Overseas Fieldwork Report 2012:

Kampong Thom Province, Cambodia



Graduate School of International Development Nagoya University **Overseas Fieldwork Report 2012**

Kampong Thom Province, Cambodia

March 2013 Graduate School of International Development Nagoya University Nagoya, Japan

Introduction

The twenty-first Overseas Fieldwork (OFW 2012) of the Graduate School of International Development (GSID), Nagoya University, was carried out in Kampong Thom Province, Cambodia from August 26 to September 9 in 2012. Royal University of Phnom Penh (RUPP) kindly accepted the OFW this year, putting aside the past OFWs in 2005, 2006 and 2007. Based on the long cherished relationship, the OFW 2012 was managed smoothly and it contributed to further strengthen our tie with this prestigious university in Cambodia.

Considering the relevance of topics to the Kampong Thom context and the expertise of GSID professors, we divided 23 students into four working groups, i.e., (WG1) economy, (WG2) education, (WG3) migration, and (WG4) health, for the purpose of studying rural developments of the area in an integrated manner. This year, students conducted their research in villages of Sambor Commune, Kampong Thom Province. On September 8, before the departure from Phnom Penh, they shared their research findings with professors and students of RUPP.

Reflecting comments and advice received at the presentation and on other occasions, participants tried to elaborate their work in the final product. The present volume is a collection of the working group reports.

Acknowledgements

The committee of OFW 2012 is indebted to many people and institutions both in Cambodia and Japan for the successful completion of this year's program.

Our appreciation must be directed first to the people of Sambor Commune in Kampong Thom Province. We are especially grateful to local authorities including the provincial governor, village chiefs, staff members of government offices and other relevant organizations for their generous assistance and cordial hospitality. We also would like to express our sincere gratitude to all of those who kindly provided us precious information in the interviews. We could not have accomplished the OFW successfully without their kind supports.

Next, our appreciation goes to the students and advisors of Royal University of Phnom Penh (RUPP). We would like to express our sincere appreciation to Dr. Ngin Chanrith, Dr. Seak Sophat, Prof. Hoy Sereivathanak Reasey, Prof. San Vibol and Ms. Hak Sochanny. Participants of the OFW 2012 received tremendous support from staff and ten students of RUPP during the field research. We are grateful for their dedicated cooperation not only as advisors and interpreters but also as joint researchers.

Last but not least, we are very grateful to those who provided valuable lectures to our participants in the preparatory seminar of OFW 2012: Prof. Koung Teilee of the Graduate School of Law, Nagoya University, Prof. Satoru Kobayashi of Kyoto University, Prof. Kenjiro Yagura of Hannan University and Mr. Touch Sorana of GSID. We also would like to thank Ms. Erin Sakakibara for the English editing of this volume.

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DID: Department of International Development;

DICOS: Department of International Cooperation;

DICOM: Department of International Communication.

Program of OFW 2011

Preparatory Seminar at GSID

	Date	Title of the Lecture and the Lecturer
1	May 9 (Wed.)	"Introduction to the Year 2012 OFW" by Prof. Higashimura and Prof. Penghuy of GSID.
1	14:45-16:15	Presentation by OFW 2011 participants.
	May 16 (Wed.)	"Introduction to Contemporary History and Administration System of Cambodia" By
2	14:45-16:15	Prof. Koung Teilee, Graduate School of Law, Nagoya University
	May 23 (Wed.)	"Research Sites Introduction"
3	14:45-16:15	By Prof. Seak Sophat, Royal University of Phnom Penh, Visiting Researcher to GSID.
	May 30 (Wed.)	"Research in Cambodian Village" (Socio-cultural aspect of community)
4	14:45-16:15	By Prof. Satoru Kobayashi, Kyoto University.
~	June 6 (Wed.)	"Introduction to Cambodian Education"
5	14:45-16:15	By Mr. Touch Sorana (M2 student at GSID)
	June 13 (Wed.)	"Village Economy in Cambodia"
6	14:45-16:15	By Prof. Kenjiro Yagura, Hannan University.
7	June 20 (Wed.)	Guidance on Research Proposal Writing.
/	14:45-16:15	By Participants and Group Advisors
8	June 27 (Wed.)	"Introduction to Cambodian Macro Economy"
0	14:45-16:15	By Prof. Ngov Penghuy, GSID.
9	July 4 (Wed.)	"Natural Resource Management in Cambodia"
9	14:45-16:15	By Prof. Seak Sophat, Royal University of Phnom Penh, Visiting Researcher to GSID.
10	July 11 (Wed.)	"Research Ethics"
10	14:45-16:15	By Prof. Koichi Usami, GSID
11	July 18 (Wed.)	Presentation of Research Plans by WGs (15 min presentation by each WG)
11	14:45-16:15	resentation of Research Flans by wes (15 min presentation by each we)
12	July 25 (Wed.)	Finalization of Research Plan by Students
12	14:45-16:15	r manzation of Research F lan by Students

Interim Presentation of Research Findings in Cambodia

The interim presentation of research findings was held at the Royal University of Phnom Penh on Sep. 8th, 2012. Each WG presented for 20 minutes and followed by Q&A session by the participants.

Presentation of Research Findings in GSID

The presentation of research findings was held at GSID by each working group to disseminate and to collect feedback from colleagues on Oct. 10, 2012.

Date	Activities
	8:30 Meeting at Chubu International Airport
	11:00 Departure from Nagoya (TG645)
Aug. 26 (Sun.)	15:45 Arrival at Bangkok (transit)
	18:25 Departure from Bangkok (TG584)
	19:40 Arrival at Phnom Penh (Accommodation:Mondulkiri Boutique Hotel)
Aug. 27 (Mon.)	Moving to Kampong Thom Provice (All WGs); Courtesy Visit to Kampong Thom Governor (All WGs), Get-to-know-each-other Gathering (all WGs)
Aug. 28 (Tue.)	Director of Forestry Cantonment, Sambor Commune Chief (WG1); Director of Department of Education, Chramah Primary School (WG2); Director of Department of Labor & Training and Social Affairs (WG3); Director of Department of Health, Sambor Commune Chief (WG4).
Aug. 29 (Wed.)	Sambor Villagers (WG1); Prek Primary School (WG2); Kompong Chheur Teal migrant families (WG3); Sambor Village Chief, Villagers (WG4)
Aug. 30 (Thu.)	Koun Kaek Villagers (WG1); Cher Chrum Primary School (WG2); Kompong Chheur Teal and Atsu Villages' migrants' families (WG3); Kampong Chheur Teal Health Center, Traditional Healers, etc (WG4).
Aug. 31 (Fri.)	Chramah Villagers (WG1); Kampong Chheur Teal Primary School (WG2); Atsu Village migrant families (WG3); Kampong Chheur Teal Villagers (WG4).
Sep. 1 (Sat.)	Free Activities
Sep. 2 (Sun.)	Free Activities
Sep. 3 (Mon.)	Tropang Chruk Villagers (WG1); Or Kruke Primary School (WG2); Char Village non-migrant families (WG3); Koun Kaek Village's traditional healer, drug retailers, etc (WG4).
Sep. 4 (Tue.)	Community Forest in Koun Kaek, Chramah, Tropang Chruk Villages (WG1); Atsu Primary School (WG2); Chhra Mas Village's non-migrants' families (WG3); Koun Kaek Villagers (WG4).
Sep. 5 (Wed.)	Moving to Phnom Penh (All WGs)
Sep. 6 (Thu.)	Preparation for Findings Presentation
Sep. 7 (Fri.)	Preparation for Findings Presentation and Farewell Party
	(AM): Finding Presentation at RUPP
Som & (Sot)	20:40 Departure from Phnom Penh (TG585)
Sep. 8 (Sat.)	21:45 Arrival at Bangkok (Transit)
	01:05 Departure from Bangkok (TG644)
Sep. 9 (Sun.)	07:30 Arrival at Nagoya

Background Information of Kampong Thom Province, Cambodia Seak Sophat *

A. Geography

Cambodia, officially known as the Kingdom of Cambodia, is a country located in the northern hemisphere, a portion of the Indochina Peninsula in Southeast Asia. Its total landmass is 181,035 square kilometers, couched by Thailand to the northwest, Laos to the northeast, Vietnam to the east and the Gulf of Thailand to the southwest. Covered by 24 provinces/cities, Kampong Thom province is situated in the central Cambodia, southern part in Tonle Sap floodplain, northern one in the upland evergreen dipterocarp forest. Kampong Thom lies along the Stung Sen River and is linked to Phnom Penh, the national capital, by highways. Kampong Thom province (Figure 1) borders the provinces of Siem Reap to the northwest, Preah Vihear to the north, Stung Treng to the northeast, Kratie to the east, Kampong Cham and Kampong Chhnang to the south and the Tonle Sap to the west.



Figure 1: Map of Cambodia

^{*} Lecturer at Department of Environmental Sciences, Royal University of Phnom Penh and also a visiting scholar to the Graduate School of International Development, Nagoya University, during May – July 2012.

Kampong Thom is Cambodia's tenth largest province by area (NIS, 2008) covering an area of 13,814 km². There are a number of significant Angkorian sites in the area including Prasat Sambor Prei Kuk and Prasat Andet temples. Kampong Thom is one of the provinces that border the Tonle Sap Lake and is in Tonle Sap Biosphere Reserve. Beside the Tonle Sap Great Lake, the topography of the Kampong Thom province is typically covered by flooded forest in the floodplain area of Tonle Sap Great Lake, paddy field and upland cash crop field (Chamkar), and dipterocarp forest on the upland area where economic land concessions and mining concessions are being established.

B. Political Subdivision

The province is subdivided into 8 districts with 81 communes and 737 villages (see figure 2). Management on administrative system in Kampong Thom is governed by the central government as the whole Cambodia. Province is the first subdivision with a link to the national level. Additionally, districts are the secondary subdivision, which are further subdivided into communes controlling over the villages. The villages are the smallest of the local government units, in term of administrative system in Cambodia. Head of district is allotted by the Provincial Governor, while the commune chiefs and councilors are selected through elections of every five year. The commune is believed to be the grassroots assembly organization of Cambodia. By 2010, commune councilors are required by law to vote for district and provincial councilors and governors.



Figure 2: Map of Kampong Thom Province and Prasat Sambour District

C. Demography

Kampong Thom is located in the center point of the Kingdom of Cambodia. The rural area of the province has an estimated population of over 700 thousand households, equal to 630,803 persons, 52% of which is female. The total landmass of Kampong Thom province is 13,814 km², with the total population density is 51/km² compared on average population density of 46/km² for Cambodia (NIS, 2008). Annual growth rate of Kampong Thom province is 1.03%, with the growth rates in urban population during 1998-2008 by province is 0.19. However, the growth rates of population during 1998-2008 by province, in rural areas, Kampong Thom is 1.08% (NIS, 2008).

D. Livelihoods

The report released by National Committee for Sub-National Democratic Development (NCDD) showed that 89% of the total population of Kampong Thom province is engaged in agriculture, with 84% conducted rice farming as primary occupation. Beside agricultural dependency, local hamlet in Kampong Thom province is involved in fishing, livestock raising, NTFP collection, and significant number of population own cashew nuts field as secondary occupation for their livelihoods. With this regard, dependency of forest is a crucial actor for local hamlet in Kampong Thom province to be survived for their livelihoods, especially those who live in the upland area.

Revenue derived from forestry-related trade includes handicraft and furniture made from 'rattan', an elastic and water-resistant vine plant which is important, even; it is regarded as a secondary occupation. Kampong Thom has around 400 family-run businesses operating in rattan handicraft and a few specializing in furniture, mainly beds, with trade going to local markets as well as neighboring countries, including Vietnam and Thailand (Cambodia's Foreign Trade Statistics 1996-2009). Beside this, many people in rural Kampong Thom migrate to urban area like Phnom Penh and neighboring countries for jobs. They are non-skill laborers, being as construction worker, house mate, etc.

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Working Group 1

Livelihood Improvement Under Community Forestry in Cambodia: A Case in Sambor Commune, Kampong Thom

- 1. Introduction
- 2. Methodology
- 3. Characteristics of Sample Village
- 4. Findings
- 5. Conclusion
- 6. Acknowledgement
- 7. References

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Acronyms

ANOVA: Analysis of Variance CF: Community Forestry CFMC: Community Forestry Management Committee CDHS: Cambodia Demographic and Health Survey FA: Forestry Administration HH: Household MAFF: Ministry of Agriculture, Forestry and Fisheries NGOs: Non-Governmental Organizations NTFP: Non-Timber Forest Products Oxfam: Oxford Committee for Famine Relief RECOFTC: Center for People and Forests RGC: Royal Government of Cambodia UNDP: United Nations Development Program US\$: United States Dollar WFP: World Food Programme (United Nations)

Livelihood Improvement Under Community Forestry in Cambodia: A Case in Sambor Commune, Kampong Thom

1. Introduction

The rural poor in Cambodia depend on natural resources for their livelihood; moreover, 85% of the Cambodian people living in the countryside depend on forest resources for their livelihood. Additionally, 90% of the people whose income is below the poverty line of US\$ 0.53 are living in the rural areas (Ito & Mistugi, 2010). According to the Center for People and Forests (RECOFTC), in Cambodia, almost half of the rural poor depend on forests for 20 to 50 percent of their total income while 15 percent of them earn more than 50 percent of their income from the forests (RECOFTC, 2011). Therefore, any decrease in access or quality of the natural resources substantially affects the poor in Cambodia (University of Gothenburg, 2009).

