplementary jobs. Moreover, there was the election campaign during data collection and some people in community were engaged in the campaign. Apart from these, means of transportation is very limited to reach to the target area. Accessibility to community is only water way. Transportation cost is high.

Furthermore, gender norms are new and usual questions as gender inequality is hidden by social norms that traditionally allocate role and responsibility for women and men. In addition, some respondents did not feel free to answer the questions and provide in-depth information about household situation especially family's income.

1.7 Significance of Research

The findings of research are expected to be useful and informative in taking necessary action to improve the overall goal of community based natural resources management in Cambodia. Thus, the outcome of this research will contribute to researchers, NGOs, donor agencies who are working in community based management and would like to support the improvement of community livelihood and gender mainstreaming.

CHAPTER 2

LITERATURE REVIEW

2.1 Gender

The concept of gender has been in use to describe a social identity formed around biological males and females. It is an important component of individual identity, the sense of belonging to one sex, group of people or nationality (Jackson & Pearson 1998, as cited by Siobhan G. et al, 1999: 17). Gender is different from sex, sex refer to natural biology and can not be changed, where gender refers to the socially determined personal and psychological characteristics associated with being male or female and it can be changed according to social norms, practices and conception (Stephanie, 1987: introduction). It defines as the socially acquired notions of masculinity and femininity by which women and men are identified (Momsen, 2004: 2).

Cambodia Ministry of Women's Affairs (2006: 6) refers gender to roles, attitudes and values assigned by culture and society to women and men. Gender describes the characteristic of women and men that are constructed by society rather defined by biological. It is learned attitude in which people are born female or men but learn to be girls and boys who grow to be men and women. However, gender is a widely used and often misunderstood term and sometimes integrated with sex or used to refer only to women.

2.2 Gender relations

Gender relations refer to the social relationship between men and women along with relations of class, ethnicity, nationality and religion. The concept of gender relations is constituted in terms of power and dominance that structure the life chances of men and women (MoWA, 2006). Therefore, gender relations can be seen as the power relations between men and women who are assigned different roles and relations on the basic of social context.

Gender, gender relations, and other social relations, however; can be changed alongside with other developments in society. Socioeconomic development is the most significant factor leading to change in gender relations (Ngan & Chow, 2002: 50). Thus, gender and other social relations change and can be changed alongside other developments in society.

2.3 Gender roles

Gender roles belong to those activities that are considered by a given culture to be appropriate to a woman or a man (Coroline, Annika & Bernice, 1997: 4). Gender role refers to the household tasks and types of employment socially assigned to women and men. This role can not be fixed and globally consistent and indeed become more flexible with the change brought about by economic development.

Therefore, women are agents of change and the role and status of women are central to change in population and development (Momsen, 1991, 2004). Any development strategy which neglects the need for enhancing the role of women cannot lead to a comprehensive socio-economic development as the role of women is a dynamic factor and a valuable asset for the overall process of development (ICPE, 1986).

However, under modernization, livelihood needs and education has led to changes in traditional perspectives towards women who are now considered as the partners or consultant rather than the previous status. Women and men both are expected to fulfill and undertake different activities and produce obvious services and goods, though; they are mutually dependent on each other in a society.

2.4 Gender situation in Cambodia

In Cambodia, gender and other social relations has been significantly changed over time alongside with other developments in society and the globe. Historically, Khmer women had a high status in ancient society so called "matriarchy" society linkage with the Khmer lexicology used the word "mé" to refer to a women, and also to the head of the chief. However, the effects of thirty years of war and civil violence

have left a devastating mark on the country's men and women. Women had to ensure the survival of the family because most of the men had been killed at that period and the form of the family changed from nuclear to extended household as women had to take in or look after their siblings, aunts, and particularly widows and children.

The sexual imbalance meant that women's labor was greatly needed, and women engaged in many kinds of work that they had not done before. Though, women are usually considered to be low status relative to men. They are always viewed as an objects and particular are taught since primary schooling age (*chbab srey*) to accept the role as housewife, mother or daughter and retained close ties and support from the family, in which represented gender inequalities and discrimination. The gender analysis by the Legal Support for Children and Women (LSCW) in Cambodia (2005: 21) defines Cambodian women's gender roles and their behavior greatly affects the status of their husbands, sons, and fathers and the ranking of men within the society has a direct correlation with the image projected by the women in his life and women have the power to upset the entire status structure through their behavior. Thus, housewifization have influenced and pressured to Cambodian's girls and women presenting them in the public in which women are very difficult to escape from the traditional and cultural perspectives that rooted many years in people's images.

By the way, with the process of development gender in Cambodia is undergoing tremendous changes. Reforming institutions and policies to establish equal rights and opportunities for women and men is a crucial element in promoting gender equality. The "Secretariat of State for Women's Affairs" was established after the first general election in 1993 to facilitate all women's associations at the national level, provincial level and district level. It then became the "Ministry of Women's Affairs" in 1998 and was renamed the "Ministry of Women's and Veterans' Affairs in 1999. Remarkably, After the Paris Peace Agreements, Cambodia saw a rapid growth in non-governmental organizations, including women's organizations and now in Cambodia there are many women's NGOs that try to advocate for women's rights.

In align with the institutions reformed, the government has strengthened the existing legal frameworks for gender issues and assigned new laws, policies as well as

strategies in order to eliminate gender disparities in Cambodia society. A number of laws promoting women's interest and equal rights have been passed are as follow:

Year	National Policy	Gender Policy
1992		Convention on the Elimination of
		All Forms of Discriminations
		against Women
1993	Constitutional Law	Law on Equal rights between men
		and women
1994	National Plan for Rehabilitation &	
	Development in Cambodia	
	(NPRD)	
1996	First Socio-Economic	First Five Year Strategy Plan of
	Development Plan, 1996-2000	MoWVA "Neary Rathanak"
	(SEDP I)	
1997		Labor Law
2003	Second Socio-Economic	
	Development Plan, (SEDP II)	
	National Poverty Reduction Plan	
	(NPRS)	
	Cambodia Millennium	
	Development Goals	
2004	Rectangular Strategy	Second Five Year Strategy Plan of
		MoWVA "Neary Rathanak"
2005		Law on Domestic Violence
2006	National Strategy for	
9	Development Plan (NSDP)	11/18/19/8

(Gender Indicator and Statistic in Cambodia, 2007)

Many organizations, institutions and government agencies have adopted guidelines and gender mainstreaming policy to ensure the integration of women into its development plan and action in order to align with the national policy for women. There is now a growing recognition of the importance of taking a gendered view of natural resource management, for instance; the gender mainstreaming strategy has

been preparing by the Fisheries Administration (FiA), Ministry of Agriculture, Forestry and Fisheries (MAFF) to respond with women issues and to enhance a better gender role in the fisheries sector – GMPSFS. The strategy is inline with the MAFF's gender mainstreaming policy and strategy in agriculture (GMPSA) in which fisheries is considered as one of the sub sectors of the MAFF "Enhancement of gender equality in the agriculture sector through active cooperation of both women and men for the opportunity to contribute and benefit equally from the activities off all sub-sectors in the agriculture sector" (FiA, 2007).

2.5 Livelihood concepts

2.5.1 Definitions of Livelihood

Livelihood is a widely used concept in almost the entire contemporary writings on poverty reduction and sustainable development and it generally defined as a means of securing the necessities of life. A livelihood in this aspect must comprise of capacities, assets and activities required for a means of living. It is shaped by various levels and forces of vulnerability and the associated factors referred to as trends, shocks and stresses⁴ (Department of International Development [DFID], 2000).

Mekong River Commission (MRC) states the word "livelihood" means "occupation" or "employment" that is a way of making a living or a mean of serving the necessities of life (Mekong Fisheries Management Recommendation No 5, 2006: 3).

More recently the meaning of the term has expanded to include broader systems that encompass social, economic and other attributes. Within these livelihoods systems or livelihood assets, various factors have an effect on the strength, resilience and vulnerability of people's way of life (Figure 2.1). Those may be their assets, work and other culture activities and factors that help people get access to

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⁴ *Trends* include population rates, demographics, governance, and political regimes. *Shocks* are often intense and unexpected such as floods, health epidemics and violent conflict while *Stresses* are longer term, such as drought, seasonality pressures and prices.

these assets and activities. By the way, people's livelihoods are sustainable when they can maintain or enhance their assets and cope with overcome internal and external stress.

The study of livelihood is appearing as a new approach in rural development agenda among international development organizations and practitioners. Sustainable livelihood approach, which emerged in the 1990s, often simply referred to as a livelihoods approach, the way of thinking about the objectives, scope, and priorities for development. It is an attempt to counter conventional development rhetoric by putting people at the centre of development (DFID, 2000).

Some international communities, NGOs and development projects have conducted their own livelihood strategy/approach guideline or principle according to their relevant tasks and target groups. For instance, Mekong River Commission introduced its principle "Sustainable livelihood approach" to help ensure the programs and strategies to alleviate poverty incorporate the complex interrelationships between natural resources and other assets. The approach is becoming increasing common as the new way of MRC looking at fisheries management applied by Cambodia, Laos, Thailand and Vietnam.

Besides MRC and DFID, the approach is adopted by various agencies such as UNDP, Oxfarm, and CARE in their poverty alleviation programs with modification. Basic principle of the approach represents the holistic and realistic view of people centered and designed to be participation which has the vision of sustainability.

Thus, sustainable livelihood is broad used as it aims to increase the sustainability of poor people's livelihood by focusing on some development activities such as social, economical, institutional and environmental activities. The process is required to put the people at the centre in planning, implementing and managing. The sustainable livelihood approach is that people pursue a range of livelihood outcomes by which they hope to improve or increase their livelihood assets and to reduce their vulnerability. The five types of assets that form the core of livelihood resources range from financial, human, natural, physical, to social capital.

Categories of Capital assets

1. Human Capital

The skills, knowledge, experience, ability to labor, and good physical health that enable people to pursue different livelihood strategies to achieve livelihood outcomes.

2. Social Capital

The relationships or active connections among people (the trust, mutual understanding, and shared values and behaviors that bind the members of human networks and communities and make cooperative action possible).

3. Natural Capital

The natural stocks of both renewable and non renewable from which livelihoods are derived (e.g. land, water, wildlife, biodiversity etc.). It includes environmental services as well.

4. Physical Capital

The basic infrastructure (affordable transportation, secure shelter and buildings, adequate water supply and sanitation, clean affordable energy, and access to information) and producer goods and equipments needed to support livelihoods.

5. Financial Capital

The financial resources people use to achieve livelihood outcomes. These can include savings, regular income or pensions, loans and access to credit, and liquid assets like land, livestock and jewelers.

(ADB, 2004, CBNRM-LI, 2005)



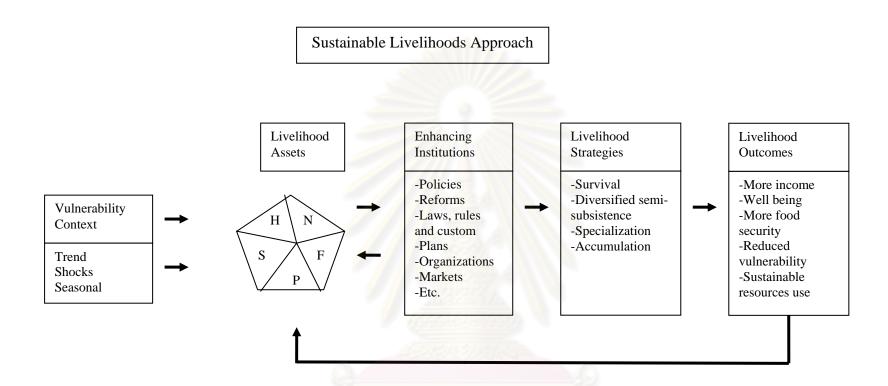


Figure 2.1 Interrelated components of sustainable livelihoods approach

Source: The Handbook of Mekong Fisheries Management Recommendation No. 5 by Mekong River Commission, 2006: 4.

All the five assets constitute the actual building blocks for livelihoods. A livelihood is sustainable when it can cope with and recover from stresses and shocks and maintain or enhance its capabilities and assets both now and in the future, while not undermining the natural resource base. In a recent extension, political capital has also been added as one of possible assets to conceive a sustainable livelihood. Anyhow, livelihood is the main point of interaction between communities and natural resources while sustainable livelihoods play an importance role to ensure the economic and food security for people. To maintain sustainable livelihood is to maintain environment and surrounded resources. However, all the assets in Cambodia are not so strong. Human capital was seriously affected by the extermination of a generation of leaders. Social capital has been severely diminished by the war and democratic processes that have recently been introduced. Natural capital is under growing of human exploitation and access to financial capital is restricted.

2.5.2 Gendered Livelihood strategies

Within today's international commitment of the Millennium Development Goals, the sustainable livelihood strategies as developed by DFID has become the most prominent framework that attempts to capture factors influence people's livelihoods and poverty. The strategies take into account that women and men are the centre of attention for effective poverty reduction. Gendered livelihood strategies are important aspects of economic and development in worldwide. IASC Gender handbook has described some factors that lead to different coping activities in using assets and income among women and men. Women's exclusion from many formal economic activities, discrimination against women and the gender division of labor, have contributed to the involvement of women in casual or unregulated labor as means of coping with economic hardship (Ann M, 1998). Moreover, different skill sets, education, needs, vulnerabilities, responsibilities and different resources available will also turn them to different strategies for survival.

Gender relations and gender roles which designed women and men in different tasks and works perform is the big contributor to the livelihood strategies adaptation. Women and men play different social and economic roles in family and community,

thus their problems and needs differ, obstacles and opportunities that they face also differ meaning that the way to maintain their lives is also different.

Agarwal in CPD Dialogue report No. 30 (2000) said that for women much more than men, livelihoods will be linked to access to resources. While male workers have been moving to work outside the community; women have remained engaged largely in household work and responsibilities. In Southeast Asia, women are engaged in a wide variety of income generating activities in addition to domestic work. The range of tasks women response is increasing and sometime leads to sell labor and migrate to work in non-traditional jobs such as garment manufacturing and service (Gerald, 2007). However, the occupation in globalization world provides macroresources for men and only micro-credit and micro-enterprises for women that still constrain the ability for women to deal with poverty and gender inequality.

Livelihood strategies are shaped by a broad range of economic, political, and social factors, and vary markedly between economic necessity on the one hand and choice such as a way to further investment, savings and accumulation on the other (Kabeer and Ang, 2000 quoted by Dolan, 2002). Anyway, while livelihood options are mediated by a number of external factors, they are also conditioned by the composition and internal dynamics of households. Livelihood choices can be compromised by gender differences in reproductive responsibilities and access to productive resources (land, capital, labor), as well as gender biases in marketing systems and infrastructure. Female household heads, in particular, face distinct constraints based on their unique position in the household including their often sole responsibility for income generation and reproductive work, and higher dependency burden than their male-headed counterparts.

However, there are gendered constraints to livelihood adaptation which include cultural/religious, the social rules and norms that regulate property rights, inheritance practices and knowledge of women. All these factors often directly determine women's capacity to access and mobilize resources and hence the types of livelihood opportunities that are opened to them. The ways through which women and men seek and sustain a livelihood are different; as gender roles are different, so are the livelihoods gendered activities (Lahiri-Dutt, 2003). Understanding the livelihood

strategies of women as well as management of natural resources at their disposal are of critical importance for making developmental interventions successful and equally benefits both men and women.

2.6 Community Based Natural Resources Management

2.6.1 CBNRM concepts

Community based natural resources refer to the local people/community whose living are relying mostly on natural resources. "CBNRM is people-centered and community focused" (Van An, 2006). Hence, the concept of CBNRM is related to a variety of terms, including participatory, community, community-based, collaborative, joint and popular natural resource management. These concepts are often used interchangeably, but may also be used with the intention to emphasize specific characteristics of related approaches. Thus, the concept of CBNRM tends to be associated with approaches where the focal unit for joint natural resource management is the local community. Sometimes, it has also been applied to designate approaches where local communities play a central but not exclusive role in natural resource management (Rotha et al. 2005 quoted in Technical note 2007, Danida).

However, CBNRM in practice is mostly about ways in which the state can share rights and responsibilities regarding natural resources with local communities. Twyman (2000), links CBNRM and "participatory frameworks" and refer to CBNRM as the way that local people have a greater interest in the sustainable use of natural resources around them. Thus, there is now increasing recognition of community involvement and the rights of poor and marginalized groups in sustainable management of natural resources as many international development believe that effective resource management must be linked with issues of equitable access to natural resources, the promotion of sustainable livelihoods and the alleviation of poverty through participatory and empowering process of development.

Accordingly, both Twyman and Hansen suggest that to be successful CBNRM require changes at three different levels of society which are the national level, the local level and the link between those two, the intermediate level. At the national

level, the main issue is how to support policy processes and legal frameworks for CBNRM while at the intermediate level, the key concern is how to institutionalize CBNRM either through local governments under a devolution process or through deconcentration of line agencies, which delegate authority to local communities. At the same time, at the local level the principal question is how to organize the collaboration between social actors and their relationship to the natural resource (Figure 2.2).

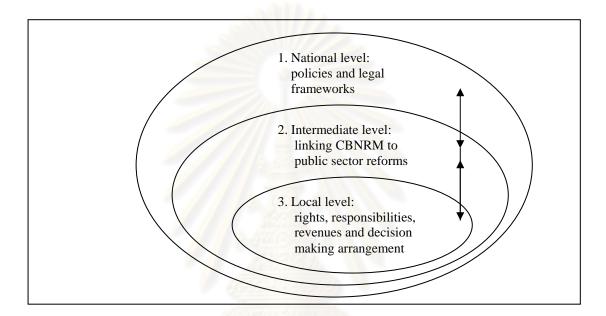


Figure 2.2 CBNRM and its linkages to overall development objectives

Sources: From Technical Note 2007, Community Based Natural Resources

Management by Ministry of Foreign Affairs of Denmark.

By the way, CBNRM defines as the management of natural resources under a detailed plan developed and agreed to by all concerned stakeholders (USAID as quoted by CBNRM-LI, 2005). The approach is community based in that the communities managing the resources have the legal rights, the local institutions, and the economic incentives to take substantial responsibility for sustained use of these resources. Under the natural resource management plan, communities become the primary implementers, assisted and monitored by technical services from the government or development agencies.

Since natural resource is one element of livelihood assets, livelihoods is more related to resources management. It draws from the resources accessed and the

activities undertaken in order to live. Livelihoods are now recognizing the diversity of activities in which people are involved and the livelihood opportunities open to people to make up a living (Twyman, 2000). At the same time, natural resource livelihoods are based on complex resource relationships which shape and mould people's access to, use of, and control over resources. CBNRM has had favorable social and environmental impacts. It is used as vehicle for poverty reduction by helping both local communities and governments to better understand their responsibilities for using and preserving natural resources. Therefore, CBNRM and livelihoods are the issues of sustainability, rights and choice. It is about taking local communities as a point of departure and empowering them, and create a social movement around managing local natural resources aiming at sustainable livelihoods (Soeftestad, 2001).

2.6.2 The roles of gender in CBNRM

Women and men play important in daily activities, but in different roles. Women's roles and participation in natural resources use, decision making and implementation have been under valuated. The lack of women's participation in natural resources management programs is caused by the absence or lack of understanding of the social and political conditions which the women compelled to participate in (Resurreccion, 2006: 435).

Natural resources provide food and a wide range of other products such as fuel, timber, medicines, building material, etc., to people. Moreover, natural resources provide services including watersheds, carbon sequestration and soil fertility on which all human activity depends and as the result the roles of women in natural resources are to manage of water, agriculture, livestock, forestry and fisheries while the men's role are progressively off-farm employment in the urban centers (Upadhyay, 2005). Women carry out essential tasks in agricultural production and marketing that have direct or indirect impacts on natural resources making them possess extensive knowledge about the use and conservation of natural resource.

The roles of gender have changed after the growing of a WID (Women in Development) approach to development projects. This concept played an important role in revealing the difference in the responsibilities, activities and authorities of men

and women in relation to the use and management of natural resources. It emphasized the importance of women's roles as environmental resources related to the decline of resources and the need to develop sustainable natural resources.

Moreover, gender in the context of development during 1990s has recognized and linked women to the environment by focusing women's role in environmental program through "Gender and the Environment" approach of development. Since then women's participation and involvement in natural resource management continue to be regarded as a core element to the sustainable use and management of resource (Resurreccion, 2006). It is partly due to the assumptions of women's interconnectedness with nature especially the daily activities which make women closer to nature than men. And as the result, changing patterns of institutional control over natural resources can affect women's livelihoods and lead to the change of women's role and their activities.

Generally, in community based natural resources management, women are still excluded. By Agarwal (1997, 2001 cited in Resurreccion, 2006), this exclusion happened due to the traditional practices and established norms of gendered exclusion as well as the lack of understanding of the social and political conditions. Therefore, women are unable to meaningfully and decisively participate in resources management because of the unequal gender relations that assigns them with multiple female tasks.

According to Clarke (1999), women and men play different social and economic roles in natural resource conservation, in the family and in the management. Their problems and needs differ thus the obstacles and opportunities they face also differ. Too often, women are excluded from community development activities because their economic roles and the obstacles to their participation are overlooked. In contrast, women in many contexts are more concerned than men about preserving natural resources for their children's future but what also distinguishes women and men in many places is the fact that women's work is unrecognized and undervalued in economic terms.

However, when natural resources are important to people, their community and family's life and livelihood, equity participation among men and women is very crucial need. Differences in the roles of women and men in rural communities mean that they have quite different perspectives on resources management leading to various livelihoods strategies (Oxfam, 2000). Gender and gender equity in communities based resources management are often the challenging issues in social context. Management policy toward resources may have direct and indirect impacts on environment as well as natural resources users. These effects may be different for men and women because these two gender groups are involved in different activities formed for their livelihoods. Hence, it is believed that the only way for women to endure a fair share of the benefits from resources is to have an equal say and influence in decision making concerning resources management and utilization (Ykhanbai & Bulgan, 2006).

2.6.3 CBNRM in Cambodia

Cambodia's natural resources play a significant role in rural people. Most of them rely heavily on natural resources to support their livelihoods. Some are subsisted on farm; some are depended on fish and other aquatic resources, as well as a range of forest products. Natural resources provide a foundation for food security, income, and employment. When there is a growing of population and resources scarity, there is a need for local people to work together to assure that natural resources are being used sustainably. Then the opportunity for CBNRM approaches would play an important function in shaping the future social, ecological and economic well-being of the people.

Thus, in the context of Cambodia, CBNRM is defined as:

"A diversity of co-management approaches that strive to empower local communities to participate actively in the conservation and sustainable management of natural resources" (Toby, 2005: 28)

CBNRM can be an effective way of managing natural resources, that is – when local community moves from the statement of using resources to the statement of managing resources in collaborating with government and sometimes with assisting

or facilitating by some organizations. Yet, in Cambodia this decentralization of authority is still slow in progress due to the historical, political situation of country and limitation of knowledgeable people and experiences regarding to the issue. These factors lead CBNRM initiatives tend to be more on the government controlled side of the co-management. However, it is a growing realization that CBNRM would be the success way helps to reduce poverty and to improve rural livelihoods. Also, it is the mean to reach community empowerment goals and ecosystem conservation goal.

CBNRM, however; has been interpreted in various ways by different organizations, institutions and countries. In Cambodia is used as an umbrella term for local resources management concept or participatory management approach. It is frequently seen in the form of community forestry, community fisheries, community based eco-tourism, community protected area, community based costal resources management, and participatory land use planning. Hence, the various definitions, terms and usage are depended on the context and location to be practiced.

There have been a number of governmental laws, policies, plans, programs and strategies that have been developed and implemented to varying degree of importance of CBNRM in Cambodia. Currents legal instruments for CBNRM are as follows:

- 1- Constitution (1993)
- 2- Royal Degree on the creation and designation of protected areas (1993)
- 3- Law on Environmental Protection and Natural Resources (1996)
- 4- Law on Commune Administration (2001)
- 5- Land Law (2001)
- 6- Forest Law (2002)
- 7- Community Forestry Sub-degree (2003)
- 8- Fisheries Law (2006)
- 9- Water Resources Management Law (2007)
- 10- Protected Area Law (2008)

In the national policy, there are also a number of policies, strategies and programs which includes:

1- Governmental policy of Decentralization (1996)

- 2- National Environmental Action Plan (1998-2002)
- 3- Socio-Economic Development Plan SEDP II (2001-2005)
- 4- National Biodiversity Strategy and Action Plan (2002)
- 5- National forest policy (2002)
- 6- National Poverty reduction Strategy NPRS (2003-2005)
- 7- Rectangular Strategy (2004-2008)
- 8- Core Area Management Plan (2008-2012)
- 9- Millennium Development Goals

However, this section would like to discuss only the legal instruments and policies related to CBRNM, which is used under the concepts of community protected area, specifically the legacy frameworks supporting the Ministry of Environment in managing sustainable resources.

Law on Environmental Protection and Natural Resources Management

The law provides the general guideline for the protection of the country's natural resources and environment that covers protected area which fall under the management responsibilities of the Ministry of Environment. Two main objectives of the law regarding to natural resources management states:

"...to ensure the rational and sustainable conservation, development, management, and use of the natural resources of the Kingdom of Cambodia ...to encourage and enable the public to participate in environmental protection and natural resources management"

(Environmental Protection and Natural Resources Management Law, 1996)

The law did not give specific rules of NRM, however; the objective of the law certainly links to the concepts of CBNRM as CBNRM creates opportunities and a forum for relevant stakeholders to possess and share responsibility in the use of natural resources and management.

Protected Area Law

The creation and proclamation on Protected Area Law has just been approved by His Royal Excellency King Seiha Mony on Royal Degree of February 2008. The law plays as the legal instrument for protection and management of natural resources

in the Protected Area for sustainable use. According to the law, the management of PAs has to ensure that local community, ethnic, and public have fully rights to participate in decision making regarding to the management and conservation of resources.

Article 22 – State recognizes and ensures the rights to access to resources in the traditional way of people who lives in the vanity of protected area....The ministry of Environment has rights to deliver some parts of protected area to local community in favor of the establishment of community protected area.

(Protected Area Law, 2008)

The management of PA is under direct control of GDANCP/MoE. Any land titles and ownership must be agreed upon by MoE. The PA law clarifies the concrete guidelines for protection and conservation of natural resources particularly endangered species and biodiversity. It also provides instruction of how the community can sustainably benefit from these resources.

Core Area Management Plan

This management plan was prepared to implement in according with the protected area law. The role of management plan is to guide the managers of a protected area towards a vision for the site in a structured way. It is also being as the guideline for all stakeholders such as resources users, resources managers, researchers, organizations, institutions, government staffs and those who involve in the area to contribute to the conservation of biodiversity with its sustainable use and for the benefits of the people. "Community development" is one of the main management programs formulated in the management plan which supported the livelihood of the local. Its 'goal and objective are stated:

"Goal - increase community involvement and support for biodiversity conservation.

Objective – strengthen the operation of community institutions involved in conservation, ensure that local communities share in the benefits of conservation and management and sustainable utilization of resources, improve the living conditions of people that are affected by management,

create understanding and awareness, and evaluate the impact and effectiveness of community awareness, conservation, livelihoods, and other natural resources management."

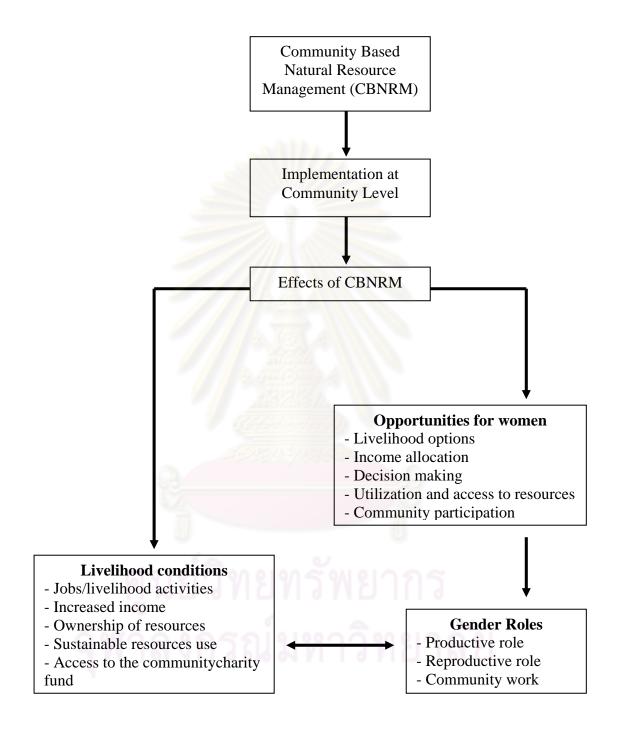
(Core Area Management Plan 2008-2012, 2007)

2.7 Conceptual Framework

The above literature review provides the background to the debates over gender issues in the development process and the changes in livelihood strategies in a natural resources dependent people from a gender perspective within the context of changing system in resources management. It suggests that women are taking good care of the environment and family, but have been victimized by development. The concept of gender relations and gender roles show the difference of roles, responsibilities and activities that men and women perform in society. Moreover, the concept of livelihood explains the diversified means of local people's living in order to meet their basic needs. It explores the ways and some influence factors that contribute to people livelihood sustainability. It is closely linked to the notion of community based natural resources management, the new power decentralization from the central government to local bodies to control their own resources.

Community participation in common resources management is important because when participation is taking place, it can facilitate the process whereby concerns parties are able to join together and given the opportunity to determine their specific problems, and needs and identify the strategies to meet the needs and tackle the problems. However, community protected area in Cambodia is challenged regarding to economic development. Many income generating activities take place including the introduction of commercialization; privatization, the improvement of tourism, as well as hydropower development etc. This has led to a loss of product and value in resources. Thus, livelihoods of local people are changed and one group that has been deeply influenced by the state-led development approach on the management of natural resources is women. Thus, the study looks at the impacts of this movement towards gender's roles which lead them to struggle to cope with new conditions and challenges as well as the formed activities of livelihood of the dependent natural resources communities.

Figure 2.3 Conceptual Framework of linking CBNRM to Livelihood and Gender



CHAPTER 3

PROFILE OF STUDY AREA AND CASE STUDY HOUSEHOLDS

Toul Neang Sav is one of the community protected area in Tonle Sap Lake. It comprised of 1,395ha, which some part situated in the Stung Sen core area and the rest laid in Tonle Sap multiple use area. The community has been developed and voluntary initiated by the people in Toul Neang Sav village. It located at the top edge of the Stung Sen core area which the North adjacent with Boeung Chhoeu Chab, the South is 100 meters far from Stung Sen River mouth, the East border with Ta Noeum dike, and the West end with Boeung Chan Cror Keng. This chapter will provide the general description of historical and livelihoods of the Toul Neang Sav CPA's members as well as the works done by women and men in daily activities in community.

3.1 Overview of Stung Sen Core Area

3.1.1 Physical characteristics

In Cambodia, Biosphere Reserve is considered as country's Protected Area⁵ (Royal Decree on the Establishment and Management of Protected Area dated 01 November 1993). Stung Sen Core area knows as the richest natural resource area in Tonle Sap Lake. It was created under the Royal Decree on the Establishment and Management of Tonle Sap Biosphere Reserve dated 10 April 2001. The Ministry of Environment on behalf of the Royal government of Cambodia was assigned as the authority responsible for the preparation of protection and conservation plans for the country's protected areas as well as the core area.

⁵ The Protected Area Law (dated February 15, 2008), article 3, is divided Cambodia's Protected Area into eight zoning types.

¹⁻ National Park

²⁻ Wildlife Sanctuary

³⁻ Landscape area

⁴⁻ Multiple uses area

⁵⁻ Ramsar site

⁶⁻ Core Area of Biosphere reserve

⁷⁻ Natural Heritage site

⁸⁻ Marine national park

The Stung Sen Core area assemblages on the area of 6,355 ha, located at the Southeastern end of Tonle Sap Lake; in Phat Sanday commune, Kampong Svay district, Kampong Thom province; along the Stung Sen River which is part of the unique of Tonle Sap Lake ecosystem. It was established to protect unique evergreen riverine forests and associated vegetation. Almost the whole year, from October to June-July, the water from Tonle Sap Lake flows into the Mekong River making incrementally shallower in depth and smaller in area, a maximum of approximately 1 m and 2,500 km², respectively. However, when the Mekong floodwaters peak in midyear, the Tonle Sap River reverses its flow increasing its area to an approximate 12,000 km² and maximum depths to an approximate 10 m. Thus, during the low water season, the Stung Sen Core Area is largely dry with water remaining only in scattered pools and completely flooded during the high water season (MoE, 2007).

Entry into Stung Sen Core area is prohibited except by authorized officials of the GDANCP "rangers" who responsible for protection and conservation for the area and the Scientific researchers who conducting a study in purpose of defense and conservation of natural resources, biodiversity and environment with obtaining advance permission from GDANCP, MoE. Settlements in the vicinity of this core area are limited to villages along the Stung Sen River, comprising Phat Sanday, Kampong Chamlong, Neang Sav, Toul Neang Sav and Psaot sub-village, and Koh Tapov.