In order to respond to the natural resource degradation, the Royal Government of Cambodia (RGC) and non-governmental organizations (NGOs) have implemented community based natural resource management (Hansen, 2006). Community forestry (CF) has been implemented as a tool to stop forest crisis and reduce poverty by including the role of local people in forest resource management and governance. (RECOFTC, 2011 & Hanney, 2010).

In Cambodia, there were 237 CF initiatives in 2004, which covered 70,000 to 80,000 ha and affected approximately 410,000 people (Hansen, 2006). Two-thirds of the CF is located in heavily deteriorated forests, little, or no forests (NGO Forum on Cambodia, 2007). According to the figures of the CF regions vs. population, a person can benefit from 0.2 ha of the forest area. However, these benefits are not derived from timber, as the forests do not immediately yield them and furthermore, nor are benefits derived from non-timber forest products (NTFP), as there is neither a high demand nor enough NTFP from the deteriorated forests (Hansen, 2006).

1-1. Problem Statement

There is a general agreement that one of the purposes of promoting CF is to reduce the poverty by providing more income to the local people. However, as it is mentioned above, in Cambodia it is almost impossible for people to obtain benefits from the forest from both timber and NTFP, thus the notion that CF can improve the livelihoods of people in the lower social stratum seems to be unclear. Are there other sources of profit from CF that the people can obtain in order to improve their livelihood besides extracting those timber and NTFP? In actuality, income generation activities supported by NGOs through CF initiatives, such as raising livestock and vegetable planting, can provide many benefits to the rural people. However, to what extent those benefits are realized by the people in CF depends heavily on whether or not the CF can secure those benefits. There is still no legal documentation or standard mechanism for equal benefit sharing, thus it depends on negotiation and facilitation between stakeholders and government

institutions. Therefore, whether or not these benefits can reach the people in the low social stratum is still in doubt (RECOFTC, 2007 & Mahanty et al, 2007).

1-2. Research Questions

Main research question: Does CF improve the livelihoods of the people in the Sambor Commune? Sub-research question 1: What kinds of activities in CF contribute to livelihood improvement in the Sambor Commune?

Sub-research question 2: What are the benefits obtained from CF?

1-3. Objectives

Main Objective: To identify whether or not CF improves the livelihood of people in Sambor Commune. **Objective 1:** To identify the activities of CF that can contribute to the livelihood of the people (both directly and indirectly) in Sambor Commune.

Objective 2: To identify whether or not those activities influenced the livelihood improvement (livelihood assets).

1-.4 Hypothesis

Our hypothesis is that CF improves the livelihoods in the Sambor Commune.

2. Methodology

2-1. Literature Review

2-1-1. Concept of Livelihood

"A livelihood comprises the capabilities, assets (stores, resources, claims and access) and activities required for a means of living: a livelihood is sustainable which can cope with and recover from stress and shocks, maintain or enhance its capabilities and assets, and provide sustainable livelihood opportunities for the next generation; and which contributes net benefits to other livelihoods at the local and global levels and in the short and long term" (Chambers and Conway, 1991).

Livelihood assets can be categorized into tangible assets, such as a tree, water, land, livestock and resources; and intangible assets, such as access to materials, knowledge, information and access to services, etc. In order to make the livelihood approach operational on the ground, livelihood assets are identified as capitals. Potential livelihoods can be grouped into five categories of capitals: human capital, social capital, natural capital, physical capital and financial capital.

Livelihoods can be influenced by social and economic or political circumstances, such as: intervention or transformation of markets, government systems, kinships between ethnic groups; or effectiveness of service, such as education and health that can affect people's ability to use and access resources. A change in livelihood context can create more opportunities as well as obstacles (UNDP, UNSDIR and IRP, 2010). For example, a natural disaster or a conflict can create obstacles, while providing

more access to certain resources that can create more opportunities.

2-1-2. Livelihood Improvement through Community Forestry in Cambodia

Cambodia has many forest resources, which are one of the most important resources for local people. CF is essential for rural people to maintain and improve their lives. The forest areas in Cambodia decreased from 73% before 1900 to 58% now. This is due to extensive commercial forest exploitation, agriculture expansion, inappropriate resource use, uncertain resource tenure, rapid population growth and policy failures.

The government established the legal framework and CF networks to prevent the deforestation and to improve the situation. The establishment of CF network meetings is not only at the national level, but at the provincial level, as well. They also try to resolve the conflicts related to CF (Beang and Sethaphal).

CF is well understood as an umbrella term for a wide range of activities, which link rural people with forests, trees, and the products and benefits to be derived from them. Gilmour and Fisher (1991) define CF in terms of control and management of forest resources by the rural people who use them, especially for domestic purposes, and as an integral part of their farming systems.

Chea Sam Ang, Sok Heng and Park Marina (2005) describe that CF is an effort to support and empower communities to continue their traditional uses of forest resources and to encourage sustainable practice; they also mentioned that CF can play an important role in the reform of the forest sector, which is also the strategy for poverty reduction of the Royal Government of Cambodia.

CF in Cambodia is contributing to livelihoods in many ways. These include fulfilling the basic needs of local communities, investing money in supporting income generation activities of the poor and providing access to the forestland for additional income or employment. Participation of households in forest activity is another important element, which helps the communities to increase the outputs, incomes and improve their lives.

In the article two of the Sub-Decree on Community Forestry Management, objectives of producing regulation for CF management are stated as "to establish procedures to enable communities to manage, use and benefit from forest resources, to preserve their culture, tradition and improve their livelihoods; to support the Royal Government of Cambodia's policy of poverty alleviation and decentralization;" (RGC, 2003). Therefore, CF management is established to promote livelihood improvement and poverty reduction.

A conceptual diagram, Figure 1.1, is developed based on the concept of sustainable livelihood and its linkage to the CF management. Livelihood improvement is defined here as improvement of assets and capabilities. The diagram explains how the community is influenced by CF. Through empowerment activities, community members can improve their livelihood by producing more income, investing on assets and consuming goods and services.

Figure 1: Tentative Conceptual Diagram of Livelihood Improvement though Community Forestry



Source: Authors, 2012

2.1.3. Overview of Roles and Responsibilities

Forestry Administration (FA) Staff

The Ministry of Agriculture, Forestry and Fisheries (MAFF) should act as a lead authority on the CF and have general jurisdiction over the community management. CF staff at the central level should play role in the CF development such as:

- Develop technical guidelines and strategic planning
- Prepare policies and legal documents
- Collect, manage, and distribute the information
- Look for support from other stakeholders and organize teams
- Enhance public awareness related to reforestation and create nursery-planting areas The CF staff at the local level also play role and are responsible for CF development to:
- Revise and approve agreements with a community
- Review and approve plans for the CF management
- Monitor and evaluate

- Assess and make demarcation for forest areas in order to establish CF
- Decide to recognize, reject, and terminate any CF project

In addition, local FA staff may act as facilitators in supporting supplemental CF related to livelihood activities.

CFMC

The main role of the community forestry management committee (CFMC) is developing and implementing regulations regarding CF and overseeing agreements and management plans in compliance with the CF Sub-Decree and Prakas. Some of the specific roles include:

- Help to manage the forest resources in compliance with regulations, create agreements and plans for the CF management and other forest-related legislation
- Manage mechanisms for benefit sharing
- Participate in monitoring the use of resources by secondary users and conserving, protecting, and planning the forest in order to make sure that there is sustainability for the environment and forest resources
- Conserve and protect wildlife
- Open a bank account and manage the finances transparently
- Develop and implement the mechanism for monitoring and evaluation
- Look for financial and technical support from the Forestry Administration and other related stakeholders
- Immediately report any offences to the nearest Forestry Administration Official.

NGOs

The main role of NGOs is providing various support and technical assistance activities for the government and community to assist in facilitating the development and implementation of recognized CF. Some of those specific roles include:

- Raise awareness and extend the CF at both local and grassroots level
- Provide assistance for the establishment and implementation of programmes according to the laws, regulations, and plans
- Provide support and develop the organizational and technical capacity of the community by training and giving hands-on support
- Support or facilitate network building between and among service providers and the community.

Commune Council

The Forestry Administration and others have recognized that commune council plays a vital role in the development of the recognized CF in Cambodia. In order to clarify the role of the commune council in regards to enforcement of the forestry sector, some of the following main points should be understood:

- The commune council should inform about any forestry offence as soon as possible to the nearest Forestry Administration officials or office
- They should also detain the offenders, temporarily confiscate evidence and send it immediately to the Forestry Administration officials with the authority, like judicial police, to take legal action
- They should not collect fines or confiscate any evidence directly
- They should exercise their authority in accordance with the Commune Deika to recognize the CFMC
- They should participate in the environment and natural resource protection by facilitating CF establishment
- They should support and encourage the local communities to establish a CF programme and provide financial support for the establishment
- They and their staff can support, as well as participate, in CF meetings
- They can include the CF in their plans for commune development.

2-2. Survey and Data Collection

The research started by defining the sample (nine households) on which the preliminary survey was conducted. Additionally, information about stakeholders and the households involved in CF management were gathered through interviews with some selected households.

Three research teams were formed to collect data and two of these teams had the task to assess each objective with a defined number of households that covered our research sample. Structured and semi-structured interviews were used to collect data about assets, household-level income, the household's access to forest resources, the impact these had on the household's livelihood at the low stratum and other important data necessary for our research.

In this research, the term 'lower social stratum' is defined as a group of people who are in low social rank due to low income, low education and low position or title.

The interviewees are as following and were interviewed in different villages (Boeng Totuel, Preah Sophea and Srey Yol).

- ①. Members of CF Committee from different villages
- ②. Members of CF communities from different villages
- ③. Local authorities (Kampong Tom)
- (4). NGOs, especially Mlup Baitoeng (Sambor Commune)

The interviews with 36 households (CF Community members) mostly focused on the assets and the management of the CF. Each household had been asked about its participation in CF activities (tree planting, patrolling, meetings etc.). Information was also conducted on NTFP collection for each household, including the amount collected per month or year, and the use of those products. The information about family size was important in order to measure the income level of each household. Another set of interviews was conducted with the committee forestry members to provide information about the CF management, group savings, activities and members' involvement. The information helped to define the general and specific problems encountered in the management of the CF, the degree of involvement of the members in the different activities and specifically the skills development.

To find the balance between the different information, one NGO was consulted to gather precise details concerning the CF function, the management, and the contribution of the NGO in helping to overcome difficulties, conflicts, or to empower the CF members. Some historical and administrative information was collected from local authorities.

Upon returning from the field after each round of fieldwork, each research team entered data into the database, a process which helped in data cleaning. Analysis was done using Microsoft Excel 2007 and SPSS Statistics 17.0. After finalizing the data analysis and drafting the present working paper, the results were presented in the study area and suggestions included in this final report.

The core data analysis focused on the different capitals: social, human, environmental, economical and physical. For example, human capital development was analyzed through the number of members who received training and had used that skill or knowledge. Social capital implied participation in patrolling activities, meeting and saving groups and level of interaction among villagers after the establishment of the CF program.



Figure 2: Summary of the Research Objective

Source: Authors, 2012

2.3 Scope and Limitations

Our research covered one site, the Sambor Commune in Kampong Thom, Cambodia. Household surveys were conducted in four villages. Due to time constraints, sampling of our questionnaire surveys could only be done in one village, Sambor. Our preliminary sampling consisted of nine households. Our final survey consisted of 36 households interviewed over a 3-day period. Based on the number of households interviewed, the findings of this paper should be considered exploratory. Moreover, our results may not correlate to other CF sites and the small sample size may impact our findings, thus decreasing the significance of our analysis. In addition, no village in the Sambor Commune has fully implemented the CF, further limiting our study. Finally, we did not perform a survey of the forest to check the condition of the natural assets before conducting our research. This limits what we are able to infer regarding physical capital improvements.

3. Characteristics of the Sample Village

3-1. Background of the Study Area: Kampong Thom

Located in the geographical center of Cambodia, the rural province of Kampong Thom has an estimated population of over 700 thousand, 52% of which are female, and has been a significant producer of wild fish and cashew nuts in Cambodia. With the recent concessions of social land concession given to Kampong Thom villagers development officials expected, not only to lessen exposure to deforestation, but to provide additional income opportunities for the residents (MAFF, 2011).

Malnutrition Indicator	Rate percent 2000	Wfp rate category 2000	Number of children affected 2000	Rate percent 2005	Wfp rate category 2005	Number of children affected 2005
Population Children Aged Under 5 years	100%	-	91,523	100%	-	90,101
Stunted (moderate & severe <- 2SD)	49.4%	Very High	43,199	41.1%	Very High	37,032
Underweight (moderate & severe <- 2SD)	49.4%	Extremely High	45,212	37.4%	Very High	33,698
Wasted (moderate & severe <- 2SD)	24.5%	Extremely High	22,423	3.4%	Low	3,063

Table 1: Child Malnutrition in Kampong Thom (2000 and

Source: Cambodia Demographic and Health Survey 2000 and 2005

Different economic and social indicators can be used to measure livelihood improvements for those participating in the CF. Malnutrition in Kampong Thom, measured by child and infant mortality rates and protein-energy malnutrition in children, is an indicator of low food security and availability. Tables 1 and 2 show the prevalence of different malnutrition indicators in Kampong Thom and its rank compared to all the other provinces in Cambodia:

Malnutrition indicator	Rank of this province compared to all 24 provinces: 1= the worst 24 = the best		
Population of Children Aged Under 5 years	10		
Number of Children Stunted	7		
Number of Children Underweight	7		
Number of Children Wasted	14		
Rate of Stunting	8		
Rate of Underweight	11		
Rate of Wasting	24		

Table 2: Malnutrition Indicators in Kampong Thom: Ranking

Source: Cambodia Demographic and Health Survey 2005

The prevalence of malnutrition among children varied depending on the indicator, with the number of stunted and underweight children being among the highest ranked compared with the other provinces.

Revenue derived from forestry-related trade includes handicrafts and furniture made from 'rattan,' an elastic and water-resistant vine plant, which is abundant near forests and flooding areas. Kampong Thom has around 400 family-run businesses operating in rattan handicrafts and a few specializing in furniture, mainly beds, with trade going to local markets as well as neighboring countries, including Vietnam and Thailand (Cambodia's Foreign Trade, 2010).

Uneven land distribution and access to land are also correlated to household wellbeing. Households that are landless are not able to produce their own staple foods and those with less than a hectare of land, as shown in Table 3, can only produce a part of their staple food needs (MAFF, 2011).

Agricultural land per rural household	% of rural hh this province	% of rural national
No agricultural land	7%	15%
(landless)		
Less than 1.0 hectare (0.01-	44%	49%
<1.0 ha)		
1.0 -< 3.0 hectares	40%	30%
>= 3.0 hectares	10%	6%

Table 3: Agricultural Land in Kampong

Source: Ministry of Agriculture, Forestry and Fisheries 2004

3-2. The Sample Village: Sambor Village

In order to hone our questionnaire survey, we did one day of sampling in the Sambor Village in the

Sambo Commune. The occupations of households in Sambor Village consisted primarily of rice farming and cashew nut production, with casual labor and livestock breeding as secondary sources of income. It should be noted that most households in the Sombor Village had more than just two sources of income. The four main CF activities were collecting NTFP, patrolling, tree planting, and inventory/mapping of the forest; similar to the activities of the three villages we conducted our final research in. We would characterize the level of CF activities as moderate.

The characteristics of the nine households surveyed consisted of 5.77 CF members per household; while the average farm size ranged from 0.5ha to 5ha. Participation in savings groups organized through CF participation could also be classified as moderate.

CF income mainly came from NTFP activities, which included collecting vines, mushrooms, firewood and wild berries. While most NTFP activities were for daily consumption, the average income/household derived from NTFP equaled \$15 (US\$). In addition, the average income/household was to \$92.46 and the average savings/household was \$38.33. Overall, the characteristics of the sample village would be defined has typical among villages in Sambor Commune. Financially, households in Sambor Village tended to be slightly better off, based on the average savings per household.

4. Findings

4-1. Overview of Community Forestry in Kampong Thom

In Kampong Thom, there are 93 forestry communities. The total area is 87,411 hectares. There are 13,337 households involved in CF, accounting for 34,917 people with 18,107 being female. There are 120 villages, 29 communes, and 7 districts in Kampong Thom that have established a CF program.

4-2. Current Situations in the Surveyed Community Forestry

According to both primary and secondary data related to the surveyed area managing CF, it was shown that they have been actively protecting and restoring forest conditions by patrolling and planting trees in degraded forests. Moreover, there is strong support from the local people for the establishment of a CF initiative, evidenced by the fact that most of them have voluntarily become CF members and participate in most of the activities related to the project. The CF often gets financial, facility and/or capacity building support from the local and central government and some key NGOs like Oxfam British and Mlup Baitong. It is important to emphasize that the forest conditions in the CF have been improving day-by-day and illegal logging or other forestry offences have reduced significantly.

However, there are still some problems occurring with the CF. First, there is only training related to how to protect and improve the forest conditions and minimal training related to livelihood, in particular, for the CF members. Therefore, the people find it hard to improve their livelihood after the establishment of a CF initiative. What is more, although there is support from NGOs related to patrolling, the support is not enough for patrolling members and those people sometimes have to spend their own money to pay for

the gasoline and/or buying food when they go on patrol, resulting in a loss of motivation to continue.

4-3. Activities and Benefits of Community Forestry on Livelihood Assets

4.3.1 Financial Capital

The two main CF activities in Boeng Totuel directly related to improvements in financial capital are patrolling and the collection of NTFP. The villagers are paid each time they participate in patrolling, and the NTFP that is collected can be sold for money. Although savings groups are not a CF activity, they were created because of the CF initiative, with the support of the local NGOs; therefore the benefits from savings groups are an indirect result of the CF.

Boeng Totuel

Out of the 13 villagers that were surveyed, 11 (84.6%) participated in patrolling and while all of them collected NTFP, only 7 (53.8%) received income for their collections. There was only one overlap, where one villager did not receive income for patrolling or from NTFP, meaning that 12 of the 13 villagers surveyed (92.3%) received direct financial benefits from CF activities. Table 4 shows the descriptive statistics for these activities. The amount of income from patrolling and from collection of NTFP, are \$3 and \$6, respectively. When compared to the average monthly expenditures for the villagers, they would be able to finance less than 10% from CF activities. In the best case scenario, if the maximum income of \$5 and \$19 respectively, was derived with the lowest expenditures of \$37, then the highest plausible contribution to monthly expenditures could be up to 65% for this village.

	Number of Households (%)	Minimum	Maximum	Mean	Std. Deviation
Patrolling income per month	11 (84.6)	.42	5.00	2.6389	2.05255
NTFP Income per month	7 (53.8)	.63	18.75	6.3056	8.28828
Monthly Expenditures	8 (61.5)	37.46	163.50	94.4279	49.61939

 Table 4:
 Financial Capital Participation and Benefits (in US\$)

Source: Authors, 2012

In Boeng Totuel, 38.5% of the villagers surveyed were participating in savings groups as shown in Table 5.

Table 5: Boeng Totuel Savings Group

	Frequency	Percent
Yes	5	38.5
Total	13	100.0

Source: Authors, 2012

Analysis

In an effort to find factors correlating to an increase in income from these activities One Way ANOVA tests were conducted. The ANOVA for NTFP income revealed that NTFP income was dependent on frequency of patrolling per month, number of years in CF program and the number of CF activities as shown in Table 6. The reason for these results might be that the collection of NTFP can occur during or after patrolling, therefore the more patrolling a villager does, the more NTFP he may be able to collect. Years in CF and the number of activities can be an inference for experience, and with increased experience come more NTFP collections.

		F	Sig.
Patrolling per month	Between Groups	4.571	.043
Years in Community Forestry	Between Groups	17.538	.001
Number of CF Activities	Between Groups	4.308	.049

Table 6: ANOVA for NTFP Income

Source: Authors, 2012

Number of CF Activities

	Sum of Squares	Degrees of freedom	Mean Square	F	Sig.
Between Groups	14.276	4	3.569	8.356	.006
Within Groups	3.417	8	.427		
Total	17.692	12			

Source: Authors, 2012

The ANOVA for patrolling income only revealed a significant relationship with the number of CF activities a villager has; see Table 7. The post hoc Scheffe test of the activities subsets of 1 and 2 activities, as shown in Table 8, revealed that those villagers that made the maximum income of \$5 were equally divided among the number of activities subsets and that the second largest value of \$2.50 US\$ and the largest concentration of patrolling income group only have one activity.

Table 8: Post Hoc for CF Activities Su	Table 8: Fost hoc for CF Activities Subsets						
	Subset for $alpha = 0.05$						
Patrolling income per month (US\$)	Observations	1	2				
.00	2	.00					
.21	2	.00					
2.50	4	.25					

Table 8: Post Hoc for CF Activities Subsets

5.00	2	1.00	1.00
.42	3		2.67
Sig.		.612	.195

Scheffe^{a,,b}

Source: Authors, 2012

Preah Sophea

Out of the 12 villagers surveyed in Preah Sophea, 10 (83.3%) were participating in patrolling with a minimum monthly income of \$2.50 and a maximum of \$7.50 as shown in Table 9. While 11 out of the 12 villagers collected NTFP, only three of them, or 25%, received income from their collections. Again there was only one overlap, where one of the villagers did not receive income from either activity, meaning that 11 out of the 12 villagers, or 91.7%, are receiving direct financial benefits from CF activities. The combined means of patrolling and NTFP income would yield a very small percentage of average monthly expenditures, 4%. Even in the best plausible scenario where the maximum incomes from CF compared to the lowest monthly expenditure, the percentage is only 18% of total expenditures, meaning that Preah Sophea receives a small percentage of its income from community activities.

Table 9: Financial Capital Participation and Benefits (in US\$)

-			-		· · · · · · · · · · · · · · · · · · ·
	Number of Households (%)		Maximum	Mean	Std. Deviation
Patrolling income per month	10 (83.3)	2.50	7.50	3.9583	2.49051
NTFP Income per month	3 (25.0)	2.50	3.33	.6944	1.27294
Monthly Expenditures	11 (91.7)	59.38	231.58	112.4950	59.13561

Source: Authors, 2012

Regarding the indirect benefits that can be attained by participating in the savings groups, Table 10 shows that 83.3% of the villagers are participating. This very high value for indirect financial benefits might account for the high monthly expenditures that are evident in this village and help explain the very little dependence the village has on income from CFactivities.

Table 10: Preah Sophea Savings Group

	Frequency	Percent
Yes	10	83.3
Total	12	100.0

Source: Authors, 2012

Analysis

The ANOVA for NTFP income revealed that the number of trees planted was directly correlated with the NTFP income of the villagers as is shown in Table 11. This was also confirmed by a Pearson's correlation on the same values as seen in Table 12. A possible explanation for this is that while or after the tree planting activity is taking place, the villagers take advantage of being in the forest to collect NTFP, therefore the more trees they plant, the more NTFP they can collect. There were no significant results in the ANOVA test for patrolling income.

Table 11: ANOVA for NTFP Income

Trees planted

	Sum of Squares	Degrees of Freedom	Mean Square	F	Sig.
Between Groups	1.753E7	1	1.753E7	45.060	.001
Within Groups	2333971.429	6	388995.238		
Total	1.986E7	7			

Source: Authors, 2012

Table 12. Correla	tions	
	NTFP Income per month	Trees planted
Pearson Correlation	1	.939**
Sig. (2-tailed)		.001
Observations	12	8
Pearson Correlation	.939**	1
Sig. (2-tailed)	.001	
Observations	8	8
	Pearson Correlation Sig. (2-tailed) Observations Pearson Correlation Sig. (2-tailed)	monthPearson CorrelationSig. (2-tailed)Observations12Pearson Correlation.939**Sig. (2-tailed).001

Table 12: Correlations

**Correlation is significant at the 0.01 level (2-tailed). Source: Authors 2012

Srey Yol

Out of the 12 villagers surveyed in Srey Yol, 10 (83.3%) were participating in patrolling with a minimum monthly income of \$0.21 and a maximum of \$7.50 as shown in Table 13. In this village, only half of the villagers that were surveyed, 6 out of the 12, collected NTFP, and out of these only three of them, or 25%, received income from their collections. In this village there were two overlaps, where two of the villagers did not receive income from either activity, meaning that 10 out of the 12 villagers, or 83.3%, are received for patrolling and NTFP and comparing it to the mean of monthly expenditures, it would seem that CF activities account for less than 3% of monthly expenditures. In the best plausible scenario, where

the maximum values for patrolling and NTFP income are compared to the lowest monthly expenditure, the result is 19%.

	Number of Households (%)	Minimum	Maximum	Mean	Std. Deviation
Patrolling income per month	10 (83.3)	.21	7.50	2.8819	2.53889
NTFP Income per month	3(25.0)	.10	4.29	.6158	1.44056
Monthly Expenditures	12(100.0)	61.81	344.46	146.3711	78.89382

 Table 13: Financial Capital Participation and Benefits (in US\$)

Source: Authors, 2012

Table 14 shows the level of participation in savings groups, which indicates that only 33.3% are receiving the indirect benefits to financial capital that savings groups provide.

Table 14: Srey Yol Savings Group

	Frequency	Percent
Yes	4	33.3
Total	12	100.0

Source: Authors, 2012

Analysis

The ANOVA test for NTFP income revealed that the number of income generating activities was the only variable related to NTFP income, as shown in Table 15. Table 16 shows the Pearson Correlation for these two variables exposing the negative correlation. The theory behind these results is that the less income generating activities a villager has, the more time they have to collect NTFP, and the more they depend on NTFP for income. This is illustrated in Table 15, where the person with no income generating activities has the highest amount of income from NTFP.