3.1.2 Socio-economic situation

Settlements Stung Sen Core Area is limited. Villages located along the Stung Rives comprise of Phat Sanday (159 households), Kampong Chamlong (206 households), Neang Sav (180 households), Toul Neang Sav and Psaot sub village (total 209 households) and Koh Tapov (220 households). Most of residents are living on the floating houses that can move seasonally along the river and lake shore except Neang Sav and Toul Neang Sav which includes some fixed (silted) housing on the land along the Stung Sen River. Almost all the villages in this area are Khmer, however; Koh Tapov village is numerously Vietnamese, controlled over 70 percent of households.

Fishing is the main occupation of the residents with the use of a variety of fishing gears, though legally allowed. The villagers are dependent on fishing activities for both making income and household utilization. Non-Timber Forest Productions (NTFPs) are collected and served as the secondary or supplementary source of income and consumption such as firewood collection for household use and production of dried fish, honey moon collection etc. Some households raise pigs, chickens and crocodiles for income generation while others engage in rice farming and crop planting (lotus, corn, cucumber, water melon etc.) particularly during the dry season.

3.2 Toul Neang Sav Community Protected Area

3.2.1 Historical background

Toul Neang Sav is the poorest village among the other five villages of Phat Sanday commune. Approximately, 95 percent of them are living on the silted housing along the Stung Sen River. They can possess a small plot of land (around 40-60 m) allowed by the local authority (commune committee). However, they do not have legal ownership for the land they cultivate and use. People in this village earn for living by fishing, planting some crops on the land surrounding their houses and trading. Fishing is the primary occupation for the residents. They do it for whole year round. Though, the location of the village provides less beneficial opportunities to the villagers. Some fishing grounds are transformed into land during the dry season. The village is surrounded by the Kompong Thom Fishing Lots No. 2, 3, 7 and the Stung Sen Core Area.

Entry into the territory of fishing lots during the open season of October to May is prohibited and frequently there is conflict between the lot owner's and villagers regarding to access to resources. On the other hand, people also illegally enter into the Core Area where there is the most unique habitats with high richness and abundance of fauna and flora species. However, they are very often caught by the rangers and have to compensate back for the administrative fine.

The local communities initiated to improve their own standard of living and to avoid any conflicts with both lot owner and patroller. They voluntarily agree to

cooperate and participate with each other wish to establish a CPA that they can officially access to and protect the resources in Core Area at the same time. The process is facilitated by the commune authorities and the local environmental officer. They submitted a request letter in writing to establish the CPA within the Stung Sen Core Area to the Ministry of Environment via the GDANCP, attaching a draft map temporary hand map of the area requested.

The government of Cambodia endorses the dedicated efforts of local communities to improve local planning management of natural resources along side with the enhancement of livelihoods for the people. As the result, 502 hectares of the area of the Stung Sen Core Area were released to be used and managed by the people in collaboration with local authorities and the local environmental officers. Though, it took almost 2 years to get the official registration and recognition from the government due to the long administrative process. The Toul Neang Sav CPA is officially acknowledged in 2007 by the government of Cambodia. It is under the direct technical support and facilitate by the GDANCP, Ministry of Environment.

3.2.2 Demography of the community

The local community usually called "the Toul Neang Sav CPA as "The Stung Sen Community Protected Area" due to the location of the community is situated in the Stung Sen Core Area which is approximately 1/3 of the total area 1,395 hectares. The community has been organized by almost all the villagers in Toul Neang Sav village and a few from nearby villages likewise Neang Sav, and Kampong Chamlong. The community members comprise of 349 people including 270 households in which women constitute nearly a haft of the community (173 people). Community members have the same rights to get in and access to the resources in the community. However, none of them are allowed to live and permanently stay in the community site, only for patrolling activities. Seasonally migrants also allow using this resources ground follow by the community regulations. They could stay in the community area within fifteen days. Most of them are primary coming from Stoung, Baray, Kompong Thom, and Chhnuk Trou district (So Sun, personal interview, July 13, 2008).

3.2.3 Current status of natural resources in the area

Flora

The evergreen forest along the Stung Sen River is considered as the most species rich, tall forest which includes a number of rare species and exceptionally large trees in Tonle Sap. The predominant natural vegetation is seasonally flooded freshwater swap or gallery forest which also known as flooded or inundated forest.

Fauna

Flooded or inundated forest stretched for the whole round year limits faunal diversity to the most mobile flood-adapted species. The annual cycle of flooding and dying in the Tonle Sap ecosystem result in a very high level of aquatic productivity which supports a unique fauna community, including one of the most productive freshwater fisheries in the world.

Table 3.1 Natural Resources in the community

Resource type		General characteristic							
	Gallery forest	Located primary along the river bank of the Stung Sen							
Flora		River and extending to the north and west.							
	Short-tree shrub	Comprise dense stands of scrub and scattered emergent							
	lands	trees.							
	Grasslands/Aquatic	Cover extensive areas and subject to annual cycle of							
	herbaceous	flooding and dry season fires.							
	Fish	The Stung Sen River mouth is believed as the nutrient							
	ଗ୍ୟାଥର	and support rich feeding aggregations of fish.							
	Birds	Lower Stung Sen is delineated as Important Bird Area							
	70	which support a breeding ground and provide feeding							
,	วงชา ลง ก	habitat for a variety of water birds.							
Fauna	Reptiles	The Area is probably the single most important							
Fa	7	wetland for reptile conservation in Southeast Asia,							
		supporting significant populations of several							
		threatened species.							
	Amphibians,	They are not particularly diverse and very little is							
	Mammals,	available in the core area but several species are listed							
	Invertebrates	s globally threatened.							

Source: Adapted from Core Area Management Plan 2008-2012, Ministry of Environment, 2007.

3.3 Profile of household respondents

Five households are selected for this study. They all are the members of the Toul Neang Sav CPA, age ranges from 35 to 50. Most of the middle age, around 20-30 years old migrated to seek better jobs in the city. They are no longer interested in fishing which left over generation to generation. However, some are still in burden of the parents. Even some are married; extended family is still maintained due to the traditional practice and particularly the financial issue. All the five families obtain fishing as the main occupation. At least one or two members in family go to catch fish everyday for household consumptions and household expenditures. Members in family mostly work together and do not separate their income. They supplement and complement the jobs of each others and keep the whole income with the household head especially in women hand who response for the money flow of the family. Each household engage in the secondary activities usually during the off season of their primary occupation, to increase their earnings. Sometimes they can earn a lot from the supplementary occupations but these opportunities come only once in a while. Sometimes they also lost their money which has been invested in the secondary livelihoods. It is because of lacking of knowledge and skill regarding to the options they chose. Nature condition is also influence to their livelihoods.

Table 3.2 List of household case studies and their individual background

Case study house	Age	Education	No. of	Primary	Secondary		
holds	20		children	livelihood	Livelihood		
Moeun and Phan	45,	Grade 6, 4	7	Fishing	Crop cultivation,		
ର	38	79/16/18	15 91	ยากร	dry season rice		
	ИΩ	9110	II d IN		farming, small shop		
9)					at home and		
0.000	O 0	ocoin	10000	200010	traditional medicine		
0 1/1	NN	נווזגווז	1M.1.	1 11 2 1 7 1	in the village		
Vort and Hean	37,	Grade 4, 4	5	Fishing	Sale grill banana,		
	39				small karaoke shop		
					at home		
Khhoeun and	50,	Grade 6, 3	9	Fishing	Agriculture and		
Yum	48				seasonal noodle		
					seller		
Chamroeun and	35,	Grade 5, 3	7	Fishing	Livestock and fish		
Yean	40				trading		
Veasna and Pov	Veasna and Pov 41, Grade 9		3	Fishing,	Livestock		
	39			public			
				service			

3.3.1 "Moeun and Phan"

Moeun and Phan originally come from Kompong Thom district, Kompong province. In 1983, they decided to migrate into the Toul Neang Sav village to seek better living condition as farming in the small plot of land in their home town did not provide enough income for survival. At the time they arrived, Moeun started the job as the traditional medicine, the skill that he learned from his grandfather while his wife, Phan was remaining as the farmer on the land provided by the local authority. However, the work they did could not fill daily need for the nine members in family. Moeun has then changed to do fishing along with his neighbor and other villagers. Moeun's wife rarely went fishing with him. She was at farm, did housework and looked after the small children. Thus, Moeun's elder daughter mostly accompanied him to catch fish.

With the rapid population growth as well as the limitation to the resources area, the decreasing availability of fishing ground causes problem in the region. Moeun's family again met the family economic pressure. Open access space in the village just gave Moeun and other households enough for daily diet. It is not leftover for exchanging other consumptions especially during the sickness period. Moeun always tried to get into the fishing lots and the Stung Sen Core Area in order to get more fishes and frequently was caught and fined by the lot's owner and the core area patroller.

Moeun has decided to participate in the Toul Neang Sav CPA regarding to the use of, and access to resources particularly to improve the standard of living. Being the member of the CPA community, Moeun is able to get into the community protected area for fishing and other resources such as herbs and firewood collection without fear. By the way, he has to follow the regulations and other related community laws concerning to the sustainable use of the resources in the area.

Moeun usually goes fishing twice per day, in early morning and in the evening. However, he does not spend much time on fishing like before due to the availability of fish resources in the community area. He has spared times helping his wife in the farm and does some housework while she was running her small grocery

shop at home. Besides rice and crop cultivation, lotus plantation is anther income generating for Moeun's family. They are now own three boats including small, middle and engine boat especially four among seven children were sent to pursue their study at Kompong Thom Town.

Moeun's family has never taken loan from others. Nor, he does have any disputes with other people in the community. Regarding to the responsibility in the community, Moeun sometimes goes for patrolling and reporting illegal activities which would happened in the community protected area. Though, his wife never goes for patrolling, only for awareness attending or community meetings. The family never separated their income as they work together in all tasks. The source of profit are mainly come from the lotus farm, smoked fish, fish paste and dried. Some small amount is derived from crop plantation. However, Moeun seems get more income than his wife. He has his private money which he earns from being as the traditional medicine in the village.

3.3.2 "Vort and Hean"

Vort and Hean come from Kompong Kor district, Kompong Thom province. They migrated into the community after the government made a series of reforms in fishery policy regarding to the use of and access to, fishing lots in Cambodia in the late 2000. They expected they could get access to the resources in the area of leased fishing lots for the benefits of their livelihoods.

The same as the other families living along the Stung Sen River, Vort and Hean started fishing with the very simple materials – hook and gill net. They sometimes had quarrel with the other fishermen due to the scarcely resources and the great amount of people who come to fish in the open space of fishing ground. Since the Toul Neang Sav CPA was not established, Vort's family used to be fined by the local officers of the Stung Sen Core area because of the illegal fishing activities in the protected area. However, they are now feeling safe about the fishing ground and its sustainability of the resources area after the establishment of the community and their participation as the member of the CPA community.

Vort and Hean went fishing together and brought along with them the five years old son. Later on, he rarely asks his wife to fishing after she started pregnant the other four children. Today, Hean totally stop go out for fishing and let the oldest boy accompanies Vort. She stays at home doing housework, look after the small children and help her husband to manage the karaoke shop that they run it at home. Though, Hean has just begun her own job as the fried banana seller since last two month hoping that the job could help to share the living expense. Vort's family usually took loan from the relatives for household expenditure and the karaoke shop business.

Vort helps his wife to do house works only when she pregnant or get sick. Both rarely join in the community activities as their children still remain too young and no one manages the shop at home. The income between fishing occupation and fried banana of Vort and Hean are quite the same in amount. The family has only one rowing boat which use for both fishing and travelling. Vort mostly go to catch fish by walking to the flooded forest and the lake nearby the house.

3.3.3 "Khhoeun and Yum"

Khhoeun and Yum have been living in the village for almost thirty years. They started a living with fishing and smoked fish trading. Yum joind her husband to go out fishing, helped her husband in fish processing and repairing fishing gears except in fish trading as it took times on travelling. Later on, Yum rarely goes to fishing after she begins pregnant. Khhoeun has abandoned the smoked fish trading because of his wife gave the birth very often but still went on fishing as usual. Then, Khhoeun started growing corn and some vegetables on the land surrounding his house. Most of these crops are grown for home consumption, some is bartered within the village, and smaller amounts are for sale.

However, income from selling fish and vegetables was not enough for his family which consists of thirteen people. The family usually took loans from the local moneylender for solving the family financial crisis. Khhoeun tried to find the other ways to earn for living. He finally decided to do lotus plantation on the Tonle Sap Lake during the beginning of dry season (November-February). The adult children frequently come to help him in the lotus farm.

In 2005, during the initiated of the establishment of Toul Neang Sav, Khhoeun has been selected as the deputy chief of the community, helping the chief to manage the tasks of community. He, then get released from cultivation job and left the works to his wife and children but still went out for fishing daily. Moreover, he rarely did housework as most of the children grew up and able to help some tasks in the family. Also, Yum has found a new way to earn for extra income. Yearly, Yum sale traditional noodle during there has the influx of seasonal migrants who come to access to resources within the community boundary.

Yum takes responsibilities for all most household tasks including livelihoods and housework affairs. All money is earned by her and the oldest children as Khhoeun spend most of the time dealing with community matters. However, for them CPA provides not only the fishing ground and firewood cpllection but also maintain as the secure place for long term use of these resources. People now are more understand about the laws and their duties in the community. Further, he expects that there are some organizations would involve and support the community regarding to the livelihood of people.

3.3.4 "Pov and Veasna"

Pov have moved from Stoung district, Kompong Thom with her parents since 1985. She always accompanied her father to go fishing when she had no class at school. She knew the job quite well and kept doing this job even after she got married with Veasna who were the navy force stood by at Toul Neang Sav village, originally come from Phnom Penh. After married Veasna decided not to go back to Phnom Penh and transferred his job to work permanently in the village. He began to learn how to do fishing from Pov and sometimes he went for fishing with Pov. Free from government working hour, Veasna raised fish and chicken at home in order to get more income for the family due to the low salary of public service he got.

The family has also registered as the member of Toul Neang Sav CPA as they expected to use the resources ground when the open space nearby the house is no longer beneficial. At the same time they were willing to help the community to protect and manage the resources for sustainable use. Veasna have been selected to

take responsibility the job of saving group in the village which initiated and supported by the TSCP/UNDP. Then, he doesn't have much time for home and leave all most of the works with his wife and the oldest daughter who usually go out fishing with her mother.

Pov and Veasna have never taken loan. Now, they can afford to buy the engine boat and sent their two to study at Kompong Thom province, staying with their grandparent. Thus, the family quite happy to live in this area with the jobs and the responsibilities they have. They never have any quarrels with neighbors and they are very active in CPA as well as village works.

3.3.5 "Chamroeun and Yean"

Yean and her husband, Chamroeun decided to leave their hometown at Peam Kreng, Kompong Thom province to search for better life on the flooded land in Toul Neag Sav village, along Stung Sen River. Chamroeun began his first job as the worker of fishing lot where he could get three months salary advanced from the lot's owner to invest in animal raising. They started rearing pig and fish at home. Though, Chamroeun spend most of the time at fishing lot and left most of the works to Yean.

Chamroeun worked for the fishing lot for almost five years. He stopped the job at fishing lot while the government announced the area of leased fishing lots to be used and managed by local communities. Chamroeun turned to catch fish and helped Yean in managing their animal rearing business. Since then, Yean become independent in the job. She becomes the fish trading middleman in the village by collecting the fish from the fisherman and sold them all to the wholesaler buyers at Chnouk Trou, Kompong Chhnang.

The family can benefits well from fishing, fish and pig feeding. However, they agreed in Toul Neang Sav CPA's establishment as they wanted the place to be used and managed by the local people rather than the private or commercial. They voluntary participated as the CPA's member, though; they never get into or access to the resources of the community due to their house is far from the CPA. Chamroeun usually goes fishing in the lake nearby his house. He always helps to do domestic

works as Yean is quite busy with household business activities – fish trading than Chamroen.

Both Yean and Chamroeun have never separated their income but it seems that Yean works hard than Chamroem particularly with the fish trading occupation. They spend their money on household expenditure, education fees of children and animal raising investment. However, they always take loans from their relatives yearly because there is no strict condition with low interest or guarantee. They pay back after they sold the pigs and fishes.



CHAPTER 4

FINDINGS AND ANALYSIS

The chapter presents findings and analysis related to the implementation of CBNRM in the local community followed by the establishment of the Toul Neang Sav CPA community. Also, the chapter describes about the livelihood outcomes in line with the gender roles within the community. A numbers of benefits that people get and the opportunities that women received from the establishment of CBNRM are included in the chapter. Women's and men's roles and their responsibilities in family and within community as also take place in this chapter. All of issues will be mainly discussed in according with the five household case studies and information got from the field.