Table 15: ANOVA for NTFP Income

Number	of Income	Generating	Activities
1 (unito of	or meonic	Generating	110011100

	Sum of Squares	Degrees of Freedom	Mean Square	F	Sig.
Between Groups	6.000	3	2.000	8.000	.009
Within Groups	2.000	8	.250		
Total	8.000	11			



Source: Authors, 2012

	-	NTFP Income per month	Number of Income Generating Activities
NTFP Income per month	Pearson Correlation	1	856**
	Sig. (2-tailed)		.000
	Observations	12	12
Number of Income Generating	Pearson Correlation	856**	1
Activities	Sig. (2-tailed)	.000	
	Observations	12	12

Table 16: Correlations: NTFP Income per Month

**Correlation is significant at the 0.01 level (2-tailed).

Source: Authors, 2012

The ANOVA test results in Table 17 show that the years in CF and the number of trees planted were correlated with the income from patrolling. Table 18 displays the Pearson correlations showing a positive relationship between years in CF and income from patrolling, and a negative correlation between number of trees planted and patrolling income. The deductions are that the more time a villager spends involved in CF, the more experience in patrolling he receives, which subsequently leads to a higher frequency of patrolling opportunities. With regards to tree planting, the more time one spends planting trees is reflected in less time available to go patrolling, and vice versa. Therefore patrolling and tree planting have a related opportunity cost.

Table 17 ANOVA for Patrolling Income

		F	Sig.
Years in Community Forestry	Between Groups	5.319	.043
Trees planted	Between Groups	5555.414	.000

Source: Authors, 2012

Table 18: Correlations: Patrolling income per month

		Patrolling income per month	Years in Community Forestry	Trees planted
	Pearson Correlation	1	.569	774
month	Sig. (2-tailed)		.053	.071
	Observations	12	12	6
5	Pearson Correlation	.569	1	a •
Forestry	Sig. (2-tailed)	.053		.000
	Observations	12	12	6
Trees planted	Pearson Correlation	774	a •	1
	Sig. (2-tailed)	.071	.000	
	Observations	6	6	6

Source: Authors, 2012

4-3-2. Natural Capital

The two activities that lead to an improvement in natural capital are patrolling, which is aimed at preventing deforestation through the illegal cutting of timber, and tree planting.

Boeng Totuel

As mentioned before 11 (84.6%) of the villagers participated in patrolling. For tree planting, there was only one villager (7.7%) that planted trees among those surveyed. This villager planted around 500 trees and estimates that 40% of the have survived, leaving the village with a net tree increase of 200.

	-	Frequency	Percent	Survival Rate
Valid	500	1	7.7	.40
Missing	System	12	92.3	
Total		13	100.0	

 Table 19: Tree Planting

Source: Authors, 2012

Table 20 shows the results for answers villagers gave concerning the change in forest conditions since CF was implemented. The majority of the villagers (46.2%) surveyed reported to have noticed no change in forest conditions, while 38.5% believe it has improved and 15.4% believe it has decreased. These views are consistent with the very low participation in tree planting.

	÷		
		Frequency	Percent
Valid	Decrease	2	15.4
	No Change	6	46.2
	Improved	5	38.5
	Total	13	100.0

Table 20: Boeng Totuel Forest After CF

Source: Authors, 2012

Preah Sophea

While 83.3% of the villagers surveyed participated in patrolling, 66.7% have participated in tree planting as shown in Table 21. The total number of trees that have been planted in the village since CF was implemented is 8,670 trees, with the maximum number of trees for an individual being 5000 and the lowest 20. Since the mean survival rate for the trees in Preah Sophea is 52.22%, it can be said that CF has improved the natural capital of this village by a net increase of 4527 trees.

Number of Househo Maximu Std. lds (%) Mean Deviation Minimum Sum m Trees planted 20 5000 8670 1083.75 1684.466 (66.7%) Tree 9 .10 1.00 .5222 .29059 Survival Rate

Table 21: Tree Planting

Source: Authors, 2012

Table 22 shows the results for answers concerning the change in the forest conditions due to CF given by the surveyed villagers. Surprisingly none of the villagers felt that the forest had decreased, the majority, 58.3%, said it had improved while the rest saw no change. These results are consistent with Preah Sophea's longer run at CF than the other villages.

	-	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No Change	5	41.7	41.7	41.7
	Improved	7	58.3	58.3	100.0
	Total	12	100.0	100.0	

Table 22: Preah Sophea Forest After CF

Source: Authors, 2012

Srey Yol

Of the villagers surveyed, 10 out of the 12, or 83.3%, participated in patrolling. Table 23 illustrates the participation level for tree planting being at 50%. Half of the villagers surveyed planted a total of 2,140 trees, with the maximum trees planted by an individual being 2,000 and the minimum was 10. With an average survival rate of 57.14%, it can be said that CF has improved the forest in Srey Yol by a net increase of 1,222 trees.

Table 23: Tree Planting Participation Level

	Number of Households (%)	Minimum	Maximum	Sum	Mean	Std. Deviation
Trees planted	6 (50.0)	10	2000	2140	356.67	805.175
Tree Survival Rate	7	.40	1.00		.5714	.19760

Source: Authors, 2012

Table 24 shows that, similar to Preah Sophea, the villagers of Srey Yol did not witness any detrimental effects on the forest since the establishment of CF. The majority, at 66.7%, saw an improvement to the forest, while a third saw no change.

Table 24: Srey Yol Forest After CF

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No Change	4	33.3	33.3	33.3
	Improved	8	66.7	66.7	100.0
	Total	12	100.0	100.0	

Source: Authors, 2012

4-3-3 Human Capital

Our conceptual framework is designed to analyze the influence of CF activities on human capital through activities related to skill development and capacity building activities. Thus, we collected data on skill development activities that were directly or indirectly provided though CF. Human capital

improvement activities identified in all study sites are shown in Figure 3. The major activities directly related to skill development through CF were identified as general trainings (training on official report writing, dissemination of operational skills and knowledge on CF, etc.), management training (training on human resource management for patrolling and financial management, etc) and forestry resource management training. Other minor or indirect skill development activities such as plantation, farming and raising livestock, etc. were identified as well. Attending conferences was also considered as one of the skill development activities because it disseminates required skills and knowledge. The level of livelihood intervention in terms of activities on human capital improvement was different among the three CFs. Preah Sophea received the most human capital improvement among the three CFs, due to thirteen categories of trainings, including the attendance of conferences. Srey Yol received nine categories of training for human capital improvement through CF, while Boeng Totuel has received three kinds of training for human capital improvement activities. Among the three villages, Boeng Totuel received the least number of skill development trainings. The reason for this distortion of intervention could be related to the difference in length of participation in CF. Among the three CFs, respondents in Preah Sophea has been participating longer than the other CFs. Tint (2011) explains CF develops over time; the institutional efforts (livelihood intervention) slowly increase in early stages of CF and as the benefit increases in later period of time, the intervention decreases. The significance between variables may be low, however, based on the basic logic of CF. The human capital intervention for the three CF were at different levels because the duration of participation was different.



Figure 3: Human Capital Improvement Activities Identified in 3 Villages

Source: Authors, 2012

The benefit on human capital through the activities were measured by two factors, the number of people who were involved in skill development training and the number of respondent who used their acquired skills gained through CF skill development training in their daily lives or in CF activities. Table 25 and table 26 shows that 62% of total respondents had participated in CF skill development activities and 41% of total respondents said the acquired skills are useful. From these overall results, we can say that human capital intervention through CF had a moderate level of impact.

	1	8
Village	Number of People who had	%
(Observations)	Received Training	
Boeng Totuel (13)	5	38%
Preah Sophea (12)	10	83%
Srey Yol (12)	8	67%
Total 37	23	62%

Table 25: Number of People who had Received Training

Source: Authors, 2012

	1 8	
Village (Observations)	Number of People who Used	%
	Knowledge/skills	
Boeng Totuel (13)	2	15%
Preah Sophea (12)	8	67%
Srey Yol (12)	5	42%
Total 37	15	41%

Table 26. Number of People who had Used Knowledge/Skills

Source: Authors, 2012

Boeng Totuel

Boeng Totuel received three types of training for human capital improvement through CF; general training for management of CF training for forest resource management and raising livestock. The study shows that 38% of respondents received either one or more trainings. The data shows that 40% of respondents that received the trainings, (15% of total respondents), have practically applied their skills. The level of human capital intervention in this CF was low and its impact on the livelihood improvement, both in terms of involvement in training and amount of useful knowledge, was found not significant.

Preah Sophea

Preah Sophea received 13 types of trainings, including attending conferences for human capital improvement. The data shows 83% of total respondents participated in either one or more trainings and had attended conferences related to CF. In Preah Sophea, our survey found that 80% of people who participated in training activities, which was 67% of total respondents, used the skills they acquired through CF training activities. The level of human capital intervention was relatively high and its impact on human capital was also high.
Srey Yol

Our survey found that Srey Yol Village has received nine types of training for human capital improvement through CF. It showed that 67% of respondents received either one or more trainings. The data shows 63% of villagers that participated in training activities, which was 42% of total respondent, had used the skills they acquired through CF training activities. This CF had a moderate level of human capital intervention and a moderate level of impact on human capital.

By comparing the findings between the three CFs, all figures consistently showed an interrelation between the number of trainings and the amount of used knowledge. We can say that the higher the level of intervention (human capital improvement activities), the more skills required for the improvement of livelihood were attained.

4-3-4. Social Capital

The level of livelihood intervention through CF for social capital was measured through figures of creation of networks, such as creation of saving groups among CF members and level of interactions among villagers during participation in patrolling and meetings activities. Figure 4 shows the number of participants involved in patrolling, meeting and savings group activities. It shows that 84% of total respondents participated in patrolling, 86% participated in CF monthly meetings and 51% participated in savings groups. Surprisingly, all three CFs showed a relatively high level of participation for group activities such as patrolling and CF meetings, although Boeng Totuel and Srey Yol had low levels of participation in saving groups. According to the figures, it shows that the livelihood intervention for social capital was high. However, we cannot clearly explain this phenomenon of the high level of participation in the activities. Has the interaction increased as the outcome of interventions or is it because the level of existing social capital was high? Due to the limitations of our survey, our analysis cannot explain clearly. However, as shown in Table 29, 85% of the total respondents answered that the interaction among villagers increased after establishment of CF through patrolling and meetings. In addition to this evidence, all respondents in Preah Sophea CF agreed that the level of interaction increased after the establishment of CF. Therefore, we can conclude that regardless of existing social capital, CF activities have increased the interaction among CF members, which enhances social capital.



Figure4. Level of Interactions among Villagers



Boeng Totuel

Of the total respondents, 85% participated in patrolling, 92% participated in CF monthly meetings and 38% participated in savings groups. Formation of saving groups was relatively weak in this village due to lack of knowledge and skill in management. Outside of the formation of saving groups, the overall participation for patrolling and attending meeting was high. However, compared to Preah Sophea and Srey Yol, the number of respondents who agreed on the increase in level of interaction was the lowest among the three CFs.

Preah Sophea

In this village, 83% of total respondents participated in patrolling, 75% participated in CF monthly meetings and 83% participated in savings groups. In Preah Sophea, the overall figures were relatively high and 100% of the respondents agreed that there was an increase in interaction among villagers after the establishment of CF. Surprisingly, the overall figures of Preah Sophea show that there was a high level of intervention and a successful outcome. One of the reasons could be the longer duration since CF establishment.

Srey Yol

The results show that 83% of total respondents participated in patrolling, 92% participated in CF monthly meetings and 33% participated in savings groups. Srey Yol Village also had weak participation in savings group. However, 83% of the respondents agreed that there was an increase of interaction among villagers after establishment of CF. The figures were similar to Boeng Totual, with only a small difference in increase interaction among villagers.

Analyzing the data from the three CF, it was found that interrelation between participation in saving groups and increase in interactions was not significant. Although, savings groups worked as a tool to improve social capital, they have been introduced recently and the impact was still not yet visible. Apart from the data for the saving groups, livelihood intervention was considered good and social capital improved through CF activities.

4-3-5. Physical Capital

Our investigation revealed that with regards to physical capital improvement, CFprovided very limited benefits. From interviews with government officials and NGOs we were able to ascertain that no physical capital improvements were given by way of external support from these agencies. Only households that are very poor can apply to the CFMC for permission to cut timber in order to build or repair their houses. Therefore, only the very poor receive physical capital improvement due to CF.

5. Conclusion

In conclusion, CF has enhanced certain aspects of livelihood for villagers in the Sambor Commune. The impact of improvement varies between villages, with an observed relationship between the extent of CF activities per household and the level of livelihood assets achieved. As our findings show, financial capital, which mainly consisted of patrolling and NTFP had direct financial benefits resulting from CF activities. Natural capital, which primarily consisted of tree planting, had significant benefits in Preah Sophea and Srey Yol, but negligible benefits in Boeng Totuel. Human capital, which was principally accounted for by training, had modest linkages between training received and the practical application of the new skills obtained, while social capital, which was measured by interaction among villagers after the establishment of CF and by savings groups, showed relatively high net benefits across each village. Finally, three was relatively no change in physical capital with regards to CF - only the very poor could obtain benefits through CFMC permission to cut timber in the protected areas, but only for dwelling needs. To summarize the results, the Preah Sophea CF program in the Chramah Village showed the most improvement, which can be attributed to the duration of their CF program (6.7 years); whereas the Boeng Totuel CF program, established 4.5 years ago in the Kun Kaek Village, showed the least livelihood improvements. In closing, while not all aspects of livelihood improved under CF in the Sambor Commune, our findings suggest that there is a modest correlation between the duration of CF activities and livelihood improvement.