4.1 CBNRM in Toul Neang Sav community

4.1.1 Objectives of establishing the CPA

Inequality in asset ownership and access to common property becomes more problematic due to the resources scarcity and the influx of population. Traditional income activities decline with the fall of natural richest ground. People survival goes down into instability condition. Then there is a need for new approaches to reestablish the ground for better socio-economic development and conservation. In Cambodia, CBNRM is being endorsed as a way to increase local empowerment and rural livelihood sustainability. It is also the mean for equality in resources use through people participation in controlling and managing the resources.

"The establishment of the Toul Neang Sav CPA is the result of CBNRM. Natural resources are being managed by the communities with the technical assistance from relevant stakeholder especially provincial and national technical department. Co-management between the government agencies and the local people would help the community to achieve the goal of biodiversity conservation and securing local livelihoods" (Tipath, Provincial environmental officer, personal interview, July 23, 2008)

CBNRM is the new emerging approach of community resources management. It is the initiative management style which consists of local people and authority regarding to natural resources management. It looks quite new to local community in term of its concept and sometime implementation. This leads the approach seems to be more government controlled rather than co-management among community and government. To be effective, changing the approach should requires a new administrative management that modifies the roles of government from being direct control to indirect one so called facilitating task.

Thus, the establishment of the Toul Neang Sav CPA is aiming to:

- Conserve and protect natural resources in the area as well as in Tonle Sap in a sustainable manner and ensure equitable sharing of benefits for local communities;
- Increase local understanding and participating in government policy regarding to CBNRM for improving the standard of living of local community in order to contribute to poverty.

(Toul Neang Sav by-law agreement, 2007)

4.1.2 CPA organizational structure

Management structure of the community

Organizational structure of Toul Neang Sav CPA is divided into three levels comprising community committee, sub-community committee and group/section. This management teams accompany by a Group of Consultants and a Group of Facilitators. The Group of Consultants includes village and commune authorities, head of a Buddhist monastery, director of school and representative from old ages people. The Group of Facilitators comprises of government officers who were dominated by the GDANCP/MoE, director of Stung Sen CPA, and other related projects. The two groups help the community to elect the community committee and sub-communities. The members of the committee are selected among the volunteered community members with the majority votes.

"We are automatically become the group of consultant to the community because we are the local authority. We have to make sure the people in the village could benefit from the development activities of the community" (Mono, chief of Phat Sanday commune, personal interview, July 13, 2008).

There are eleven community committee members and four community subcommittee members. Group/division level divide into four different sections govern by one head and two deputies.

Rights and responsibilities within community

The rights and responsibilities of community committee, sub-community committee, division groups, the group of consultants, the group of facilitators and community members are constituted in the community the by-law agreement.

"The group of community consultant have duty of helping facilitate all of the works of the community, provide consultation regarding to the management of community, assist in problem solving requested by the community committee, organize awareness raising activities about the community to local and international organizations, as well as engage in monitoring and evaluating community activities" (Ra, member of the group of consultant, personal interview, July 13, 2008)

At the same time, the group of facilitators has duty to facilitate and provide technical assistance related to the management works of the community. Environmental laws, regulations and other funded are also provided by the Group. "Two technical officers are dominated from GDANCP and other one is from technical provincial office. The main responsibility is to provide the technical support to the community and other legal facilitation regarding to the implementation of the community" (Kheng, GNANCP staff, personal interview, July 11, 2008)

Community committee and sub-community community members respond for the overall tasks of the community. They are the leader group of the community which facilitates all kind of works related to the process and the development of the community. The committees have to make sure and guarantee the rights to access to resources to all community members. Communication and collaboration among the community, local authority, protected area, related agencies and other organizations are also the responsibilities of the committees (Community by-law agreement). The head and the deputy head of group or division take control and respond for the specific tasks in each division. Therefore, community members have to participate in the community works as well. The members need to take part in the patrolling, spread out the community and environmental regulations, and monthly contribution (500 Riels) to the community safe box.

The Group of Consultants **Toul Neang Sao CPA** The Group of - Chief of Phat Sanday Committee **Facilitators** - GDANCP/MoE commune - Chief of Toul Neang Sao officer **Toul Neang Sao CPA** village - Director of CPA **Sub-Committee** - Head of Kompong Project staff, Chamlorng pagoda NGOs, IOs (if any) - Director of Toul Neang Sao primary school - Representative from ages people Administration **Environmental Patrolling** Socio-economic **Division** and Livelihoods **Education** and Division **Division Awareness Division**

Figure 4.1 Organizational Chart of Toul Neang Sav Community
Protected Area

Meeting and decision making

According to the community by-law agreement, there are two kinds of meeting in which community has to organize regularly – community committee meeting and community members meeting. Community committee meeting conducts at the end of the month. The meeting is about the progress of the community and the tasks related to the four sections of the community. The meeting can also arrange before the end of the month in case of urgent works. The Group of Consultant is invited to the meeting for providing consultation or problem solving. Decision is made by the majority of presenting people in the meeting. Differ from community committee meeting; meeting of community members organizes two times per year – in the middle and the end of the year. Problem decision making is based on the majority of the whole community members. Report of meeting is made and published in public for at least 10days. The announcement of the result of the meeting is post on the information board of community office, school, pagoda, and commune office.

However, the meetings were not organized regularly for the first two years. There were many reasons regarding to the absence or irregularly meetings as explained by Mr. Puk Khhoeun, vice chief of CPA (personal interview, July 12, 2008). The residents of the community members are not located in the community area. Water way is only the kind of transportation. Travel to the community office is costly and consume a lot of time. People are voluntary to participate in the community but they have little understanding about the importance of community.

"It is difficult to call for all community members to join in meeting. Some members live far from the community station and some busy with their jobs. We just inform them and then announce the result in public. In case there is urgent case, we make it among the community committees in consultation with commune or village head" (Head of community, personal interview, July 13, 2008)

4.1.3 Resources access and utilization in the community

Natural resources

According to the community by-law agreement, community members are able to use and access to natural resources within community equally. Fish is allowed to catch for household use or for family survival by using small-scale fishing gears such as hooked line, dram trap, cast net, spear, and gill net. Villagers could also take nonforest production from the undated forest in the community likewise herb and firewood etc. Utilization and access to the resources have to follow the law of the protected area.

"Article 22 Cambodian government guaranties the traditional rights and custom of indigenous people and the local community to use and access to resources in the community protected area that recognized by the government for their family use. Any utilization and access to the resources for commercial purpose is prohibited"

(Protected Area Law, 2008)

Either Migrant people or non-community members allow using and accessing to the community resources the same as community members, therefore, they have to ask permission from the community committee before entry into the community area. Also, they have to contribution some amount of money according to the agreement between the users and the community committee (community by law agreement).

Resources utilization for the benefits of community has to agree by the whole community members and the protected community director.

"Many seasonal migrants come to the community area start in July until December or January. They use the area for fishing and forest production collection. When they know about the rules of the community, they are willing to contribute because we do not require them to pay too mach" (So Sun, personal interview, July 22, 2008)

Regarding to sustainable resources use of the community, some activities are prohibited. In align with the forbidden, the community has included education, and disseminate environmental information into the community program. These activities are facilitated and supported by the technical staffs from the provincial environmental office and the GDANCP/MoE and especially the rangers in Stung Sen Core Area. "Because this is the first stage of the community, environmental education and awareness for the community is combined with the education and awareness program of Stung Sen Core Area. The community can learn from us and next time the community can do it by themselves" (Mom Im, ranger of Stung Sen Core Area, personal interview, July 16, 2008).

Apart from education and awareness activities, patrolling usually accompanies by the rangers of the Core Area as they have enough equipments and patrolling materials. Community member's participation is also limited. Only community committee and sub-committee are frequently in the safeguard activities of the community. That is due to the budget constrains leading the community unable to run this activity well (Khhoeun, personal interview, July 12, 2008).

The community can use the natural resources as long as they are consistent with the following prohibitions of by-law agreement:

Prohibited activities in the community

- Forest cutting, clearance activities and forest fire
- Sale, hire, exchange, pawn or mortgage, gift of community land or other community properties
- Catch or hunt wild animals in and around the community forest in all means
- Over exploit the forest products for commercial use
- Cut or knock the tree down or non-forest collection for barricade or wild fruits collection
- Barricade in community area
- Clearance forest land for ownership, for farming or cultivation
- Permanent stay in the community area
- Illegal fishing gears or commercial fishing gears

Financial resources

Both of community member and non-community members have to contribute to the safe box fund of the community. Community members contribute through the member's monthly fee and contribution for exploiting resources in the community for non-community members. Safe box fund also include charity from other agencies or outsiders as well as the fine from punishing the criminal but contribution from this sources is rare as community is not quite known from other agencies (Khhoeun, personal interview, July 12, 2008). Beside safe box, the community has developed saving group or self help group to provide loan to people especially to women to enhance their livelihoods through providing loans to help them start or expand income generation activities such as raising fish, raising pigs, and small grocery stores etc. The interest rate for the loans is 3 % for borrowers and 2 % for money keepers. Another one percent from the interest is use as incentive for community. It includes in the community safe box.

The community uses the money in safe box for community administrative works, education activities and particularly for patrolling. Apart from this purposes, the fund also use for giving the charity to the poor or vulnerable group in the

community. Community cashier has duty to keep and manage the budget with the approval from the community committees and the Group of Consultants.

However, fund and money saving groups can support various activities of community but there are several reasons in which the community could not process the money distribution well for the community. Not many people could access to the community fund due to the limitation of the stored money. According to Veasna, leader of saving group, said people do not have enough knowledge about how to use and manage the loan in effective way. After borrow the loan, some of them are in debt because they are bankrupt with the new activities. Moreover, the interest rate is still high (3%/month) which is difficult for poor families to get involve in this saving group (personal interview, July 13, 2008).

4.2 Contribution of CBNRM to livelihood conditions

Since the landscape of the community and people residents is covered by flooded forest and grassland, most of the community members are living on the silted house in which the majority of the villagers are engaged in water resources based livelihoods. Establishing Toul Neang Sav CPA is one strategy for communities to participate in natural resources management that contributes to upgrading their living conditions and as the result, the benefits from the resources have been recognized to support the livelihood of the villagers in a good manner and in a sustainable way. CBNRM is the mechanism to become the use of natural resources and improvement of livelihood conditions in sustainable manner.

4.2.1 Job/livelihoods security

The main occupation of the community is characterized by primary fishing activity plus a combination of agriculture, forestry and livestock (table 4.1). Agriculture activities include rice/ vegetable and crop cultivation as well as livestock raising such as pig, chicken and fish. Some villagers are able to grow their rice and crop on the land surrounding their house while some are able to plan lotus in small plots of land beside the Tonle Sap Lake during dry season, when the water levels are low. Forestry activities gather all kinds of forest related activities which comprises of

firewood, herbs, honey collecting etc. The people livelihood activities in the community remain unchanged after the establishment of CPA but the ability to access to and control over the resources has been guaranteed leading to secure the livelihood practices of people.

Freedom to access to the fishing ground

Primary livelihood is an economic activity that households engage in, in order to meet their basic needs: food, clothing and shelter. Fishing is the traditional occupation for people living in and around the Tonle Sap especially the people in Toul Neang Sav village. They use small scale family fishing gear such as gill net, hooked line, lorp (drum trap), samnagn (cast net), bangkay and snor (spear). Villagers do fishing for both rainy and dry season, the whole year round. Fish is the main source of local people diets. Most of the households eat fish instead of other kind of meats for the reason that they could find fish easily and cheap or without pay. Fish provides benefits to people. Not only for daily food, but people can also earn income from fish by selling the surplus fishes or fish processing such as smoked fish and fish paste etc. People are secured about the fish resources in the future as the can manage and control over the fishing ground through the establishment of CPA.

"About ninety five percent of the people in the community are dependent on fishing. They catch fish everyday, for food and cash income. Fish is the valuable property for water resources based livelihoods people. It is good to have certain and secure place for them to catch fish so they are not worry about where they should go for fishing." (Deputy Chief of Toul Neang Sav Village, personal interview, July 13, 2008)

Villagers have been given more freedom to get access to the community area. They could exploit the resources follow by the by-law agreement. "Before I was catch and fined when I got into the area. After establishment the community, I could entry and catch fish and collect firewood in the amount mentioned in the community agreement" (Vort, personal interview, July 17, 2008). The same reason explained by Voeun "Villagers who were the community members could allocate and exploit to the resources in the community without paying or fined. However, they need to follow the rules of the community regarding to the limitation of resources use. People could catch fish in small family scale using family equipment that unharmed to the sustainable of the resources" (personal interview, July 13, 2008)

Three out of five households in the case studies access to the resources in the Toul Neang Sav CPA for their daily livelihoods. Their residential location is not far from the community site, they can catch fish and access to forest products in both public space and in the community. They usually use the community area as the fishing ground because it provides a proper fish yield as Khhoeun said that "I usually come to fish in the community area because it closes to my house and there is a lot of fish. I do not need to spend time on travelling. I normally go fishing in the early morning and again in the evening if I have free time from the community work. Fishing is becoming my habit. Even we don't sell the surplus; we still need it for food. My family eats fish for almost everyday" (Personal interview, July 18, 2008).

Some far villagers still exploit the resources from the community. They venture into the CPA area seasonally or by time. "In the dry season I fish in small rivers or ponds close to the Tonle Sap Lake, as it is close to my lotus farm. So, I could catch fish and guard my lotus field at the same time. In flooded season, I usually go to fish in the CPA area because it closes to my house. These are very important places for me as well as the other villagers to fish for daily livelihood" (Moeun, personal interview, July 14, 2008) while Vort also repeated that "I usually come to fish in CPA area in the dry season because in that time the rivers or ponds have become smaller and there are many fishermen in the open space. And, when I fish in the community, I can get a lot of fishes. I use fish for food and the rest from eating I make smoked fish that can further keep or sell" (personal interview, July 14, 2008)



Table 4.1 Seasonal calendar of activities undertake by villagers in the Toul

Neang Sav CPA.

Subsistence activity by	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
month												
Fishing												
Fish processing												
Collecting firewood												
Collecting honey					11/1							
Selling goods												
Raising pig, chicken, fish												
Farming												
Planting vegetation												
Lotus cultivation				9 5								

More animal raising

Besides fishing, the villagers are generally involved in animal rearing activities that supplement their livelihoods, to augment their earning. It is an important part of the livelihoods strategies of many households. Most villagers in the community have a numbers of chickens used for meat and eggs for sale and consumption. A few families raise pigs and fishes used for sale.

"People in our village usually rear chickens, pigs and fishes. Pigs are rarely feed during dry season as it needs a lot of water to wash and clean pigpen and the waste from the pigs can pollute the water especially during the low season. Moreover, pigs always get disease during the hot season. These occupations can provide the villager a substantial amount of income during the low level of their primary jobs" (Chief of Toul Neang Sav village, personal interview, July 13, 2008)

Raising animal is an importance supplementary source of income but not many people in the community rear animals before the establishment of the community. Though, there was then numerous of villagers raise fish and animal after the creation of community. That is because the community loan program that provide the opportunities to people to set up the new jobs or expand their business activities in order to improve their family economic conditions.

"Some families borrow the money from the loan program and start rearing fish and other animals while some use the loan to expand their existed occupations by increasing the amount of animal they have raised" (Mom Im, personal interview, July 12, 2008)

It has been noticed that fish and pig rearing is the favorite alternative jobs among the community members. However, fish cage is the most, for instance in the case of two households of the case studies whose are rearing animals. Apart from fish, Chamroeun raise pigs while Veasna feed chicken. Regarding to these issues, Chamroeun explained that:

"My family started to raise fishes and pigs since we just come to live in this village. We rear them for economic purposes. We use small fishes that I catch from my daily fishing to feed it so we do not need to spend much money on fish food. Now, we increase the amount of fish in the cage and buy the fish food from other neighbors. I am able to send my small five children to study at Kompong Thom town" (personal interview, July 20, 2008)

The same reason gave by Veasna "Apart from the main occupation, I have supplementary occupations likewise livestock raising. I used to rear chicken and pigs but pigs faced a lot of diseases especially during dry season. Last time, almost all the pigs I reared died as I didn't have any experiences related to the pigs. Now I feed fish and chicken. Chicken is easy to raise but it is cheap and therefore do not provide much benefits" (Veasna, personal interview, July 19, 2008). The number of animals raised varies according to the well-being ranking of the households. In general, well-off families have more animals than worse-off families. The small family rears pigs in the maximum of five while the medium family is around five to ten. Pigs are popular in the village. Pigs are raised purely for sale and often price from 200,000 Riels or to 400,000 riel whereas chickens are cheap and therefore do not show economic strength of the owner.

Small scale business

None household is considered as the rich family in the Toul Neang Sav village or in the community (Chief of village, personal interview, July 13, 2008). People who have possibilities for investment usually run the grocery shop or selling things that requires little capital investment so called the small scale business activities. Although Phan (Moeun's wife) are busy with fishing and cultivation activities, she decided to

open a grocery shop to supplement family income as she got the loan from the community program. Her business did not provide much profit but alternatively could support the family daily expenditure especially during the low level of fishing.

"I sell sugar, candy, salt, vegetable, firewood, and fruits etc. This job could not earn much but it is able to cover my family everyday expense. So, i can keep the money from my husband for other household expenditures" (Pan, personal interview, July 16, 2008).

The case is similar to Vort and Hean's family. Although Hean just has been starting selling grill bananas within last three or four months, her business seems run smooth. She wants to share the burden of her husband on family. "I did nothing besides housework and look after the small children. That's my first time to grill bananas. Now, the process is good and I hope that it would remain like this so that I can help my husband to pay for our daily expense and built the new house" (Hean, personal interview, July 17, 2008). Hean's family also runs the karaoke shop. Unfortunately, their business did not earn enough profit to pay back for the electricity so they would like to shut down the shop soon. Their business may have failed because of the location of the shop which is far distance from the crowded area.

The big business family is Chamroeun and Yean's family. Yean is only business women in the village who run the fish trading. Before she only raised fish and sell to the middlemen. But now she collect the fish from other fishermen combine with her feeding fish bring and sale to the middle trader at Chnouk Trou. Yean is the only fish trader among the five case studies. "At first, it was very difficult for me to run that business. I had to do housework, looked after children, and fish rearing while my husband worked at fishing lot. Moreover, I did not have enough capital and it was abnormal when woman involve in the business activity with the long travelling. I took loan from the community to expand the business. Now the situation turns to normal" (Yean, personal interview, July 19, 2008).

However, her business sometimes failed because she doesn't have actual knowledge related to the business. Thus, she always took loan to restore and restart the business again.

Forest related activities

Firewood for cash selling is not interested in the village. There are a few families who earn the income through firewood collection especially in the case studies; only Phan's family earns a supplement by selling woods combine with other things in the grocery shop. However, firewood collection is a natural part of rural life. All the community members collect firewood for their own use due to the accessibilities of the sources. They could collect firewood everywhere – in flooded forest or even in CPA area.

"My husband always come back from fishing or lotus farm with small or died branch of trees. I keep some using at home and some I arrange it into small pieces and sell with other things in my grocery shop. Before the establishment of the community, he usually went to the flooded forest near the lake. But now he could access to the flooded forest of the community. So he does not need to go far to collect wood (Phan, personal interview, July 14, 2008)

Noticeably, the supplementary occupations are undertaken according to the wealth ranking of the households and opportunities available. Likewise, Phan's family could benefits from firewood because she operates the goods selling shop at home. The other alternative options such as animal rearing require some amount of capital to invest while the crop cultivation is not. Among the five household case studies, two families choose the rice farming and crop cultivation as the supplementary occupations and the other two choose to raise the animals (chicken, pigs, fish) while the rest run the small business at home (observation, July 12 to 20, 2008).

However, the use of resources, for instance fish and forest products for family or subsistence livelihoods level by the community members is permitted in accordance with the protected area's laws and other related regulations. Any activities that would causes degradation or destruction of resources in the area are not legally permitted. Communities obtain a very broad variety of livelihood activities with seasonal and local differences in the types of activities they pursued. The majority of households depend upon more than just one primary occupation for their livelihoods and these jobs are being expanded after the community started the loan program. Household combines fishing, cropping, farming, forestry and several other activities in order to gain food, income and employment. Thus it could be said that the diversity of occupations takes place in the community, but it remain the same throughout the

entire community that fishing is regarded as an extremely important source of livelihood while the secondary occupations are often related to agricultural land include faming, vegetable cultivation and livestock raising.

4.2.2 Increased income

Small-scale saving group program or self-help group has been set up by the group of people in the community. Villagers who register as the saving group members have to put the money into the group saving box that control and manage by one person who has chosen by the community consent. The money is ranged from 3,000-20,000 Riels and the maximum amount of loan allowed is one million Riels for a period of four months with 3% interest per month (Veasna, personal interview, July 19, 2008). The money from the group saving program provides people the capital to start other generating activities besides fishing in order to increase their family income. Moreover, it could also helps villagers who wish to expand their livelihood activities such as fish-pig-chicken rearing, buying and repairing fishing tools, as well as open small grocery stores etc.

"There are 40 households now involving in the saving group of the community since there were only 15 households at the beginning. Villager can put the money as much they could and many times as much as they want. The group members can borrow the money not more than 1 million Riels within 4 months. If they could not pay back on time, they could not be provided further loan agreement or could not be the member of the saving group anymore (Veasna, personal interview, July19, 2008)

Thus, the villagers with less ability but have small resources to set up a secondary business always borrow the money from the group than the others as such in Yean's case. "I regularly borrow the money from the community saving group to reinstall my business as the pigs I rear are not fruitful especially during the dry season. They get disease and die and I need money to buy the new species. Usually I borrow 50,000 Riels/time and pay back immediately within a month, after I get the profit from other business" (personal interview, July 20, 2008). Similar reason for borrowing the loan from the self help group explained by Hean, the new food seller, "I have put 10,000 Riels into the saving group. I just borrowed 100.000 Riels last

three months to set up the new job as the grill banana seller and to keep on my karaoke shop" (personal interview, July 17, 2008).

In general, people satisfy with the establishment of the community especially the loan program which help them ease to access to the fast and cheap loan.

"Before the establishment of the community, my living was very difficult because the income generated from the amount of fish I caught was not enough to support my family. I earned very little income but my family expenditures were high. Following the establishment of the community, my family as well as other villagers becomes the members of the community. Before I was involved only in fishing but now I have other secondary business activities such as fish and pig raising. I took loan from the community. With these activities, I am able to earn more income and my family living condition is better than before. I am also able to save money. Soon, I will be able to buy a motorboat (Thoeun, personal interview, July 15, 2008)

There are many livelihood options alive in the community which could help people to up-grade their living conditions. However, villagers are risky to take the loan to start the business or to rear the animals without knowledge or technique method use. They make the living occupations based on their habits and experiences. As the result, some families could run their business smoothly and some could not. "In dry season, pigs are difficult to raise. There are many kinds of diseases within that period. I don't know how to cure the pigs. I use injection to cure the ill pigs. Sometimes it could work; sometime fail and my pigs die often" (Yean, personal interview, July 20, 2008)

However, most people could not access to the saving group of the community. It probably means that they do not have the chance to upgrade their livelihoods provided by the community. Only 40 out of 270 households could access to the loan program consuming that the majority of people do not have opportunities to increase their livelihoods support by the community.

4.2.3 Ownership of resources and sustainable resources use

Before establishing the CPA, there were a number of illegal fishing activities committed by the surrounding villagers who residents near the protected area as well

as people from outside the village. Powerful people used illegal fishing gears that caused a severe decrease in resources. At the same time some villagers illegally enter into the resources ground and overexploited the resources to support their living (Sun, personal interview, July 15, 2008). Over-fishing and the use of illegal means contributed to the reduction of the resources and the livelihood of people was no longer sustainable.

Recognizing the decline of resources in the areal, CPA was established aims to upgrade the livelihood of community protected area and to conserve of natural resources. Since the CPA was set up, illegal fishing activity has decreased. The villagers consider the community a very important as it provides the resources ground for the community helping to improve their living conditions (Kheng, GDANCP staff). Furthermore, villagers are now getting more ideas about how to use, access to, conserve and protect natural resources through the education, dissemination and information which provide them knowledge regarding to the importance of natural resources.

"My family has lived in Toul Neang Sav village since 1985. Our livelihoods depended on fishing. At that time outsiders came to catch fish and some of them used illegal fishing equipments. This practice caused a decline in fish and a decrease in livelihoods for us as well as other villagers. Following the establishment of CPA, my family and other villagers became members of the community. We helped each other to protect the resources in community from any illegal activities both from insiders and outsiders" (Thoeun, personal interview, July 14, 2008)

4.2.4 Access to the community charity fund

Apart from the community saving group, the community provides another ways to support the poor, elderly with no family, orphans, poor windows and sickness helping them to recover from the bad situation so called the community charity fund. The most vulnerable community members can request the charity fund from the community if they need. The community committees would decide to give the fund according to the real situation of the requesters.

"My family came to live in this area since after 1979. I'm living alone with my wife because our children were died during Pol Pot regime. My family is involving in fishing activities. I and my wife are too old and we can't work too much. We work only for our own food. If we were to get

ill we would not able to afford the medicine. After the community was established, we received support from the community when we got sick" (Sopheak, personal interview, July 15, 2008)

4.3 Women and their opportunities from CBNRM

Since the community had been practiced the CBNRM, there are changes in natural resources management and changes in people livelihoods. Gender relations and gender roles designed women and men in different tasks and responsibilities by participating in this community based management process. Works performed is the main contributor to the livelihood strategies adaptation. Therefore, women's and men's problems and needs differ which leads to obstacles and opportunities that they face also differ meaning that the benefits women get from the change may vary from men. Thus, in such context, women in Toul Neang Sav CPA to some extend are gaining some opportunities from the transforming resources controller by integrating themselves in accessing to and control over resources, more chances to engage in family livelihood activities as well as participate in the community work. As the result, women are getting more important role in controlling family income and decision making process as they are occupied apart of economic activities of households.

4.3.1 Livelihood options

According to MRC (2003: 23), 52% of the populations in the Tonle Sap Area are females and the female-headed households are usually the poorest in the village. In Toul Neang Sav CPA, the number of women is almost half of the community members and noticeably they are active in earning activities. Fishing is the major occupation in the community. Although, not all women are involved in fishing, they have to manage the fish products by dividing them for new breed, food and sale. It seems women are apart from involving in the primary occupation making the men are regarded as income providers and women as housewives or managers working at home.

In Toul Neang Sav, men and women are involving in household income generation but the physical differences between men and women define their participant to some extent in different tasks. Men are usually responsible for the works that are physically more demanding such as heavy work, far distance working place etc, whereas women get involve in many various secondary occupations, for instance, household farming and marketing of extra family products (personal observation, July 2008).

Due to their social skills, social networks and traditional living style, women enhance their abilities by themselves by means of participating in community livelihood activities. By and large, they have the knowledge and skill about the prices ranges, buying cheap but selling high to make profit at the market. Less capital requirement to set up these jobs eases women to involve more in the livelihood activities. To activate these jobs, women usually have taken loans from the neighbors or relatives or moneylenders if they do not have enough assets. Loans from moneylender can take immediately but they have to pay high interest while loans from neighbor are in small amount and sometimes have to travel far away to take loans from the relatives.

Since the establishment of the community, saving group or self help group of the community targeted on women by providing them opportunities to operate their occupations. Women are encouraged to take loan from the self help group of the community in order to set up small business activities helps to increase family livelihood. Women who do not have enough capital ability now can access many options of occupations easily. Likewise, in the case of Vy, the new comer who comes to reside in Toul Neang Sav village because of her husband has nominated to be as the director of the Toul Neang Sav primary school. Salary from public service was not enough for Vy's family to survive; Vy decided to borrow the money from the community saving group and started her small grocery shop in her floating house in front of the school (personal interview, July 15, 2008).

Loan opens to all community members. However, it is found that women took loans more than men. That is because of the purpose of saving group that consider women are the first priority who could participate in the supplementary occupations while men are in fishing, the primary occupation. Women could not access easily to credit from outsides due to the strict conditions, long distance particularly high

interest rate. Therefore, they prefer to obtain loans from saving group in the community. The size of loan is different from person to person according to their business purposes.

Thus, the villagers who have small resources to set up a secondary business but they have less ability are always borrowed the money from the group, for instance; in Yean's case. "I regularly borrow the money from the community saving group to reinstall my business as the pigs I rear are not fruitful especially during the dry season. They get disease and die and I need money to buy the new species. Usually I borrow 500,000 Riels/time and pay back immediately within a month, after I get the profit from other business" (personal interview, July 20, 2008). Similar reason to borrow the loan from the self help group explained by Hean, the new food seller, "I have put 10,000 Riels into the saving group. I borrowed 100.000 Riels last three months and started the new job as the grill banana seller and to keep on my karaoke shop" (personal interview, July 17, 2008).

Men rarely take loan as they think that taking loan or borrowing money is women tasks. Thus, women always the one who take loan when family need money. In some cases, however; women do not taken loans for her individual business but for starting up the family new business activities. It is clearly shown through Heng's family.

"My family has 6 members. Before we lived in Kror Kor district but now we moved to here for almost one year. Previously we were only involved in fishing and our living condition was very difficult for daily survival because of the intense competition in this occupation. We knew that Toul Neang Sav had established community protected area and provided the resources ground and other opportunities for people. Then we registered as the member of the community and changed from completely fishing to fish raising, battery charging and selling as a family business. We got the start-up capital from the saving group of the community. Now we run this business and my husband goes fishing for sometimes" (personal interview, July 14, 2008)

Differ from other women in the community, who took loans for small shops, Pov borrows the money for buying the new fishing tools as she is the only fisherwoman among the five household case studies explained "My fishing tool is getting old and could not use any more. Urgently, I don't have enough money to buy

the new one as my chickens that I'm rearing are not big enough to sell yet. Luckily there have saving group in the community. My family registered as the members of group and put some money in that. So I decided to borrow the money from the saving group to buy the fishing material. I will pay back next month when I sell my chickens" (personal interview, July19, 2008)

Therefore, loans provide more livelihood option opportunities to villagers especially to women. That is because of the main destination of saving group of the community is to help them to start or expand their small business activities besides fishing. Thus, women are taken loans the most because all most the men are already having their own occupation which is catching fish. Moreover, the purpose of saving group is to provide the chance to less ability women who want to set up livelihood activities such as animal rearing, fish cage, or small scale business or expend their exited occupations in order to upgrade family living conditions.

It is noticed that villagers, who aim to operate the other business activities, obviously want to take loan from the saving group rather than outside sources due to the uncomplicated loaning procedure, nearby the house and especially with the low interest rate.

"There is no requirement for any person to guarantee the loan from saving group of the community. Everybody knows each other and we have the list of saving group members as well as the loan agreement with those who borrow the money. Borrowers can pay back within the period of four months with 3% interest. If they take loan from outsiders especially from moneylenders, they have to pay 4-5% interest" (Veasna, personal interview, July 19, 2008).

However, there are some limitations to access to the loan of saving group. Not all community members could take loans. Loans provide only to those who are registered and volunteered to put their money in saving group. This limitation, therefore, definite the accessibility for others whose have real intention to start new occupation or enlarge the business activities. Thus, options livelihoods activities are not provided within the community in overall or meaning that not all community members are gaining benefits from this saving program. "If I need money, I borrow from the moneylenders and I have to pay back in an expensive rate than loans from the community. I have no choice as I could not take loans from the community

program unless I become the number of the group" (Kunthea, personal interview, July 14, 2008). Thus, the principles of saving group should be changed and it is better if the program enlarge their activities so that all people or at least the majority of villagers are able to take loans to participate in livelihood activities in order to upgrade their living conditions.

4.3.2 Income allocation and decision-making

According to the household case studies, loans from saving group give opportunities for women to share a proportion as breadwinner through their supplementary occupations that contribute to the household income. Many livelihood options are provided by the program. Now women are much involving in earning activities, they are more understanding about movement and the progress of the society. Being close to the public space, women are more aware of information and knowledge which could help them to claim their rights and positions in home or community. It is becoming general that roles of women and men vary according to the economic activities which they undertake and the possibility of these activities contributes to household income. Among them, if anyone could make more profits, that person automatically is more influenced in household decision making or family affair.

"My wife is rearing fish and pig. At the same time, she runs the fish trading business. Before, she usually borrowed money from the fish trade middleman to restart raising pigs. Since established of the community saving group, she rarely take loans from the middleman due to the high rate. She engages in the jobs and could earn much money more than I do. We keep the money and other properties in common and she maintains the money and manages it. I also give my income from fishing to her" (Chamroeun, personal interview, July 20, 2008)

The above household case study shows family decision making are being changed according to the earning activities. Women can earn as men do and also have changed the value of women. Hean expressed that "I took money from saving group and did my small selling last three month. I can earn money from 3000 – 5000 Riels per day with my grill banana job. This amount is similar to my husband income from fishing. I spend this money for household consumptions. Now I realize that my husband accept my idea" (personal interview, July 17, 2008). Similar case is

happened in Moeun's family. His wife opens the grocery shop at home and could earn 10,000 Riels per day. The money she earns spends in household expenditures such as daily food or school fee for children etc. That is because of women are considered to have the main responsibilities to maintain the well-being of their family members.