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Working Group 2

Factors Affecting Students' Willingness to Pursue Lower Secondary Education: A Case Study at Sambor Commune, Prasat Sambor District, Kampong Thom, Cambodia

- 1. Introduction
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Factors Affecting Students' Willingness to Pursue Lower Secondary Education: A Case Study at Sambor Commune, Prasat Sambor District, Kampong Thom, Cambodia

1. Introduction

"All children must have the opportunity to fulfill their right to quality education in schools or alternative program at whatever level of education is considered 'basic.' All states must fulfill their obligation to offer free and compulsory primary education in accordance with the United Nations Convention on the Rights of the Child and other international commitments..." (Dakar Framework for Action, Adopted by the World Education Forum, UNESCO 2000, p. 15)

In line with Cambodia's gradual economic growth and rapid progress towards achieving 'Education for All' goals like other developing countries, the enrolment rate for primary schools has dramatically increased and people's needs for education have also arisen to secondary education, as well as higher education. Even though the enrolment rate of lower secondary education in Cambodia still remains low compared with that of primary education, it has been constantly growing, and the importance of continuing lower secondary education is now highlighted in the education strategies of the Royal Government of Cambodia.

In addition to the governments' policies to promote the enrolment rate at the lower secondary education level, we assume that students' willingness is also one of the important considerations that can positively influence the enrolment rate. Therefore, in this research we focus on the students who graduated from grade six and have decided to go to lower secondary schools, to find out the factors affecting their willingness to continue their studies.

To prove our hypotheses, we conducted a case study at five primary and two lower secondary schools at Sambor Commune in Kampong Thom Province by using both questionnaire survey and interviews. Based on a six-day field survey, we analyzed the data from the perspective of students, schools, families and society. In order to make our findings more concrete, we categorized the variables from each perspective and expected that the students' willingness to pursue further education would have strong influence.

In this report, we start with the historical background of Cambodian education, its current education system, problem statements, and literature review. We then state our hypotheses and present our research methodologies, which include information about the research site, and finally discuss our findings from four perspectives.

1-1. Historical Background of Education in Cambodia

The Cambodian education system has undergone many reforms in the last three centuries due to changing political and socio-economic situations of the country. During the period of French colonization

from 1863 to 1953, the Cambodian education system was modeled on the French system, under which only a small percentage of people had access to education due to the limited numbers of public schools and very small number of private schools (Dy & Ninomiya, 2003).

After the colonial period, Cambodia continued with the French education system and the primary education enrolment rate kept significantly and consistently increasing from 134,506 in 1950 to 563,081 in 1960 (Dy, 2002). Moreover, the education system was considered quite good until the country was plunged into political crisis during the 1970s. More recently, the French model has still had some influence on the current Cambodian education system, and it was this influence that has been known to be one of the causes of high repetition and dropout rates at the primary education level, as noted by senior education officials (Dy & Ninomiya, 2003).

During the Khmer Rouge, or Pol Pot regime, from 1975 to 1979, Cambodian education came to a halt and most educational materials, such as teaching and learning materials, were destroyed (The United Nations Transitional Authority in Cambodia [UNTAC], 1992, as cited in Neau, 2004). Schools and universities were closed and used for other purposes such as prisons and execution sites. Also, many well-educated people, such as teachers, intellectuals, and researchers, were killed. This critical situation created significant difficulties and challenges for the present government to restore and reform the national education system after the regime.

After the fall of the Khmer Rouge regime (1975 – 1979), the new regime (1979 – 1989), the People's Republic of Kampuchea was formed and the education system had to be restored almost from zero (Neau, 2004). This regime was supported by Vietnam and other socialist bloc nations (Dy, 2002). The education system during this regime was largely based on the Vietnamese model (Martin, 1896). Additionally, the contents of the textbooks centered on politics and the cooperation and tie between Cambodia and Vietnam.

In order to meet the urgent need of competent human resources to develop the country, education institutions were reconstructed and the education system was reformed and expanded. From 1979 to 1986, the Cambodian ministry of education executed a ten-year education system (4+3+3). Then, the education structure was extended to an 11-year system (5+3+3) from 1986 to 1996.

1-2. The Current Education System in Cambodia

Considering the quality of education, and in response to the achievement of the nine-year basic education for all, the Ministry of Education, Youth and Sport (MoEYS) introduced a new 12-year education system (6+3+3) in the academic year 1996-1997. With this 12-year system, children are required to spend 6 years for primary education, 3 years for lower secondary education, and 3 years for upper secondary education level, which accounts for 12 years of general education (See Figure 1).

Figure 1 Current Education System in Cambodia



Source: UNESCO, 2006

1-3. Problem Statements

Education is a cornerstone of economic and social development (Lockheed & Verspoor, 1991, p.1). Equal access to education for everyone is crucial for a country in its sustainable development and seeing this, the Royal Government of Cambodia (RGC) is of no exception in placing great emphasis on education as a major tool for social and economic development throughout the whole country. Since 2000, the RGC has committed itself to achieving universal enrolment and completion of primary education for all children by 2010, then expanding the equitable access to the completion of lower secondary education by 2015. With the assistance of international agencies and its commitment, the RGC has succeeded in increasing both gross enrolment and net enrolment rates at the primary education level. The gross enrolment and net enrolment rates reached up to 121.9 and 94.8 percent, respectively, in the academic year 2009-2010. However, the net enrolment rate for the lower secondary education is still problematic. The net enrolment rate only slightly increased from 31.3% in the academic year 2005-2006 to 32.6% in the academic year 2009-2010, although enormous efforts have been made to increase the number of enrolment.

Cambodian lower secondary education plays a vital role in providing all students with a breadth of knowledge, skills, Khmer language, mathematics, sciences, social studies, life skills, learning skills,

vocational education, moral education and personal development. It enables them to become productive members of the society to further their studies at the upper grades, participate in other vocational trainings or to participate in social life for the growth of Cambodian society. Thus, lower secondary education cannot be neglected.

To ensure the achievements of the goals for Cambodian basic universal education, it is critical to address the remaining problems in lower secondary education first, specifically the low net enrolment. Therefore, the findings of factors affecting the willingness of Cambodian students to pursue lower secondary education are of great importance to the achievements of Cambodian basic Education for All goals, and the keys to addressing such a major educational problem (low enrolment rate) in the Cambodian lower secondary education subsector.

2. Research Background

2-1. National Education Strategies

According to Article 68 of Cambodian Constitution (1993, amended in 1999), "The State shall provide free primary and secondary education to all citizens in public schools. Citizens shall receive education for at least nine years."

Since the adoption of the Millennium Declaration in 2000, Cambodia has expressed its full commitment to achieving the Millennium Development Goals (MDGs). In 2003, the global MDGs have been localized in Cambodia and called "Cambodia Millennium Development Goals (CMDGs)," which consist of nine goals: (1) eradicate extreme poverty and hunger; (2) achieve universal nine-year basic education; (3) promote gender equality and empower women; (4) reduce child mortality; (5) improve maternal health; (6) combat HIV/AIDS, malaria, and other diseases; (7) ensure environmental sustainability; (8) develop a global partnership for development; and (9) de-mining, UXO and victim assistance.

In order to achieve the CMDGs, the Cambodian government has been consistently revising its Education Strategic Plan (ESP) during the last decade. This implies that the ESP is considered as a cornerstone for achievement of CMDGs. The ESP is guided by the long-term vision of achieving the holistic development of Cambodian young people from the MoEYS. Through the ESP, it is expected that there will be an expanded provision of easily accessible, good quality of education opportunities for all Cambodians. So as to embark upon these educational objectives and its vision, MoEYS has defined three main policy priorities as follows: (1) ensuring equitable access to education services; (2) improving the quality and efficiency of education services; and (3) providing institutional and capacity development for educational staff for decentralization.

For the lower secondary education level, one of MoEYS's top policy priorities is to ensure equitable access and quality/efficiency improvement for nine years, for both formal and non-formal basic education by 2010, with a special focus on:

- Increasing enrolment of students in grades 1-6 and in grades 7-9;
- Promoting gender, socio-economic and urban/rural parity in primary education enrolment, alongside improved gender, socio-economic and geographical balances in grades 7-9;
- Improving survival rates across grades 1-6 and grades 7-9 for new and current age cohorts;
- Raising progression rates throughout grades 1-6 and transition rates from grades 6 to 7, etc.

The program, 'Strengthening of Quality and Efficiency in Secondary Education', has been revised in the ESP 2009-2013 in order to reduce the access barriers and to increase grade 7-9 survival and grade 9-10 transition rates at the lower secondary education level. It sets up targets and indicators of the program as follows:

- An increase in net enrolment rate in grades 7-9 from 32% in SY 2009-2010 to 51% in SY 2013-2014.
- An increase in transition rate in grade 9 -10 from 73% in SY 2009-10 to 85% in SY 2013-14.
- An increase in student achievement in standard curriculum for grade 9 Khmer literature from 62% in SY 2009-10 to 80% in SY 2013-14.
- An increase in student achievement in standard curriculum for grade 9 mathematics from 32% in SY 2009-10 to 70% in SY 2013-14.
- To have 45 fully resourced lycees (secondary schools) in SY 2013-14.
- An increase in growth enrolment rate for grades 10-12 from 32% in SY 2009-2010 to 40% in SY 2013-14.
- An increase in completion rate in grades 10-12 increased from 70% in SY 2009-10 to 80% in SY 2013-14.

2-2. Achievements of Cambodian Basic Education

Since the MoEYS articulated the policies in the ESP 2006-2010, significant efforts and achievements have been made during these periods, including the lower secondary sector, although the increase rate of lower secondary school has been less dramatic compared with the primary sector.

The total number of primary schools, colleges and lycees has increased significantly from 8,628 during the school year (SY) 2005-2006 to 10,115 in SY2009-2010. The increase number at different levels are as follows: primary schools from 6,277 in SY2005-2006 to 6,665 in SY2009-2010; lower secondary schools from 911 in SY2005-2006 to 1,172 in SY2009-2010; and upper secondary schools from 252 in SY2005-2006 to 383 in SY2009-2010. As for the lower secondary education level, the net enrolment rates (NER) has increased from 31.3% in SY2005-2006 to 32.6% in SY2009-2010, which is lower than the target of 43% NER (Midterm Review Report).

These achievements are attributed to the efforts made by the RGC in providing all forms of education and learning services. In addition, support provided by development partners, as well as the

participation of communities by encouraging their children to continue education, are additional contributors to these achievements.

In terms of the promotion of education efficiency, the MoEYS has actively tried to reduce the repetition and dropout rates as well as to increase completion rates at all education levels. The MoEYS has also organized enrolment campaigns to offer education free-of-charge and to raise the awareness of the value of education among parents. The completion rate in lower secondary education almost achieved the target, while the one in upper secondary education surpassed the set target. Also, in order to achieve the third goal of the CMDGs (Promote Gender Equality and Empower Women), many major policies and reform programs are now transforming to become gender-responsive. Policy-making is also more participatory and inclusive of women (UNDP, 2010). Additionally, the ratio of girls to boys in lower secondary education increased from 36% in SY2001-2002 to 77% in SY2005-2006, which means that the reduction in the gender gap nearly reached the target.

3. Research Questions and Objectives

This research will seek answers to the following question "What are the factors affecting students' willingness to pursue lower secondary education at Sambor Commune in Cambodia?"

The objective of this study is to identify the factors that affect students' willingness to continue their education at lower secondary schools, particularly those in the rural areas where poverty is more prevalent and dropout rates of lower secondary education are higher than urban areas in Cambodia. Moreover, it will provide more literature on the existing issues facing Cambodian lower secondary schools and useful information for policy makers to find ways to increase the net enrolment rate for lower secondary education, enhancing competitiveness



4. Hypotheses

Given the review of the educational background and problem statements about lower secondary education in Cambodia, we assume that the students' willingness can be influenced by factors from four main perspectives as follows:

Family perspectives

A family's economic situation, the parents' background and gender attitudes affect student's willingness to continue on to lower secondary schools.

Student perspectives

A student's academic performance, interests and health are the factors influencing their willingness as well.

School perspectives

Textbooks, scholarships, sanitation, teachers' ways of teaching, facilities and relationships with classmates or teachers influence their willingness to pursue lower secondary education.

Society perspectives

Community ideology, distance from school and impact from their working friends are also important factors.

5. Methodology

5-1. Research Site

About 25 kilometers northeast of Kampong Thom Town, Sambor Commune is one of ten communes in Prasat Sambor District, Kampong Province, which is located at the geographic center of the Kingdom of Cambodia. According to the Provincial Department of Planning, the commune's population in 2010 was 13,818 in 2,685 households, 448 of which were headed by females. Of the total population, 47.9% was between 18 and 60 years old, and 94.66% of the households depend on agriculture for their income. According to the statistics from District Education Office, in Sambor Commune there were twelve primary schools with 83 teachers and three lower secondary schools with 10 teachers. In the academic year 2012-2013, there were 2,252 primary school students and 348 lower and upper secondary school students.

5-2. Research Methodologies

We conducted the interviews at the Provincial Department of Education and District Education Office. In addition, five primary schools and two high schools were selected from among twelve primary schools and three high schools in Sambor Commune. The selection was made based on the high number of



students in each school. The five primary and two lower secondary schools are: Chramah primary school (PS), Prek PS, Char Chrum PS, Kampong Chheu PS and Or Kruke PS, Kampong Chheuteal High School and Prasat Sambor Lower Secondary School.