Moeun's family has illustrated the change in family income management and controlling. It clearly showed that men are money controller if women do not have any profitable occupations. That is because of women are the majority of unpaid caretakers to home and family members. Women and men experience different socioeconomic contexts as well as gender roles expectations which result in women giving more hours of unpaid jobs than men and more often having responsibilities more than one care occupation than men. Therefore, economic condition of women changes leads to change in social condition as well.

"My family comes to live here since 1983. We did fishing for living. Apart from catching fish, my husband earned money from being as the traditional medicine. He kept all income as I did not have an extra job beside look after children and housework. Since I started my small grocery shop, he gave the money and other household properties to me to manage and control because my income can support for daily expense and some left for my children education fees" (Phan, personal interview, July 16, 2008)

Thus, it is found that women are giving rights to control and manage the income of the family when there is an absent of men in income generating. Hence, women have to be well managing to the earned income in order to maintain the livelihood security of the family. Possibility of women to control over the income helps them to have more accessibility in making decision regarding to household tasks. It is obviously clarified by Veasna that:

"I always give my salary from public servant to my wife. It is not in large amount. She could earn more than I do. She goes fishing everyday and rear fish and chicken at home. I could not help her much because most of the time I spend with the government work and the community work. I respond for managing and controlling the money of the saving group. My wife takes responsible for almost the tasks at home even the family survival. So most of the household tasks and any decision making in the family are managed and made by her as I do not know much about my family affairs " (personal interview, July 19, 2008)

Because women now are engaging more in the economic activities, there is also more ability for women to mitigate against the discount rate for their labors and to avoid from any discriminations. Women's role and degree of decision making in the family, therefore; is depended on the ability of women in economic distribution meaning that the more women can control their means of economic production and its allocation, the more power and prestige women can gain. When women are able to consolidate power and control important dimensions of their lives; then they will also have greater access to resources.

"My husband did not have any much experience with the animal rearing. He used to work for the fishing lots and after that fishing. Ho does not care and worry about the business at home. Everything is upon me. He let me manage and decide everything regarding to our animal rearing business" (Yean, personal interview, July 20, 2008)

Noticeably, the status of women diverse not only causes by income. Anyhow, the age of women and men constitute the power and the roles of women and men as well. That is probably due to the culture which values the old age people in both family and society. In the case of Chamroeum and Yean, couple in the community, Chamroeun is five years younger than Yean. Yean seems to make decision for almost household's affairs, particularly within the work she performed. She control and decide what kinds of animal to be raised as well as the price of selling fish. Between them, Yean is the one who make the final decision as she manages the fish trading of the family (personal observation, July 20, 2008).

Anyway, women always have discussed with their husbands before they make the final decision even they are involved in income generating activities or even they are the one who earn profits the most for family survival. "I always make discussion with my husband related to animals rearing. We consult each other to find what kinds of fish or animals we are going to raise, how much should we invest in this jobs etc." (Yean, personal interview, July 20, 2008). The absence of absolute power of women influences by the history gender roles and inequality mainly in ownership and control over family income by male household members. However, the participation of women in the community particularly in the economic opportunities helps women to enjoy more freedom from the historical context and this lead to change in gender

relation between the members in the family especially the social connection between women and men.

4.3.3 Utilization and access to resources

Community provides equally benefits sharing among the community members. Villagers are able to use and access to resources in the community equally without constitute women or men (community by-law agreement). They can allocate and exploit the resources for household consumption and survival by using the small scale or family gears/ equipments follow by the by-law agreement of the community and the protected area law. Therefore, villagers benefit from resources ground provided by the community to support and enhance their daily livelihoods. Yoeun has no child. Her husband passed away since last one year. She and her husband usually went to catch fish together. She rowed the boats and prepared food while her husband deployed gill nets and cast nets. After she husband died, she just can use single fish lines and hooks to catch fish. The fish yield she gets is not enough for daily life. In order to survive, she picks up the wild vegetable *sandan* (kind of sour wild fruit uses in cooking to make sour and tasty soup) and collect firewood from the community forest and sell (personal interview, July 14, 2008)

Gender awareness more or less flows into the community. Both men and women have been provided equal chance to access the resources in order to make a suitable living. Similar to the case of Yoeun, Tim always get into the community forest area to collect firewood for household consumption and to look for leaf, roots, fruits that can use as herb particularly medicine for pregnant women.

"My family comes to live in Toul Neang Sav since 1985, now I'm living alone with my husband because my children have their own homes. My husband is involving in fishing activities and I am traditional midwife in the community. When my husband goes out for fishing, I sometimes go along with him to find some plants, vegetable, leaf, fruits, and fibers that could make medicinal herb" (personal interview, July 13, 2008)

In overall, rights to access to the resources in the community have been recognized without divided into men or women. Women could use and exploit resources as men do. Community always encourages women to get into the community space and access to the resources as the men do especially for women

headed households. For instance, San is a widow with twelve year olds son. She always enters into the community area for fishing and other resources such as plants, wild fruits and firewood. "Before the establishment of the community, I and my son usually went fishing at the pond in the flooded forest that is about 10km far from my home because the flooded forest nearby my house is prohibited. No one allow entering into that area, otherwise they would be fined. Now, I don't go to the previous place anymore. I can catch the fish, collect firewood, and some vegetables from the community" (personal interview, July 15, 2008)

Fish is the vital resources in the community and fishing is the main occupation for villagers in the community. People do fishing for all seasons both in rainy and dry season. They mostly catch fish and some other resources from the community. Traditionally, fishing is men activities. Not many women engage in fishing occupation. The activity, anyhow; constitutes or limits the ability of women to access to the primary resources in the community. The reason raised by Vy "No one in my family do fishing. My husband is the teacher here. I have my grocery shop and I do not need to go for fishing. Anyhow, I go to the community area for firewood collection and sometimes fruits and vegetables when I am free.

The cases illustrate that most women users have not been allocated for the primary resources or the main resources for instance fishing ground of the community because they are not actively participate in the fishing activity which is the key occupation in the area. Other reason that they could not get fully access to the resources area probably is the far distance between the locations of resources ground and residents as it requires more times and expenses to go and back. According to Pov, she has explained that:

"My house is located far from the community area. I could not afford for the travelling expense of the petrol if I go there because now the price of it is so high. Anyway, there is a lot of fish there and other resources too. I also want to catch fish in that area if my house closes to the community" (personal interview, July 20, 2008)

Although Pov expressed that the distance is the obstacle for her to reach the main resources ground, other problems reveals otherwise. Social status and physical appearance remained difficulty for women regarding to safeness and social views.

According to Pov's husband, "Pov wants to go fishing in the community with the other villagers when they gather and go there together. It is not suitable for her to go out far and stays overnight in the forest" (Pov's husband, July 20, 2008)

Thus, physical conditions of women and social norms toward women obstruct the ability of women to access to and control over the resources. Social construction and security is the main problem for women and girl to go out far distance from home. Division of labor remains unchanged in the community area as well as society. Tasks are already performed and divided into male and female works in which traditional perception considered women to be gentle, stay at home, and do housework while men work outside and usually undertake the heavy tasks. These factors lead to barricade women and girls from accessing to the resources.

As well, security is the other barrier for women and girls. They always try to avoid going to the quite place which consider unsafe for them. For instance in the case of Pov, she does fishing while her husband is a public servant. She usually goes to catch fish with her daughter. They simply catch fish in the areas nearby the house. They rarely go far from the village.

"I go fishing in the lake or flooded forest behind my house. It is just 5 km. I go with my daughter and sometimes do catch alone. It is safe and I can come back early to do other jobs. I think the fish yield is not so different" (personal interview, July 19, 2008)

So far, all villagers are able to get access to the resources ground of the community but the shared benefits they get may not be the same due to their livelihood occupations and individual condition. Distribution and use of these benefits are varying from person to person particularly between women and men based on their possibilities and accessibilities. Anyhow, it assumes that the use and access to the resources have satisfied some needs for women and have directly contributed to their livelihoods.

4.3.4 Community participation

Community participation refers to the involvement of people in community activities, the relations and the roles of community members within the community.

According to the technical guideline on the establishment of community protected area, gender quotas system requires at least 40% of the community members and sub-community members positions are women. Following the government policy on gender mainstreaming in all sectors, women are given the opportunities to involve in the management level of the community. Likewise, the management organizational structure of the CPA has included six women to be as the community committee members and sub-community committee. These women are selected from community election by the consent of all community members.

"We made the announcement to all community members about the election of community and sub-community members and women are encouraged to participation in the election. It was surprised that there were women representatives during the community committee election's day as in normal they rarely participate in the village works. Two women were selected as the member of community committee and other two were selected as the member of sub-community committee. It was the willingness of people" (Tiphat, personal interview, July 23, 2008).

It is clearly show that participation of women in the society through engaging into livelihood activities has made changed the attitude and perspectives of local people particularly women themselves. Women are more actively participate in the community tasks. At the same time, community vision toward women also changes with more understanding about the importance of women in all tasks both in micro and macro level (household and community).

"I volunteered as the candidate for the selection of community and sub-community committees. I though that there should have the representatives in the community because women constitute almost the half of the members of the community. If there are women in the management level, it means that benefits of women also be considered. My husband and neighbors encouraged me to participate in the community works" (Savun, personal interview, July 21. 2008)

Apart from the management position, women are also encouraged to participate in other activities of community such as one woman was recruited as the community cashier. That is because women are always considered to keep and maintain well being of the family. "I was selected as the community cashier. I took responsibilities for keeping and managing the budget of the community. I made the record and report about the expanse to the community committee and community members in every meeting. It is not the hard work; I could manage and control over

it well." (Yun, personal interview, July 21, 2008). The other woman was selected to respond for the education and awareness activities of the community.

"There would be more women participants in the community awareness program, if there are women being as the trainers" (Khhoeun, personal interview, July 13, 2008)

More than this, saving group program is also the key factor contributed to women participation in the community affairs. Women are able to take loans from the community saving group to operate their livelihood activities as they want. Accessibility of women to community loans links women to the community activities.

"Seeing that women constituted almost the half of community members, the committee and the group of consultants of community has decided to create self help group through loaning program hoping them to be more actively engage in the community works and agenda" (Ra, teacher at Toul Neang Sav school, personal interview, July 13, 2008)

However, the goal of gender equality in women sustainable development would not be easy to achieve in the short period of time. The recognition of women is still limited because of the long traditional history of separating women from men and making the male superior. The perception has effected to people view seeing women and men as different position and therefore assumes they are incapable of being equal and women considers as weaker and dominant by men. More than this, women usually reluct to participate in the social work as they think it is not important to them to take apart of the community. In this case, the people perception could be changed based on their understanding about the value of community and gender rights.

"I never take part in the community task. I think it is not importance to me to engage. That is the men job and my husband always participates in all works of the community already" (Yum, personal interview, July 18, 2008).

Lacking of women participation was explained in the household case studies whereas none of women are engaging community work. This is because women have secondary occupations and more reproductive works compared to men. Hean, Yean, Phan are the member of CPA, but they never participate in any activities of the community. Besides the household works, they busy with their supplementary occupations which are also constitute as the main source of income contributes to household survival, for instance; Hean with her banana selling, Yean with fish and pig rearing and fish trading, while Phan spend the whole day at grocery shop. Differently,

absence of Pov in the community work is mainly according to the far distance of her house to the community as she does not have many supplementary jobs as the others.

So far, lacking of women involving in the community work is not caused only by the supplementary occupations that women have done, but also related to the function and position of women that constituted in the organizational management chart of the community. Moreover, there is shortened of the proportion of women in the community leader level and even they are engage but the roles and their positions seem to be left out. There are only four women among fifteen members of community committee and these four are not much involving in the management framework of the community. They mostly are responsible for the administrative and financial work.

"I usually attend the community meetings but I share idea only when the committee members discuss about budget of the community which is my responsibility. I have to report to the community committee and subcommunity committee. If the agenda of the meeting is not related to money, I rarely come. Sometimes I just sent the community budget or expenditure report to them" (Savun, community financer, interviewed, July 12, 2008)

In general, the community tries to integrate women in all community actions likewise included women in the community management level, in community financial management and awareness activities. More than this, some programs are created aiming to increase women participation and to up-grade livelihood. However, women are still excluded in some important activities; for instance, leader of the saving group is the man. In addition, the way that Savun described about her work in the community seems to demonstrate that women in fact have little choice in the managerial activities of the community. Women, therefore, seem need to empower for taking more responsibilities as well as their rights.

4.4 Impacts of CBNRM on gender roles

MoWA of Cambodia (2006) has defined gender roles are the role of both sexes that are expected to fulfill in a society as classified by their virtue of being female or male. Women have a triple role: women undertake reproductive, productive

and community managing activities while men primary undertake productive and community politics activities.

4.4.1 Productive role

The productive roles include the production of goods and services for income or subsistence. Thus, livelihood activities undertake by the households in the case studies shows that four out of five men engage in fishing activities as the main occupation while there is only one family which woman does fishing. It is also found that the majority of women actively participate in the secondary occupations particularly in the market activities and agriculture. That is because of the social construction that assigns selling and nearer workplaces is a women's job whereas the heavier and far job is men's job. So far, women also do catch fish particularly before they get married and before pregnant. Women row the boats while the man deploys gill nets and case nets.

"We always went out for fishing together when children were not born. My wife helped to row the boat and cook. She went sometimes after gave birth to first child but then completely gave up after the second child. Now I go fishing alone" (Khhoeun, personal interview, July 18, 2008)

Therefore, after the establishment of the community, this traditional has not changed. Fishing is the main occupation and remains as men's job. Secondary occupations such as grocery shops, goods selling, farming, fish processing are women's activities. Although women do not actively engage in and have many responsibilities in fishing as men do, women typically more engage in the supplementary livelihood activities that in the wide range contribute to household income. Fish processing, fish and animal rearing, small shop running and other activities are done both on a seasonal basis and regularly making women work for whole day and whole year round.

"My family comes to this village since 1993. I quitted from army force when I got married. I do fishing and smoked fish business. I go out for catching fish everyday. My wife manages the fish. She made dried fish, smoked fish and fish paste for selling. Then, she sells the fish production to the middleman or sometime she brings the fish to the market to sell by herself. We keep some for household use and exchange things in the village" (Hok Yi, personal interview, July 15, 2008)

In the case of women do fishing, they simply catch the fish in the areas nearby the house. They rarely go far from the village as men usually do. Regarding to this, Pov explained "I go fishing in the lake or flooded forest behind my house. It is just only 5km. I go with my daughter and sometimes do catch alone. I think the yield of fish is just the same even I go far or nearby because I could not lift up the heavy instruments" (personal interview, July 19, 2008). Thus, physical condition of women obstructs them to actively participate in fishing activities which is considered as the main occupation of the people in the Toul Neang Sav community.

Moreover, it is found that the division of labor remains the central aspect of gender relations. It assigned the task performances between men and women. The case studies showed that gender roles of women are more flexible in agriculture sector and market activities rather than fishing. With regards to agriculture activities, women and men mostly performed complementary tasks which already divided into male and female works. Men usually undertake heavier tasks. In the rice farming, for instance; men perform a bound of specific activities such as ploughing, threshing rice and irrigation whereas women do sowing and transplanting rice seeding and harvesting mature rice. It is the same in the crops cultivation activities in which when women are responsible for planting and taking care the crops, men usually prepare the ground. Sometime men also help women in harvesting and transporting if the work is considered to be too heavy. Hence, in the case studies, men and women help each other for transplanting and grounding because they have no animal labor force.

"We, the whole family engaged in rice and crops cultivation. We don't have cow or ox for ploughing so we make the ground by hoe. I do the ground the most, my wife do transplanting and harvesting while my son wipes out the insect. For lotus plantation, she engages only in harvesting time. I and the boy transplant seeding and take care of it" (Yum, personal interview, July 18, 2008).

Normally, women are income earners within household. Their income is used to serve family needs such as daily goods, medical care of children etc. One female gardener said that she normally gardens of vegetable all days, whereas her husband paddles and pull grass in the morning and catch fish outside. That is because she doesn't go fishing with her husband and prefer to do the farming and crop cultivation at home. The profit from the crops is little but could help for family daily expenditure (Lam, personal interview, July 15, 2008). Women are now sharing the responsibilities

of the head of household. Similar case is described by Yoeun who is widow and plays as the breadwinners within the household "I and my husband went together for fishing. I help to row the boat and cook. I use hook for fishing while my husband uses gill net. After my husband died, I do catch fish with my little son by using hook. Now, I also plan some crops such as pumpkin, gourd and egg plant for survival" (personal interview, July 14, 2008)

Regarding to collection firewood, the informants said it is undertaken at the same time with fishing and is considered as men's work. Because men go out for fishing the most, they are also the one who collect firewood the most. "When I come back from fishing, I bring back home with some woods for home use but not for everyday. I collect it again when the firewood nearly run out" (Charoeun, personal interview, July 20, 2008). However, women also do collecting firewood if they go for fishing, for example in Pov's case "It is easy to collect the firewood. I usually go to catch fish with my daughter in the lake or flooded forest that is not so far from our house. I collect the firewood from the flooded forest. I cut the death branch of the trees and my daughter pick up the fallen branch on the ground" (personal interview, July 19, 2008)

Another task undertakes by women is rearing livestock. They have primary responsibility for feeding and caring of animals such as pigs, chicken and fish due to this tasks is seen as less skilled work and it is easy and suit for women because they are often at home. "My husband spent most of the time at fishing lot. No one helped me to manage and care pigs and fish that we reared. I have to feed them and clean the pig cages" (Yean, personal interview, July 20, 2008). However, men also help in animal raising if they are free from work. For instance, Veasna always look after the chicken and fish while his wife, Pov goes for fishing.

"Pov goes for catching fish everyday. She is heritages fishing skill from her parent. All of us are depending on her job for living as my salary does not provide enough income for family survival. Free from work, I help to feed and care the fish cage and chicken that we are rearing because my wife and my daughter usually goes out for fishing together. We help each other to earn for living and support the other two children who are now studying at Kompong town" (personal interview, July 19, 2008)

Anyhow, since the establishment of the community women's economic role is expanding include new opportunities in selling goods, livestock rearing or market activities. The participant of women in the secondary occupation activities has changed the demographic profile of communities and increased the income of the households. However, the division of tasks for women and men in practice is quite flexible. The survival of a family is a collaborative and collective responsibility of women, men and children. They have different tasks which are completed to each other. Women are more getting involved in the income generated activities due to the household economic pressure. Frequently, women do not feel inferior to men as gender inequality is hidden by social norms that traditionally allocate the roles of women and men.

4.4.2 Reproductive role

The reproductive role includes child-bearing responsibilities and domestic tasks that required guaranteeing the care, maintenance and reproduction of the labor force. For instance, the reproductive roles in the community consist of food preparation, water, fuel collection, shopping, housekeeping, and family healthcare. These activities are mostly done by women and girls. It is found in the case studies that women are helped by their daughters, likewise; Yean's daughter who has quitted school in order to help Yean in housework and look after the two young. Yean's daughter said:

"My father goes fishing everyday. Sometime he goes for two or three days. My mother has to take care of fish and pigs. After she got the two, I left school for housework and look after my youngers" (personal interview, July 20, 2008)

Men do housework only during their wife pregnant; give birth and when the children are still young. They usually go fishing in early morning and come back before lunch and go again at late afternoon and return back at evening. They do housework occasionally and by chance. If they have other works outside, they completely untouched housework. Khhoeun said that he used to do housework as well, but he rarely do it since he become the vice chief of the CPA. There are many works to do in the community as the community itself is just established. In some cases, men do housework while they are jobless or while the wife is sick. One

fisherman said that his wife made up for the bride and groom for their wedding for almost 2 years. At that time he was unemployed. Thus, he washed dishes, cleaned the house whereas his wife cooked for breakfast and dinner. However, he starts fishing and crops cultivation after his wife is diabetic. He asks his wife to stay at home and does some lighter works such as cook and wipe out the insects from the vegetable they planed in the land surrounding the house (Khhom, personal interview, July 18, 2008).

However, men seem more take part in domestic work after the establishment of the community. The field data showed that women do most of the cooking and laundry whereas men wash dishes and clean the house. This is because now more women also do reproductive works compare to the previous time. Moreover, engaging of men in reproductive works is also regarding to the life cycle of men. Men normally retire earlier than women because they early start working outside the home while women take care of children. Therefore, men do housework at home while women involve in livestock rearing or trade in the market or at home. One male respondent said that he did fishing and sold fish to the middlemen in the village for more than 10 years. After he felt a muscle spam, his children asked him to retire and stay at home. While his wife sells fruits on the boat for the whole day, he does domestic work at home (Phal, personal interview, July 16, 2008). The same case is occurred to Theary's family in which her husband response for housework while she and her children engage in earning activities.

"In the past, I sold noodle and coffee at home to the nearby neighbors, whereas, my husband was a fisherman. He worked for 15 years. However, my children asked him to retire after the boat was turned over and both of boat and him sunk into the river during he was doing fishing. Nowadays, my children cultivate lotus and grow some crops. I still sell the noodle while my husband does housework. I took loans from the community and expand my noodle selling. I sell it on the boat along Stung Sen River which I could benefit more than I sold it at home" (personal interview, July 20, 2008)

With regarding to the case studies, women who are engaging in the secondary occupations spend less time in housework than before. Men, more or less have to involve in the domestic work as he has more free time than women. Moeun, apart from fishing, he usually clean house; washes dishes and laundry while Phan cook in the morning and selling goods the whole day. She often starts the shop earlier

morning and closes late evening. "My wife is busy with the grocery shop the whole day. She often opens the shop earlier and close late. She just can cook but could not do housework. I clean the house and wash dishes when my daughter goes out for school. I would get relax when my daughter come back and does all these things" (personal interview, July 16, 2008).

More from the case studies about reproductive work of men and women have been noticed that only Moeun and Vort help their wives regularly, especially since their wives perform secondary occupations. For Vort, he usually did nothing for housework during his wife had no job. However, his attitude is changed when his wife starting the new small selling activities which could provide the income to the family. Apart from fishing, he looks after the small children and cleans the house while Hean is making and selling grill banana.

"I go out fishing everyday. Last time, I never did any housework because my wife stayed at home the whole day. She did all the domestic works include looked after the small children. Now, she has the income job and could not finish all housework like before. I help her some works as I could. Sometime I clean the dishes and house. Sometimes I look after the children" (personal interview, July 17, 2008)

With regards to the research data, men now do more domestic works than before. However, interviews revealed that women still do reproductive work the most. In this situation, gender distinctions are commonly justified renationalized by belief about the importance of women's role in child bearing and motherhood. Even they have a waged job outside the home; women's primary occupation is wife and mother. Yean said that "When my husband worked at fishing lot, he rarely touched the housework. Most of his time was spend at there. I did all the works at home include fish and pig rearing. Now he retires from fishing lot and does fishing. He does housework and feed the animal when I go out for fishing trade business. However, I often share his domestic work since housework is women's job. I cannot leave all of reproductive work to him" (personal interview, July 20, 2008)

As in Pov's case, Veasna does help in animal rearing – feeding and clean chicken cage while Pov does fishing outside home. Though, he does little housework and mostly leaves the tasks with daughter.

"I don't have much time to help doing housework. I feed the chicken and fish before I go to work in the morning. When I come back, I am busy again with the community saving group tasks. But I help to clean the animal cages and sometimes clean the house. My daughter cooks, washes dishes and clothes when she does not go fishing with her mother" (personal interview, July 19, 2008).

Frequently women will enter into the market as an extension of household tasks that they perform as well as to make possible the economic survival of the family and particularly to secure the survival of the children. However, earning capacity makes self-esteem to women since they are the breadwinners. Vy own the grocery shop whereas her husband is the teacher of Toul Neang Sav primary school said that she is the main income earner. The family could not rely on the salary of her husband. Therefore, she is able to control over the budget flow in the household. However, she feels inequality with her husband regarding to workforce. Whereas, she has to do supplementary job if her income is not enough for the household expenditure, her husband does nothing. So, she cannot fully benefit from productive work (personal interview, July 21, 2008). Another female grocer mentioned:

"Normally, I sell fruits and some vegetable at home. I have to feed my grandchildren during selling because my daughter works in the factory at the town. Taking care of children is a hard job as I could not go out side home and sell on the boat or do domestic work. Although it is hard and tired job, I prefer to help my daughter. Sometimes, I can ask my husband to look after a baby when he is free from fishing in that case I cook or wash clothes" (Eao, personal interview, July 21, 2008)

Thus, reproductive work is crucial for family maintenance and survival, yet it is almost always the responsibility of women and girls. Although both men and women engage in work outside the home, women have secondary occupations more than men. Men focus only on their primary work and do other things after completed the main work. It is different from women, where they do domestic work at the same time with earning income job. Therefore, women do many works at the same time. Women have work loads in which they alone have to do both main, supplementary occupations and reproductive work. In addition, the patterned links between women's economic activities and household dynamics demonstrate that women may seek work in the secondary occupations as a mean of achieving or maintaining autonomy, increasing income of family and protecting children. According to the case studies and other respondents showed that women have the main responsibility of

maintenance the well-being of the family members. Therefore, women still work harder than men because they have to look after a baby or earning job as well as doing domestic works, while her husband often sleeps or chit chat after come back from fishing.

4.4.3 Community work

In most societies women primarily have a triple role while men primarily undertake a twin role. Even women and men engage in the community activities, they seem undertake different responsibilities. Women mostly undertake community management activities whereas men hold community politics activities. Moser (1994) has referred community management roles to those activities that carry out mainly by women at the community level, as an extension of their reproductive role, to ensure the provision and maintenance of scare resource of collective consumption such as water, health care and education. This is voluntary unpaid work which undertaken in free time. On the other hand, community politics role is defined as the activities mostly undertake by men at the community level, organizing at the formal political level, often within the framework of national policy and politic.

With regards to the collected data from the field, it is showed that the employment opportunities offered by the community have reduced women's economic dependency on the family. At the same time, there is representing a new freedom for women that have improved the social position of them as well as the changes in community's structure. The community has also opened up the chance for women to engage in the community tasks.

"There are 349 people being as the community members in which 206 people are women. 6 women are chosen to participate in the community management level which they have to come and join in any tasks of the community" (Khhoeun, personal interview, July 13, 2008).

It is also found that male and female perform different tasks in the community Women usually work with the administrative management activities such as community budget management, reporting, the community meeting arrangement and documentation etc. whereas men undertake policy arrangement, work plan establishment, patrolling and conflict resolution. "I help the community chief and

deputy chief. I arrange and keep all the documents related to the community works. I organize and facilitate the meetings and education or training activities and report to the community members as the whole" (Ratha, personal interview, July 20, 2008). The same case is said by Yun, the community accountant:

"I and my family come to live in this village almost 10 years. Before I participate in the community, I was the grade 2 teacher at Toul Neang Sav primary school. My husband asked me to retired when I got pregnant. Our house is far from the school and it was very difficult to go and back. Now, I and my family are the members of the community. The community has selected me as the cashier of the community. I control and manage the budget and other expenditures of the community and report to the head of community as well as community members" (personal interview, July 21, 2008).

It is observed that women are placed in different occupations and positions from men. Women carry out the work which is less decision making. Therefore, they are mostly control over lower level work with few dominated opportunities. The role of women in the community undertake according to the nature characteristic of women who considered as neatness, soft and doing something carefully. Moreover, the division of women work also links with gender stereotypes and traditional gender roles which constitute long time in people belief and practices. Women are in fact particularly suite to take on certain position, for example involving in caring related work and service. This is not generally desirable; it is particularly because of most women gender stereotypical occupations are lower level job and do not include key managerial positions.

On the other hand, it is noticed that the percentages of women engage in the community affairs are much less than men. Only 6 out of 206 women community members place in the community management level. That is because of the situation that allows women to enter into the community work based on traditional roles and their own confidence to fulfill them. For example, one fisherman housewife said:

"The outside work is the job of men. They can do hard work easily because they are strong and full of energy. Women are weak. We use to do only housework. We could not do well outside work like the man" (Hak, personal interview, July 15, 2008).

The same answer raised by Yum whose husband is the community vice chief. She said she also the community members but she never engages in the community affairs. Her husband, besides fishing, spends most of the time at the community station and work there. It is not necessary whether she take part in the community tasks or not.

However, the participation of women in the community activities could play a key role in challenging gender stereotype and tradition. It could lead to change in people perspectives and opinions about gender relations especially the important place of women in the household as well as in the community. "There is no salary for community work. It is voluntary work from the community members. However, Ratha and Savun they are very good and help the community a lot. They are well prepared in organizing documentary tasks and budget of the community. The administrative procedure of the community is run smooth because of them" (So Sun, personal interview, July 20, 2008)

With regarding to the men position in the community, it is found that men hold higher rank in the management level of the community. Among 11 community committee members, there are 9 people are men. They frequently take part in important tasks of the community especially the planning and decision making within the community.

"I join with other committee members in facilitation the tasks of the community, find better way or solution intertwine with the progress of community management, collaborate with local authority and other organizations to support the implementation of the community in both of technical or budget support. In addition, we lead the community meeting and join together with the rangers of the protected area in controlling any illegal activities that may happen in the community" (Mok Khhoeun, community vice head, personal interview, July 18, 2008).

Therefore, the social construction defines men as the main workforce in the society and particularly in household. Men's gender role and their behavior are greater affected by their status in the society and the image within the people perception (LSCW, 2005). Moreover, the physical appearance of men provides possibilities to them to participate in the heavy and risky tasks. With this sensitivity, men become the most dominant person and occupy the significant position among the two gender sex. As an example, one fisherman said:

"I and some male community members always take part in guarding. Patrolling the community is community member's responsibilities; however my wife and women in the community never join in these activities. Some are busy with earning jobs and some are busy with child caring, housework etc. Furthermore, guardian is belonging to men's job. That is the obligation of the men" (Tim, personal interview, July 15, 2008).

It is also observed that while men go out for patrolling and conflict compromising, women act as environment promoter giving education and awareness regarding to how to use, control and maintain the resources in sustainable way. In this sense, men usually respond for the travelling, far distance and heavy activities while women maintain the activities that are close, in house or office work. That is because social and cultural construction that influenced on gender's roles and responsibilities. Men and women are differently engage in community work. Since, social constructs that men are associated with social affairs, most of men are engaged in manageable work of the community. Men control almost all the decision making activities whereas, women participate in administration activities or support tasks.

Generally, women seem do less productive works after the establishment of the community or since they get involve in the livelihood earning activities. At the same time, men are sharing responsibilities in domestic works while women work outside. However, it is noticed that women and men do works differently due to some existed social factors such as social norm, culture especially the perception of people regarding to the works, roles and positions in household and in the society. These aspects limit the participation of women in the community and remain as constrains for promoting and mainstreaming gender equality in the community level.

CHAPTER 5

CONCLUSION

5.1 Summary of findings

Community based natural resources management (CBNRM) is considered as a significant approach in the conservation of natural resources and sustainability of rural livelihoods in Cambodia. It is regarded as one of major strategy helps to reduce poverty, improve socio-economic of local people and sustainable mechanism of natural resources. A key element of CBRNM is that the community is organized into some structure with the approval of the local authority and relevant institutions. Thus, it is more likely a co-management approach which involves sharing responsibilities between government and local community.

CBNRM has been formulated in Toul Neang Sav village, Tonle Sap region, through the establishment of the Toul Neang Sav Community Protected Area. It has been initiated by collaboration among local community, authority and technical department of local government and with facilitation by GDANCP/MoE. In 2005, about 502 hectares of Stung Sen Core Area has been released resulting from the depletion of the resources in the nearby area which caused by over fishing including the use of illegal fishing gears. In response to this dilemma, CPA has been set up with the purposes of sharing the benefits from natural resources particularly fisheries resources for local communities as well as increasing local communities in participating in resources management.

Villagers in Toul Neang Sav village were voluntarily registered as the community members. Local authority build up the Group of Consultants and technical government staffs formed the Group of Facilitators. The two groups have set up in order to provide supports and facilitate all of the works of the community. The groups also help community to elect its community committees and sub-community committees which were selected through voting from the community members with the majority voices. All together join and arrange the community organizational management structure and set up the roles and responsibilities of all community components.

The community committees and sub-committees take responsible for the overall tasks in the community in order to secure the livelihood of people and well-being of the community including rights to access and control over resources of the people, the facilitation of all kinds of community works as well as the communication and collaboration with local authority and other related agencies. The community groups are taken care of each division such as socio-economic, administration, environmental education and awareness, and patrolling division. At the same time, community members are also take part in guarding, education awareness and monthly contribution.

The members of the group of consultants, facilitators and community committees, sub-community committees organize consultation meetings with community members in making up the community by-law agreement, community's work plan which are in align with the Stung Sen Core Area work plan and the protected area law. The community can also set up other internal rules or principles by itself with discussing with the local authority and the director of the protected area.