A combination of qualitative and quantitative approaches was applied. A questionnaire was distributed to 70 students from the five primary and 9 from the two lower secondary schools. The interviews were conducted with the

chief of the Provincial Education Department, the deputy chief of the Sambor Commune Education Office, 7 school principals, 8 teachers, and 30 parents (See Table 1).

Date	Research Site	Respondents	Research Tools	Remark
	Kampong Thom	Director, Dept. of	Interview	One director
August 28	Town (AM)	Education	questions	
	Chramah Primary	Grade 6 graduates/	Questionnaire/	- 14 students
	School (PM)	Teachers/ School	Interview	- 5 parents
		Principal/ Parents	questions	- 1 teacher
				- 1 director
	Prek Primary	Grade 6 graduates/	Questionnaire/	- 14 students
August 29	School	Teachers/ School	Interview	- 5 parents
		Principal/ Parents	questions	- 1 teacher
				- 1 director
	Char Chrum	Grade 6 graduates/	Questionnaire/	- 14 students
August 30	Primary School	Teachers/ School	Interview	- 5 parents
		Principal/ Parents	questions	- 2 teachers
				- 1 director
	Kampong Chheu	Grade 6 graduates/	Questionnaire/	- 14 students
August 31	Teal Primary	Teachers/ School	Interview	- 5 parents
	School	Principal/ Parents	questions	- 2 teachers
				- 1 director
	Or Kruke Primary	Grade 6 graduates/	Questionnaire/	- 14 students
September 3	School	Teachers/ School	Interview	- 5 parents
		Principal/ Parents	questions	- 2 teachers
		~		- 1 director
	Kampong	Grade 7 graduates/	Questionnaire/	- 9 students
September 4	Chheuteal High	Teachers/ School	Interview	- 2 teachers
	School and Prasat	Principal/ Parents	questions	- 2 directors
	Sambor Lower			
	Secondary School			

Table 1 Field Research Sch

6. Research Findings

Based on the data collected from the questionnaire survey to students and interviews with the chiefs of Provincial Education Department and District Education Office, school principals, teachers and parents at 5 primary schools and 2 lower secondary schools, we found several significant factors affecting the students' willingness to continue their studies at lower secondary schools. As we hypothesized, the factors were divided into the four perspectives as follows:



6-1. Student Perspectives

According to our research findings, five factors were found to have a strong influence on students' willingness to pursue lower secondary education.

Expectation of education level: According to the findings, 41% of the respondents expected to finish at least upper secondary schools and 34% university (See Figure 2).



Figure 2 Expectation of education level attainment

Self-confidence or the ability to do something as well as others: Based on research results, 54% and 27% of the sample strongly agreed and agreed that they are able to do things as others can do (See Figure 3).



Relationship with classmates: According to our findings, 46% of the respondents had a very good relationship with their classmate and 33% good. No students reported having a bad relationship with their



Figure 4 Relationship with classmates

Relationship with teachers: According to the research results, 59% of the students liked their teachers very much and 32% liked their teachers. The relationships between students and teachers were very good (See Figure 5).



The distance from home to school: Based on our findings, 86% of our respondents did not live far from

school. In addition, there were three lower secondary schools within the commune (See Figure 6).

Figure 6 The distance from home to school



6-2. School Perspectives

From school perspective, actions by the school principals and teachers have a profound influence on students' willingness to pursue their studies at lower secondary schools.

Principal's Action

Based on the results of the interviews with principals in five primary schools, we found that the principal's action – improving school management, enhancing teachers' responsibilities and increasing awareness among students and parents – affected the students' willingness to pursue their education.

- Improving school management: Through the improvement of the school management system, principals are able to influence the willingness of their students. To achieve better school management, principals set up goals that have to be achieved by both teachers and students. At the beginning of school year, all five primary schools set targets to promote a specific number of students to lower secondary schools and these targets have almost been achieved. In addition, the principals try to seek funds from NGOs to support the students. One of the principals we interviewed said that he sometimes writes proposals to ask for support from NGOs to make a contribution to a better school environment. Moreover, principals themselves actively participate in the educational management skills.
- Enhancing responsibility of the teachers: Principals are requiring the teachers to be more responsible for their duties. They request teachers to be on time and to spend more time on their lesson preparation. Consequently, the enhancement of teachers' responsibility positively affects school environment and improves their teaching performance, which in turn influences the students' willingness to continue their studies. Among our interviews, one of the principals reported that he holds weekly/monthly meetings with teachers and encourages them to exchange their class management experiences with each other.
- Increasing the awareness of the students: During the interviews, one of the principals stated that in order to encourage students to pursue a higher level of education he sometimes invites alumni to school to talk about the importance of education and share their successful life experiences. In addition, he tries to persuade the school dropouts to come back to school through visits to the students' homes.
- Increasing the awareness of the parents: Principals also make efforts to raise the awareness among parents about the value of education through meetings and home visits. Now, the majority of the parents have changed their perception and decide to send their children to further their education.

Teachers' Actions

Teachers' actions can affect the students' willingness to continue their studies at lower secondary

schools. According to the interview results, we summarize those actions into three parts as follows:

- Knowledge improvement: The general situation at the research site is that most of the teachers at primary schools have graduated from high school and attended two-year teacher training program called 12+2. However, when interviewed, some teachers said that they were continuing their undergraduate programs on weekends to broaden their knowledge and skills. Moreover, they also actively participate in teacher training programs, run by international agencies, to upgrade their teaching skills annually, such as training programs on children's special needs, nutrition improvement and library management. They attend these even though the training venues are far from their workplaces.
- Pedagogy enhancement: Two of the teachers we interviewed said that they often employ a childcentered approach to teach their students. For example, they encourage students to work in groups to inspire them to think of interesting topics by themselves through discussion. Mistakes are welcome and later corrected by teachers. Since the economic condition of the research site is less developed compared with that of other communes, the school facilities are not well equipped. Most of the schools lack teaching materials, thus teachers try to find ways to improve teaching quality. For example, some teachers donate their own books to the school libraries so that students can read as many books as possible. Moreover, one of the teachers we interviewed said that she sometimes buys teaching materials by herself. Another teacher stated that when he teaches mathematics, he encourages students to use natural resources in order to make up for the lack of teaching materials. For example, he let the students go out of the classroom and count the leaves to help them have better understanding.
- Raising awareness of parents and students: The awareness of parents and students about the value of education play a very important role in influencing the willingness of students to continue their studies. Most of the teachers say that they have good relationships with the students' parents because they usually visit their homes and talk about their education situation with their parents. One of the teachers explained that she has a student who dropped out but she tried several times to persuade his parents to send him back to school. Eventually, he came back. Furthermore, teachers always try to emphasize the importance of education at school by explaining that if the students have a higher level of education, they will be able to get a well-paid job and have a better future.

6-3. Family Perspectives

According to our questionnaire to students and interviews to their parents, we discovered that a family's environment, which includes parental relationship, encouragement from the parents, parental expectation and awareness, all have a significant influence on a student's willingness to continue lower secondary education.

Parental Relationship

Among the responses from student questionnaire, one of the variables, which was aimed at investigating the students' "parental relationship," corresponded to the question, "How often are there arguments in your family?" Of the students that responded, 41% and 48%, stated that, arguments within their families, never and rarely happen, respectively (See Figure 7). The results imply a positive correlation between a relatively harmonious parental relationship and good family environment, which further influence on the student's choice to pursue their further education.



Figure 7 Parental Relationship

Parents' Encouragement

In addition, "parents' encouragement" was also found as a significant factor which makes a contribution to constituting a good family environment to influence a student's willingness to pursue further education, through supporting evidence from both the student questionnaire and interviews with the parents. By answering the question "Do your parents encourage you to go to school and study hard?" in the questionnaire, students showed a prominent commonality in that most of their parents were very encouraging.. Based on the results, 29% and 47% of the parents always and often encourage their children to study further (See Figure 8).



Figure 8 Parents' Encouragement

From interviews with parents, we found some consistency to support this point through the parents' narratives. Encouragement mainly included ways of:

- Oral encouragement: Parents always inspired their children to pursue further study by saying, "you must study hard, then you may get a good job and earn a lot of money"; "if you go to university, you could find a job in the office, not like farmer, who work very hard but earn little"; "you have to work hard and do not like your parents who have low education and were always looked down by others" and so forth.
- Material encouragement: In most of our interviews, the financial condition of the families were not so healthy; however, parents all insisted in supporting their children to receive education as long as their children wanted to or they still had the ability. Some families even borrowed money or did extra labor work outside, selling snacks to earn supplementary income to support their children's study, including payment for books, transportation,¹ additional classes and snacks to eat at schools.
- **Model encouragement:** Some families also encouraged their children to study hard by citing the successful story of themselves or relatives. For example, in one case, the mother's fourth child had finished upper secondary school. He now works in Phnom Penh as a photographer for a TV company and still continues to study at evening classes at a university. The mother stated that she always encourages the rest of her children to study hard with the case of fourth child as a good model.

Parents' Expectations

Similarly, the parents of our sample students who already decided to go to lower secondary school all demonstrated a relatively high expectation towards their children's education level and future. According to the results from student questionnaire, 56% of the respondents reported that their parents expect them to study until they finish Grade 12 and 29% parents hope that their children receive higher education in the universities (See Figure 9). Consistent with the interviews from parents, all respondents expect that their children can finish at least Grade 12, and if they can continue to afford and their children study hard enough, they are willing and proud to send their children to universities. Moreover, these parents have high expectations about their children's future as well; most of them want their children to find decent jobs, such as medical doctors, teachers, government officers or NGO staff, instead of being farmers. All in all, the high expectation will seems to translate into daily encouragement and real actions to impact their children to continue further study.

¹ In our study, transportation mainly refers to bicycles. Most respondents stated that they needed to buy bicycles for their children to go to lower secondary school.

Figure 9 Parents' Expectation



Parents' Awareness

Based on parent interviews, a very important factor, which directly affects the family's environment to influence their children's willingness to pursue further education, is the increase in awareness about the importance of education.

- Some narratives from parents regard education as a way to promote their life standard and social status, such as "If my children can have higher education, they would find better jobs and would get good salary"; "I wish my children could receive higher education and get good salary, then they could help to support family"; "I hope my children to study hard and have better jobs, then people would respect them, not like us, we are farmers."
- Some parents realized the value of education as an engine for the development of their community by saying, "I want at least one of my children to be a teacher in the village. I have no chance to receive education and if my children can be teachers, they would make a valuable contribution to help educate other children. I know that children are the future of the village". In one case, the mother wanted her child to become a doctor, as there are not enough doctors in their village. "I hope my children can be doctors in the village, there is no health center in our village, and it is too difficult for us to see doctors. I wish my children would improve the health situation of our village."

In addition, according to our interview results, we found less gender discrimination among the respondents. Many parents hold the same ideas about keeping their daughters at home to help with housework and get married early. They also have concerns that it might be more dangerous for daughters than their sons to continue their studies outside. However, they still share the common agreement that if their daughters want to continue their studies, they are willing to support and it doesn't matter between, sons or daughters, they should have more education. This kind of awareness is increasing to establish a very crucial foundation that affects a student's willingness to pursue further education.

6-5. Society Perspectives

Government Support

- Scholarships: The Cambodian government supports poor students with a scholarship allowance of 180, 000 riel/a student/year. All principals interviewed at the five primary schools stated that around 3-5 students per school get a chance to receive scholarships for three years at lower secondary schools.
- Short-term workshops for teachers: 3-5 day workshops are held by the Provincial Department of Education during summer vacation. Teachers receive training services on topics of library management, skills, and support for disadvantaged students, etc.

NGOs Aid

NGOs have been implementing their own activities effectively in Kampong Thom province in Cambodia. Their activities support students, especially those who come from poor families. This support is not only financial, but also food, clothes, bicycles and learning materials.

- Since 2005, the World Food Program has provided rice, beans, canned fish and rice cookers for poor students to prepare daily breakfasts
- Since 2008, World Vision has constructed toilets and wells, supplied uniforms, tables, and clean water;
- UNICEF constructed school buildings such as classrooms and libraries;
- "Room to Read" program, sponsored by local NGOs, provides library services for students. At Chramah PS, the program donated a number of books, two bookshelves, four reading tables for the students and one table and one chair for the librarian. In addition to the facilities, NGOs also hold library training in the province for school principals and librarians. By 2012, this program had been running for four years;
- A program sponsored by the local organization Mlob Bay Toeng (Green Shadow) provides one set of school uniforms/per year/per student for 35 students for 3 years. With the purpose of educating students about how to protect environment, starting in 2010, the Green Shadow program formed a club in Chramah Primary School choosing one principal and 2 teachers as coordinators.

Kampong Chheuteal High School

The Thai royal family has been supporting Kampong Chheauteal High School. Every year, 252 students are enrolled. As one of the three schools providing secondary education, Kampong Chheauteal High School, which is considered as a promising school for students living in Prasat Sambor District and beyond, has become a significant factor to attract students to pursue their studies at lower secondary school.

• Kampong Chheuteal High School attracts students due to well-equipped facilities supported by the Thai royal family such as computer labs, laboratories, and dormitories for teachers and students from remote areas;

• It has a program to support students to study in Thailand after grade 12, to continue on to undergraduate education or vocational training. Because the school helps students with living expenses and scholarships when they go to Thailand, helps to motivate them to continue their education after basic education.

7. Conclusion

In order to complete the mission of EFA and improve the quality of national education, the Cambodian government has made a great effort to overcome obstacles at the lower secondary level. By nature, the main partner of the education process is the student. Thus, identifying factors affecting the students' willingness to continue their education at lower secondary schools was the objective of this group research. Without necessarily analyzing the external factors, which might depress a student's eagerness to lower secondary school, this research was aimed at providing push factors for the stakeholders to find ways to enhance the willingness to continue education. It has been found that the factors that come from the students themselves, the schools, their families and society, positively influence a student's willingness to further their education. Beyond the hypotheses, the most interesting finding is the attractive influence of Kampong Chheauteal High School. The well-equipped secondary school and high school turned out to be a pull factor to attract students.

To summarize, in the case study of Sambo Commune in Kampong Thom Province in Cambodia, in addition to the students' willingness, strong support from school principals, teachers, family members, the government, and NGOs is also playing a vital role in encouraging students to further their education.



8. Scope and Limitation

There are two main limitations in this study. First, this study was conducted in five primary and two secondary schools in one commune in Prasat Sombor district in Kampong Thom province. In this regard, the results of the study can be generalized, to a certain extent, within the district, and not for all lower secondary school students, their parents, teachers and school administrators. Furthermore, all aspects of school factors could not be thoroughly examined due to the time constraint.

9. Acknowledgement

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Working Group 3

Migration in Sambor Commune, Kampong Thom Province, Cambodia

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Migration in Sambor Commune, Kampong Thom Province, Cambodia

1. Introduction

Background

Cambodia is a small county in Southeast Asia with a population of nearly14 million. Approximately 85-90% of the population live in villages and depend primarily on agricultural activities. Though overall poverty level has trickled down from 47 % in 1993 to 30 % in 2007, a third of Cambodians still live below the national poverty level. Poverty in rural areas is widespread and as much as 92% of the total rural population lives in poverty. As per the data published by Ministry of Planning (2005), internal migrants in Cambodia are approximately 35% of the total population (NIS, 2005).

Population migration in Cambodia is not a new phenomenon, but in the beginning of the 21st century, it has emerged as a top policy issue for the government (Review of Migration in Cambodia, Dec 2008). However, Cambodia is still in the early stages of labor migration management. As per the report published by International Organization for Migration (IOM) 2006, Cambodian migrants view migration itself as a short-term coping strategy to overcome unexpected problems and not as a long/medium-term process aimed at increasing the socio-economic status of the family. Those who decide to migrate from Cambodia are often driven from their home communities by an overwhelming predominance of push factors as opposed to pull factors. These push factors include chronic poverty, landlessness, lack of employment, lack of access to markets, materialism, debt and natural disasters such as droughts and floods (IOM, 2006). These migrants often find employment in 3D jobs (Dirty, Dangerous and Disliked), which only allows them to maintain the status quo, rather than improving their standard of living. Other factors involved in the rapid increase in the internal migration, especially in the case of rural to urban migration, include such reasons as a surplus labor force, lower income and a drive by the youth population. The growth of the migration movement is caused not only by the decision of the individuals, but is influenced by globalization and a new organization of labor that has seen many manufacturing activities moved to third world countries. For example, the garment industry in Cambodia is a major pull factor for the migration of women. There are also certain trends that have been observed in the pattern of male and female migration in Cambodia. According to the 1998 census, male migrants were slightly more likely to have moved to rural areas and female migrants to urban areas. Several reasons for migration are raised in the census including family ties, the recent turbulent history of Cambodia and natural resource insecurity.

In 2005, there was an increased awareness about the relevance of migration at the national and international level. Even the Cambodian government has recognized that migration provides opportunity for families and individual workers to realize an improvement in their economic well-being (Ministry of Labor and Vocational Training, 2010). Since then lot of work has been done by the Cambodian government to promote safe and legal migration at the national and international level. In the 2006-10 strategic plan of the

Ministry of Labor and Vocational Training, the government set out a mission statement stressing migration's role in contributing to economic growth, equity and improved living conditions among the Cambodian people. The ministry has adopted four strategic areas: promotion of local and foreign employment, improvement in rights at the workplace and better working conditions, creation of a national social security system and development of technical and vocational skills for local and foreign labor markets. The strategic policy also focused on improved management of foreign employment, expanded protection of migrant workers, strong inter-ministerial coordination and intimate international cooperation.

Apart from policy framing at the national level, the Cambodian government has ratified all eight ILO(International Labor Organization) conventions and has been a signatory to the to the UN Convention on the 'Protection of All Migrant Workers and Members of Their Families,' as well as a member of the Committee on the Elimination of Discrimination against Women (CEDAW). The government is also a signatory to the ASEAN Declaration on the Protection and Promotion of the Rights of Migrant Workers adopted by the Head of States on 13 January 2007. In the recent past, the Cambodian government has been actively involved in bilateral talks with neighboring countries in the promotion and legalizing of international migration, resulting in such accomplishments as the recognition of migrant workers in Thailand.

Purpose of the study

Like many other areas in Cambodia, Sambor Commune is also experiencing labor migration to other provinces and areas in the country. The study, therefore, will try to:

Investigate the phenomenon of migration in Sambor Commune, focusing on the difference between migrant and non-migrants households.

Examine how migration can help local people to improve their standard of living.

Research questions and main hypothesis

The research questions can be divided into three question groups including migrant-families, nonmigrant-families and the relationship between migration and poverty reduction as follows:

1. Who are the migrants? What are their destinations? What is their decision-making process for migrating? What kinds of jobs do they do?

2. Why do non-migrants not migrate? What are their main sources of income? What is their decision-making process for not migrating?

3. How does migration contribute to poverty reduction?

The main hypothesis is that in overall, migration has a positive effect on the livelihoods of the villagers. Migrants send remittances to help their families while they are away and contribute to the local economy of the village when they return from their migration. Non-migrants also benefit from migration thanks to the flux of remittances and improvement of the local economy.

2. Methodology

Introduction of the field site

Fieldwork was conducted in Sambor Commune among four villages: Kampong Cher Teal, Atsu, Char and Chhar Mas. The fieldwork was conducted by a combination of students and professors from Nagoya University Graduate School of International Development (hereafter referred to as GSID) and from the Royal University of Phnom Penh (hereafter referred to as RUPP). The village chief introduced the migrants to the research team. According to the village chiefs, migration started around 10 years ago in this commune. The following table contains the statistics of population and migration destination countries for the four villages in the commune. The village chiefs provided this information.

 Table 1: Total population, number of households and migration destinations for the four villages in

 Sambor Commune

'August,2012'	<u></u>	
1,Char Village		2,Charr mas Villa
425 persons, 113 households		998 persons, 185
	Migration	
Malaysia	1	Malaysia
Thailand	1	Thailand
Phnom Penh	2	Phnom Penh
Total	4	Total
3,Kompong Chher	Tear Village	4,Atsu Village
2,063 persons, 488	3 households	1,117 persons, 18
	Migration	
Malaysia	1	Malaysia
Thailand	9	Thailand
Other Province	46	Phnom Penh
Total	56	Korea

2,Charr mas Village	ean
998 persons, 185 hou	ıseholds
	Migration
Malaysia	3
Thailand	30
Phnom Penh	0
Total	33
4,Atsu Village	
1,117 persons, 189 h	ouseholds
	Migration
Malaysia	2
Thailand	89
Phnom Penh	46

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Data collection

Data collection was done mainly through in-depth interviews. For migrant families, we tried to interview the migrants themselves but in cases where they were not present, we interviewed their relatives about the migrant person(s). We divided our group in two subgroups of three members from the GSID plus two members from the RUPP. Each day, each group interviewed 3 to 4 households. With a total of 6 to 8 interviews per day, with five days in the field, we interviewed a total of 35 households. Other than the migrants, we also interviewed the local director of the Department of Labor and Training as well as the local director of the Department of Social Affairs. The following table is the working schedule and the number of interviewed households.

Total

Table 2: Working schedule on the site and the number of interviewed households

Interv	iew schedule or	n the field	-	-	-	
Date	Time	Village	No. of household	Migration	Non-migration	Remark
28-Aug-12	Morning					Director,Dept. Labor&Training Dept. of Social Affairs
	Afternoon	Sambor Commune				
8	Morning	Kampong Chher Teal	4	4	0	
	Afternoon		4	4		
8	Morning	Kampong Chher Teal	5	2	3	One illegal
	Afternoon	At Su	4	2	2	
31-Aug-12	Morning	Char	4	2	2	
	Afternoon	At Su	3	1	1	
1	Morning	Chhar Mas	5	6	0	One middleman
	Afternoon	At Su	2	0	2	
04-Sep-12	Morning	At Su	4	2	2	
	Afternoon					
		Total:	35	23	12	

3. Findings and Discussion3-1. Phenomenon of migration

3-1-1. Migrant families

-Educational background of migrants

As the following graph shows, all of our respondents' had low educational qualifications, no one obtained a tertiary education and it was the same for both sexes. Only two female respondents had attained a 12th grade education, one 9th grade and only one male had attained a 7th grade education. The majority of them did not go past 5th grade. 'Unknown' in the graph indicates that the information could not be obtained, because, in more than a few occasions, we did not manage to interview the migrants themselves and thus had to interview their relatives instead. In such cases it was difficult to obtain information regarding education level, as they were not always aware of it. However, in all cases, the relatives made clear that the migrant did not have a strong educational background.

Figure 1: Educational background of migrants



Hence, in the Sambor Commune, migration is common among people who do not have a high level of education.

-Age range of migrants

It was quite interesting to note that the majority of the migrants ranged in age from 18 to 25 years. The following chart shows that 19 of 31 migrants (11 males and 8 females) were of that age group, while only 6 migrants ranged in age of 26 to 35, and very few were 40 and above. The trend shows that migration is quite common in the younger population. However, we can see a clear difference in the sex repartition: female migrants are quasi-nonexistent over the age of 40, which seems to indicate that older women tend to settle down when they have a family of their own.



Figure 2: Age range of migrants

-Reasons of migration

There were various reasons, that were invoked by the migrants, which led them to migrate either internationally or to nearby provinces within the country. These reasons included parental health issues, unemployment, poverty, job opportunities, the will to improve their living standards and recommendations from friends. Among all the reasons, it was found that poverty and the will to improve living standards were the major motivating factors that led the people to migrate. As shown by the chart, 35% of the respondents said they migrated due to the poverty, whereas approximately 42 % of the respondents migrated in order to improve their living standards. It is important to note the difference between these two reasons: when migrants told us they migrated because of 'poverty,' they meant that they could no longer support themselves or their families under their current situation, even if they had a job. Those who responded 'will to improve living standard' meant that although they were leading a relatively decent life before migrating, they chose to migrate in order to improve their living standards. Another reason was parental health condition, with12 % of respondents forced to migrate due to parental health issues. We found very few who migrated due to unemployment, better job opportunities and recommendations from friends.



Figure 3: Reasons of migration

-Destination of migration

In the case of external migration, Malaysia, Korea and Thailand were the three favored destinations for the migrant workers of Cambodia. The migrants, when migrating within Cambodia, preferred Phnom Penh, Siem Reap and other neighboring provinces. Among the international destinations we found that the majority of migrants went to Thailand. Twenty-one migrants went to Thailand and worked mainly in the construction and garment sectors. Other jobs, though in small numbers, included fishery, work at a glass factory, vegetable/pork sales and work on a sugarcane plantation (seasonal). In Malaysia, three migrants worked as domestic workers and one as a receptionist. There was only one respondent who was working in Korea and that was in a plastic manufacturing factory. In the case of domestic migration, the capital of Cambodia, Phnom Penh, was the most favored place. Our three respondents who migrated to Phnom Penh were working in a garment factory and in construction work. In other provinces, they go to work as drivers and sellers.

As per the above findings, we can say that Thailand (External) and Phnom Penh (Domestic) were the favored destinations for the migrant workers of Cambodia.



Figure 4: Types of job at destination areas for both internal and external migration

Types of jobs at the migration destination

In the analysis we found that migrants do a variety of jobs. For example, they work as construction workers, fishermen, in garment factories, in glass factories, as domestic workers, in marketing, etc. However, there are certain occupations where migrants work in larger numbers, such as construction (9 persons), in the garment industry (8 persons), as seasonal workers on sugarcane plantations (4 persons) and as domestic workers (3 persons).

Figure 5: Types of job for external migration



-Means of migration

Migrants chose various means to migrate internationally. For example, they went through a middleman (legally and illegally), through special company examinations and through private companies who regulate short-term migration. In our observation, we found that 20 migrants went through such private companies. In Cambodia there are many private companies that facilitate the process of migration and prepare all the necessary documents for the migration. These companies take all the responsibility and initially finance all the expenses. Once the migrants reach the destination country and start working, they typically have to start paying back the company. A large number, 8 persons, preferred to migrate through a middleman by legal means. These middlemen are usually working for the aforementioned private companies and consist of a local person in remote villages. But there were two cases where migrants chose to migrate through a middleman illegally. The reason why migrants chose a middleman to migrate in both cases is because the middleman is either from their village or a neighboring village and they have a strong sense of trust. There was only one migrant who migrated through a company examination. We learned that this type of migration is common in the case of Korea, although in this particular case the migrant went to Thailand. There are companies in Phnom Penh that conduct examinations and maintain a website of the names of qualified applicants for those who want to migrate to Korea.