Thus, it is noticed that to what extent there is a positive change among the local communities regarding to their living conditions. After the establishment of the community, people are more secure about their occupations which maintain their daily lives. That is because the community provides freedom for people to use, to access to the resources ground (fish and forest production) and to control over the resources in the community by themselves. Therefore, people are becoming the direct user and owner of the resources. They gain more understandings regarding to the importance and benefits of natural resources and they actively participate in conservation, protection, management, and use of resource in the good manner. As the result of these activities, crime and other illegal activities used to happen in the community area has decreased which lead to sustain the community resources for long term use and to improve the living conditions of people.

Moreover, the community livelihood up-grading program aims to create the secondary or supplementary activities have also supported the livelihood of villagers in a sustainable way. The community saving group or self help group helps villagers to set up the new livelihood options or to expand their existing occupation apart from

fishing activities in order to increase the family income. The community charity fund collected from the contribution of community members, non-community members, supporters, and interest from the community loan are provided to the vulnerable community members, old people and poor widows to restore their living. The case study found that the loan program is much concerned about the women rather than men. It aims to improve better understanding about the importance of women and their daily livelihood activities by giving women the first priority to take loan to starting new jobs such as small business shop or rearing animals.

The community provides opportunities for women to engage in many livelihood activities. Various kinds of livelihood options open for women to take part as income distributors for the family in order to increase family living standard. As the result, women are able to integrate in family economic and lead to gain more power in household management. They are able to control family income as well as household decision making. Apart from household portion, women also participate in the community affairs. Women quotas have been distributed in the management organizational structure of the community. They have chance to raise about their concerns, opinions and rights regarding to accessibility of resources and other activities in the community.

Regarding to the gender roles of men and women in the community, it is found that CBNRM bring about the changes in the role of women both in house and community affairs as it has mentioned in the previous chapter. The employment opportunities provided by the community have lessened women's economic dependency on the family and has improved the social and position for many women. Women more engaged in productive activities in order to ensure the survival of family especially the survival of the children. While women involve in income generating activities, they then less respond for the reproductive work. The field data showed that when women work outside home, men do housework and sometimes help by daughter. Therefore, the division of labor within household is changed. It have been noticed that apart from these two roles, there are changes in community structure. Women are given chance to participate in the community and to hold some specific position in the community affairs. However, women roles are mainly focus on supporting tasks whereas men maintain most of decision-making activities.

5.2 Discussion of findings

In Cambodia, CBNRM stands to play a pivotal role in shaping a future of social, ecological and economic well-being. Within this context, it is questioned whether CBNRM could help to secure the livelihoods of people? At the same time, can it help to equitable the roles of women and men within the community? According to the case studies and the data from the field, although the traditional occupations of local people remain unchanged, the livelihood conditions of them are being secure. Fishing is the primary occupation plus a combination of agriculture activities such as rice/vegetable and crop plantation "chamkar", livestock and forest related activities. Local communities are gaining more freedom to use, to access to, control over and manage the resources by themselves. They are now the direct users who own the resources property of the community.

Therefore, the initiative of Toul Neang Sao community provides the positive impacts on the local community regarding to rights, freedom, capacity building, livelihoods and the social relationship among men and women in the community. The implementation and the management tasks of the community provide opportunities for people to maintain and expand the secondary business activities which have supported the livelihood of villagers in a sustainable way. In align with increasing living conditions, there are increasing more understanding about how to manage, conserve and use the resources as well as about the causes of decline in fisheries, forestry and other resources. As the result, the illegal fishing has also been reduced and leads to sustain the resources.

Following the livelihood sustaining, it is observed that women gain more opportunities to engage in household economic distribution which lead to increase the ability in managing household tasks and decision making. Even women do not do fishing as men do, they more engage in other occupations such as livestock, farming and crop cultivation, and small scale business activities. All these works are contributed to the family survival. As the result, when women more engage in productive activities, the reproductive role of women is being share with the men. Hence, the domestic work is still the combination of women, men and children. Apart from domestic and productive work, women are encouraged to participate in the

community affairs. They manage some specific tasks of the community. Thus, the relationship between women and men improve due to the integration of women in income generating activities, ability to use and to access to resources and community management participation.

However, it is observed that there are some weakness and obstacles within the community. Moreover, inequality between women and men remain happen in the family as well as in the community as following;

a) The implementation of the CPA

CBNRM usually refers to managing of natural resources by the communities with the collaboration and involvement of relevant stakeholders who mostly belong to provincial and national technical departments. It is more related to the comanagement approach between the government and the community regarding to sustainable resources management and up-grading local community livelihood. In practice, therefore, it is more likely to be government control rather than management cooperative. The community itself is not self reliance in management activities and depends mostly on supporting from the state. Government is still the one who makes decision, for instance; the community by-laws agreement and work plan have to approve by the government before applying in the community. That is probably because of the community is situated in the protected area which under control by the government or it is probably due to the limitation of community experience and knowledge regarding to resources management.

On the other hand, it is also noticed that CBNRM practiced areas are mostly in remote area or the new area where people are deeply dependent on the resources. Hence, most of people face difficulties in their livelihood activities. Availability of time to participate in the community activities such as patrolling or meeting is limited. More than this, community based resources management is still new the concept for local communities. Villagers consider the community is under the management of a village chief or the institutional control. Without clearly interpretation about the approach, local communities are expected to get direct benefits rather than involve in managing resources in sustainable way.

b) Inaccessibility to community loan, charity fund and livelihood training

After the community was established, more livelihood options are introduced and implemented within community. It is the way that community helps people to be less dependent on fishing activities and also helps them to up-grade their livelihoods. Community loan is provided in order to reach this purpose. Anyhow, access to loan of saving group is not overall. Loans provide only to the registered members of the saving group who have put their money in saving. Non saving group members could not take the loan from the community for their better survival and mostly the non-saving group members are among the poor community members. Moreover, there is no training opportunities provide by the community regarding to the livelihood options. People make new occupations or expand their livelihood activities based on their experiences. Some villagers are getting more debt because of falling down of business resulting in using the loan in ineffectively and unsustainable way.

The same as the loans, the charity fund in the community is limited to the majority of the poor community members. That is because of lacking capacity of the community in financial management. The community is not able to collect the monthly fee/contribution from all community members. More than this, the community does not have a clear rule to collect money from non-community members who come to exploit the resources of the community. Financial resources of the community are shortened and unable to make a smooth progress to money distribution for the whole community members.

c) The social construction of female and male tasks

Gender inequality remains happen in the community as it is hidden by the traditionally allocate roles and responsibilities of women and men. Women's role and degree of making decision in the family is based on the ability of women in income distribution. It means that the more women can control and manage the economic production, the more power and respect women can gain. However, in reality, women are not independent in family decision making due to the traditional practice and social perception. Women's main responsibility is to maintain the well being of family members. Therefore, some women engage in secondary occupations as an

extension of household tasks they perform as well as to make possible the economic survival of family especially to secure the survival of their children. Women still respond for domestic work even they have outside jobs as it is constructed by the traditional women gender roles which constituted the housework is women's work.

Similarly, the participation of women in the community affairs is also definite and influenced by the social construction. There is less proportion of women representative in the management level of the community. Women mostly undertake the simple tasks which related to administration or supporting staffs whereas men much carry out the management tasks related to decision-making. Women, therefore, seem more often to know their responsibilities rather than their rights.

d) Unequal access to the main resources among men and women

Sharing benefits of the community regarding to the use and access to resources is provided by the community. Yet, majority of women still excluded from the main resources of the community for instance fish and fishing ground. Most of household case studies clearly illustrate that woman users have been allocated to the insignificant resources. That is due to the physical conditions of women and the livelihood activities that women involved. Fish is the main vital resources in the community, however; it is the men activities and mostly do by men.

e) Unequal decision making within household and community

Both husband and wife have to discuss about the family tasks especially regarding to the household expenditure. It is noticed that only women who engage in the household income generating activities have influenced their voice in family decision-making. However, men normally make the final decision whether what things the family need to buy or what kind of occupations the family need. The same as household, women's decision making within community is very rare. That is probably because of social construction which constitutes women to be gentle and obedient within the family as well as society. In addition, women in general are lacking of confidence to fulfill the jobs in high position or the new tasks that they never meet before.

f) The workload of women in terms of supplementary occupation

Normally, women have the supplementary occupations more than men. Before the establishment of the community, most of women work inside home regarding to domestic work, farming and crop cultivation within the land around their houses. Some women go along with their husbands for fishing. After the community formed, more women are starting to engage in livestock activities and small scale business activities but they are still working in the household activities because it requires the family labor. Therefore, women who take part in family economic activities have to trade in the morning and do housework at evening or night time. Generally, women still work hard than men and they have many burdens as they do both productive work and reproductive work.

5.3 Conclusion

Therefore, CBNRM is regarding as one kind of social movement which opens up the opportunities for local communities to up-grading their livelihood conditions through social services contribute by the community. For instance these chances include ability to access to the community saving group, charity fund, and community resources as well as the participation in community works such as joined activities in managing and controlling over resources etc. Moreover, CBNRM has also contributed to the change in social structure regarding to the social relationship between men and women within household and community. Gender roles are being transformed due to more percentages of women engage in income generating activities of the family. While women share responsibilities in family economic situation, they do less productive works. Thus, men also share responsibilities and tasks in domestic activities.

Though, through the case studies and the field data, it is found that the implementation of CBNRM at the community level still need to improve due to the community itself is not quite independent in term of its management activities. It depends mostly on supporting from the government and aid agencies regarding to both technical and financial support. On the other hand, the gender inequality among women and men remain occurring in the community. Social structure is changing

follow by the movement of society but the relationship and gender roles of women and men are still not getting better. As the whole, the change is more occurring in the individual or household level rather than in the community. There is lacking or less percentage of women engaging in the community activities. Thus, it needs to improve and strengthen the performance of CBNRM in order to increase participation of women within community or society rather than only in household.



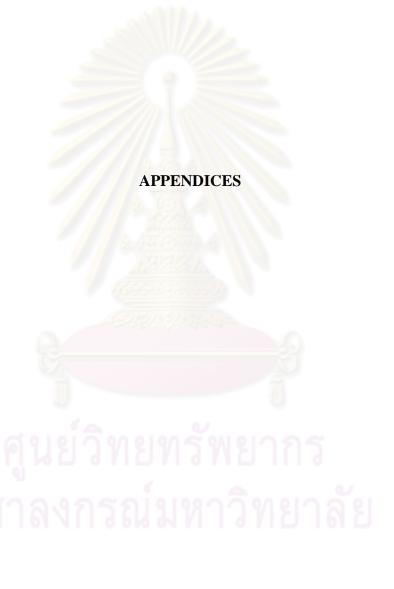
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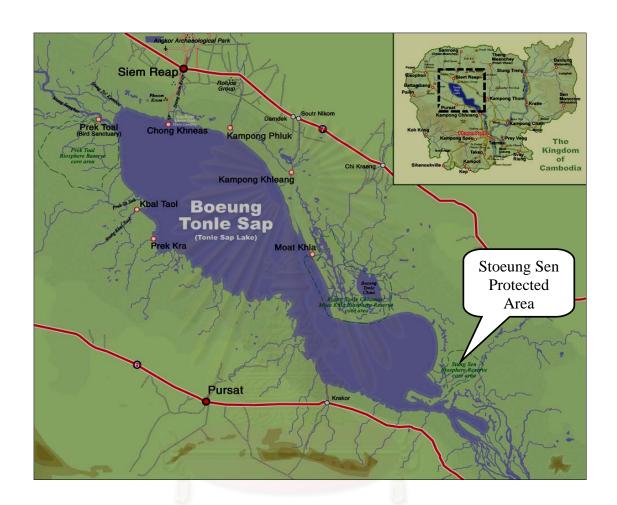
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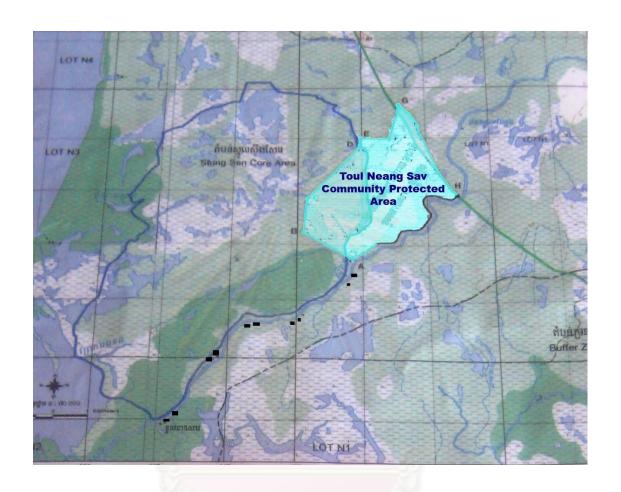


APPENDIX A MAP OF STUNG SEN CORE AREA



ศูนย์วิทยทรัพยากร จุฬาลงกรณ์มหาวิทยาลัย

APPENDIX B MAP OF TOUL NEANG SAV COMMUNITY PROTECTED AREA



ศูนย์วิทยทรัพยากร จุฬาลงกรณ์มหาวิทยาลัย

APPENDIX C

CHECKLIST GUIDE FOR IN-DEPTH INTERVIEW, SEMI-STRUCTURE INTERVIEW WITH CASE STUDY HOUSEHOLDS

Community members

- 1- When/why do you get involve in the community?
- 2- Does the CBNRM improve your quality of life? Yes/No How?
- 3- Do you change your occupations after CBNRM?
- 4- What is your main occupation before participate in CBNRM?
- 5- What do you/your partner do for daily survival?
- 6- Do you and your partners have supplementary occupations?
- 7- Do you think workload has increased or decreased? If increased, do your partners share work?
- 8- How do you/your partner manage the money from income?
- 9- Has the income derived from CBNRM better respond to your needs?
- 10- Do you have rights to access and control over the resources?
- 11- What are you/your partner opportunities, roles and responsibilities in community management?
- 12- What kinds of tasks are you/your partner mostly done?
- 13- What are the problems you identify under CBNRM?
- 14- Do you/your partner have any conflict with the neighbors regarding to the rights to access and control resources?
- 15- Do you think that women get benefits from involving in the community? If Yes, How?
- 16- What are the advantages women receive?
- 17- What are the rules and regulations in the community? Are these principles affected your work?
- 18- Have you taken the loans from community?
- 19- How much do you take the loans? (time/month)
- 20- How do you use the loans?
- 21- Do you/your partner get any help from the local government? Does the local government guarantee the rights to access the resources for community members?
- 22- Are there any outsider supporters or donors? If yes, what do they do?

Protected area director, rangers and government officers

- 1. What is the history of Stoeung Sen community protected area?
- 2. What is the purpose of establishing this area as CPA?
- 3. Do people participate in CBNRM?
- 4. Does the CBNRM improve local people's quality of life? Yes/No How?
- 5. Do local people change their occupations after CBNRM?
- 6. What are the traditional/previous occupations in community?
- 7. What are the present occupations after CBNRM?
- 8. What are the advantages and disadvantages women receive because of involving in the community?
- 9. What are men and women occupation, opportunities, roles and responsibilities?
- 10. Do you think workload has increased or decreased for both men and women?
- 11. What kinds of tasks are most done by men and women?
- 12. Do men and women have the same supplementary occupations?
- 13. If women have to do both main and supplementary jobs, do their husbands share domestic work?
- 14. How do men and women manage the money from their income?
- 15. Do men and women face the same problem related to CBNRM?
- 16. How many stakeholders involve in making CPA management plan and rules? Who are directly and indirectly involve in CPA?
- 17. What are the rules and regulations in the community?
- 18. Are the rules and regulations affecting people life?
- 19. What are the difficulties which community faces during running CBNRM?
- 20. What are the roles of local government officers in improving the people's participation in community management?
- 21. Are there any conflicts among people regarding to the rights to access and control over resources?
- 22. What is the future prospect of the community?

BIOGRAPHY

Sophorn was born in Siem Reap province but grew up in Phnom Penh, Cambodia. She holds two Bachelor's degrees, one in International Business English and the second in Khmer Literature at the Royal University of Phnom Penh. Sophorn joined the General Department of Administration for Nature Conservation and Protection at the Ministry of the Environment in late 1999. She was later promoted in 2004 to the position of Vice Chief Officer for the Administration and Training Office and then Chief of office in 2007. Sophorn used to be a Counterpart Staff for the Tonle Sap Environmental Management Project, Provided by Asian Development Bank (ADB) financed loan to the Royal Government of Cambodia. As CBNRM is a new concept in Cambodia, she would like to investigate the implementation of this new approach especially in the community level with special attention to the prospective outcomes of CBNRM towards the sustainability of women's and men's livelihoods as well as their roles in the family and within the community.