Figure 6: Means of migration in the villages



-Problems of migration

In our analysis, we found that 52% of our respondents said they had faced problem during migration while 48% said they never had any problem while working abroad. On asking about the problems they listed several: five of them said they felt homesick, four complained about exhaustion and tough working conditions, three were not happy because of the low salary, five migrants faced problems such as health issues, being arrested by police, suffered electric shock in the workplace, had trouble with their boss and employer abuse. The last two problems typically meant the employer held the salary of the employee until the end of the contract, which seemed to be quite common in Malaysia, while being arrested by police happened typically to illegal migrants.



Figure 7: Percentage of migrants who faced problems/types of problems during migration period

-Current status of migrants

The majority of the migrants interviewed were still working in their place of migration. And those who had come back did so mainly because their contract ended or because of health problems. The typical contract with a private company is two years, after which the migrant has to return to Cambodia. However,

people can apply indefinitely to renew such contracts, so most migrants who had finished their contract period stated that they wanted to migrate again.



Figure 8: The current status of migrants

3-1-2. Non-migrant families

-Reason for not migrating

In order to get a holistic perspective, non-migrant households were also interviewed to know their perception about the phenomenon of migration, and especially the reason behind their decision not to migrate, despite living in a community where a large number of people migrate every year, for one reason or another.

Among the respondents of this study, we found that the non-migrant families did not migrate because of various reasons: four had a good family situation; two viewed migration as a loss of self-respect in the host community; two did not migrate because they had family responsibilities; one person was saving money to migrate internally, while another was saving money to migrate internally; one said their partner does not want them to migrate; and the last person was in the process of migration.

Here we found a major shift between migrants who had a stable source of income and those who did not. For example, non-migrants who had a stable source of income generally felt that migration was an attack on their personal status. But in some cases we also found that these non-migrant households had a positive opinion in the case of domestic migration. On the other hand, those who did not have a stable source of income were always thinking about migrating and in some cases they had even started the process of migration and were waiting for the authorization.




-Type of jobs

The non-migrant families engaged in many occupations such as teaching, farming and working in a cement company. Nine of the non-migrant families said their primary source of income was farming activities, two from teaching in primary school and one in secondary school. However, many of them had more than one occupation. In order to better show the diversity of occupations, we assigned different weights to their occupations, depending on whether it was their main or secondary occupation. The graph below shows that farming still is the main source of income with (58%), but there were other activities helping families with their income, such as fishing, tailoring and driving.

Figure 10: Types of jobs of the non-migrant families



3-2. Migration and poverty reduction

3-2-1 Perception about migration

-Opinion about migration

To examine the perception of villagers about migration, we also asked them to express their opinions about migration.

In our analysis we found that there is a common trend in both migrant and non-migrant households. Sixty-eight percent (68%) of migrant households have a positive opinion about the entire concept of migration because it helps them come out of poverty, improves their living standards and economically empowers them as well. Nineteen percent (19%) of our respondents had mixed feelings while 3% had positive opinions only in the case of internal migration because they think that migrants can visit home frequently and communication is easier. Another 10% of the respondents abstained from making any judgment on the issues of migration.

On the other hand, 39% of non-migrant households showed a positive attitude towards migration. Twenty-three (23%) showed mixed opinions, 23% had a totally negative opinion of migration and 15 % had a positive view of internal migration.



Figure 11: Opinions about migration

3-2-2. Remittances and the uses of remittances

-Remittances by gender

We have analyzed the data, splitting into two parts, and taking into consideration both genders. Approximately five women and four men never sent any remittances home, while twelve women and nine men did. If we generalize this finding, we can say that female migrants tend to send remittances more than male migrants. We have also tested this theory during interviews. We asked our respondents whom they would prefer to migrate and the majority of them said they would prefer a woman because they always send remittances, while in some cases, the men do not(they typically cited reasons that men tended to spend more and go out drinking often). Therefore, we can conclude that there is strong preference for females to migrate.





Figure 13: Remittances by gender, amount and destination countries





Figure 14: Comparison of remittances between internal and external migration and among different overseas countries

This graph gives us a clear picture about the frequency of the remittances sent to home country from the destination country. In our analysis, we found that migrants who migrated to Thailand sent remittances quite frequently compared to other countries like Malaysia and Korea. The frequency is also higher when comparing with internal migrants. But interestingly, migrants who migrated to Korea, though they sent remittance only once, typically sent an amount much higher than migrants of Thailand and Malaysia. As for internal migrants, it seems that most of them prefer to take the money back directly instead of sending it as a remittance. Some of migrants who went to Thailand also have this tendency, which is indicated in the 'irregular' category in the graph. The irregular category also includes sending money back irregularly or cases where the interviewee didn't remember the time and the amount.

-The uses of remittances

Migrant households and migrants themselves (when they returned) used remittances for various purposes, such as to buy jewelry, land, motorbikes, other labor for agricultural activities, pay back loans, repair or build a new house, savings and support of other activities like children's education fees. For the majority of interviewees, the remittances were mainly to improve their living conditions, either by buying land or by repairing or building a new house.





-Remittance sending

In the case of how remittances were sent, both internal and external migrants favored bank transfer. However, three international migrants brought the money back by themselves and two of them chose a person they trusted to take the money back. In the graph below, however, the 'unknown' category is the highest since the interviewees didn't respond very clearly or they didn't know how the remittances were sent.



Figure 16: How remittances were sent back to migrant home

3-3. Comparisons between migrant-households and non-migrant-households

3-3-1. Decision-making process

For the decision-making process, we categorized them as decisions made by "father," "mother," "wife," "husband," "personal" and "common." "Personal" means it was the migrant who made the decision to migrate. "Common" means that the decision was reached by the consensus of father, mother (or wife and husband) and other members of the family.

Figure 17: Decision-making process for migration of both migrant and non-migrant family Migrant / Non-migrant families



In the case of migrant households, we found that in eight (8) cases, the highest amount, the decision was made by the mother, followed by common decision (7), personal (6) and father (4), respectively. The wife or husband made the decision in the same number of cases (3 each). Meanwhile, for the case of non-migrant households, in nine (9) cases the decision was common, in two (2), the mother had the final say, one (1) case it was the father and another case both parents refused to let their child migrate.

It is interesting to point out that the mothers in migrant families have an important role in deciding to migrate or not. During our interviews, there were many cases that the women or the wife/mother encouraged or forced their husband/children to migrate to seek a job and earn money. This reality reveals that the women, or mothers, have powerful voices in the decision making process of their family in these local villages. We realized that Cambodian society is different from other Asian societies, in that the parents often live with their daughter rather than their son. Indeed, after marriage it is the groom who often moves in and stays with the family of the bride. The daughter is responsible for taking care of their ageing parents. In both cases of migrant families and non-migrant families, the mother has the stronger voice than the father (8 cases compared to 4 in migrant families and 2 cases compared to 1 for non-migrant families).

In addition, when we asked the interviewees whether they want their children to continue living and working as a migrant, most of them wanted their children to live with them in the village, if they could find job. However, many of them said that it depended on their children's decisions. They will respect their decision to keep migrating or to return home. This fact shows that to some extent, young people in Cambodia have freedom to decide their own lives.

3-3-2. Visual properties

Though there weren't a large number of rich and successful migrants in the four villages, still differences between rich and poor migrants, as well as between migrant families and non-migrant families were seen. The discussion about these differences is based on their visual properties such as houses and vehicles.

Houses are the most observable items. We found that there are differences between the houses of poor non-migrant families and migrant families (both poor and rich). The differences can be seen in the materials used for the houses, the area and furniture. While many poor non-migrant families' houses are small cottages, made of bamboo or wood that tend to look very unstable, the migrants' houses are made of cement or wood and look much stronger. In addition, the poor non-migrant families' houses seemed to be smaller in stature. Photos1 and 2 clearly show these differences.

However, for many of the wealthy, non-migrant households, they already had houses that were similar to the successful migrant households. In a few cases, some wealthy non-migrant families had better houses than the normal migrant houses. These non-migrant families usually had good ways of earning a living in their village. For example, one family ran a small business of milling rice and raising pigs, while another family sold groceries (the wife) and the husband was a primary school teacher.



Photo 1: Non-migrant family



Photo2: Migrant family



Photo 3: Wealthy migrant family

Photo 3 shows the house of a wealthy migrant family. The three daughters of the family migrated to Thailand. Two of them returned home, got married and now run their own business. This is the only case we found in Sambor Commune where a migrant family had a very big and nice house. They even owned a car.

Some migrant families said that they used remittances to buy motorbikes, though the investment for a motorbike is not very popular and people preferred to use remittances for daily consumption, education expenses or savings. Common household items such as TVs, fans and so on, were not that prevalent for both migrant and non-migrant families in these villages. However, we found some migrant families who had TVs and/or electronic fans. The wealthy migrant family in pictured in Photo 3 owned TV, electronic fan, car and had beautiful interior decoration.

At the time of the research there was only a few wealthy migrant families in the village but this might be explained because the period of time for migration was not long and most migrants worked in lower-skilled or un-skilled jobs. However, for some families that have more than one member who migrated, their lives seemed to be better than non-migrant families or those with only one member who migrated.

3-4. In-depth interview with key informants

3-4-1. Migration and the perspective of the governor of Kampong Thom Province

We had the chance to interview the director of the Labor and Vocational Training Department of Kampong Thom Province. He explained the government's opinion about migrants in Cambodia. In this province, there are approximately 40,000 legal migrants and 30,000 illegal. Migrants are all over 18 years old. Basically, poverty is the main factor that instigates both internal and external migration. Most of the migrants lack education and are involved in human trafficking or through informal agencies, which makes them illegal. The government tries to promote legal migration and stop the illegal migration.

Regarding external migrants, he said migration reduces the possibility of finding excellent leaders, which indicates that he believes migration causes bright people to leave Cambodia. However, conditions are different in different countries. For example, the government thinks it is good that people migrate to the developed countries, like Kuwait and South Korea, where they can obtain more technological skills and the wages can enhance their living standards. He especially mentioned South Korea and stated that they encourage people to go to Korea to learn new technologies in the electrical and agricultural fields. The government is negotiating with South Korea to extend visas from the current three years to five. On the other hand, the government is not encouraging migration to Thailand and other developing countries. In Thailand, migrants work illegally as construction workers and fishermen and in Malaysia, they work as domestic workers. All the jobs are low pay, low skill. Many measures are being taken to educate the people about the work in the foreign countries and issues related to migration. The government is now thinking to put an end to migration in 2015because of internal labor shortages, and they are trying to increase the wages in Cambodia.

Regarding internal migration, a lot of women migrate to Phnom Penh to work in garment factories The government is working on vocational training for rice planting and fishing and every province has a center like Kampong Thom. The center promotes job training for poor people, dropout students, retired military men, women and disabled persons as priorities. In 2015, the government plans to lend 10,000 ha to a private company for a plantation that can employ approximately 20,000 workers.

NGOs contribute to help the issue of illegal migrants. Sufficient support like food, schools, and health centers are being provided to tackle the problem of migration in Cambodia.

In conclusion, according to the interview, the government doesn't want people to migrate and is trying to reduce the number of migrants through supplying more jobs and encouraging people to run businesses in Kampong Thom Province to prevent illegal migration.

3-4-2. Migration and the perspective of the director of Kampong Thom Province's Department of Social Affairs

As with the governor, the head of this department also mentioned that poverty is the main reason for people to migrate. She wasn't supportive of migration at all. She stated that migration creates a lot of problems, especially for illegal migrants. For internal migrants, high wages in big cities also means high expenditures and for external migrants, she stated that drug, and sometimes mental, problems can be an issue. This office works to support the returning migrant with their mental problems and tries to educate people through word of mouth. Even though they realize it is impossible to stop people from migrating, they try to educate people on how to migrate legally. However, they are often short of staff and have a limited budget. The TPO (*Trans-cultural* Psychosocial Organization) from UNICIF has helped with the mental issues of migrants but this funding is also scheduled to stop in Kampong Thom Province.

3-4-3. Migration and the perspective of a village chief

Fortunately, we had the opportunity to interview the chief of Atsu Village. He has been a chief of this village for almost 30 years and was recently promoted to commune chief, but refused to accept the position. He says that migration has both good and bad points. In his opinion, he feels it is not good to migrate abroad, but Phnom Penh and other provinces may be better because the families can contact migrants easily. In addition, he does not want his children to work abroad because he is afraid that they may face some difficulties. He did not feel that way, however, if it was going abroad to study.

During the interview, there was a discussion about migrant companies and he stated that, at first, he did allow such companies to come in the village. This caused difficulty, however, and later one company returned to village with a permission document from the Ministry. As the chief of the commune, he had to discuss the issue and there was a resultant reconciliation. Presently, he can see that it is better to have the company because people can migrate through the company legally. For example, there were 4-5 migrants arrested at the border with Thailand and they asked the company for assistance. The company successfully brokered a solution and later helped them to migrate again to Thailand. However, many people still use middlemen because their costs are cheaper. Thus, when there are organizations that come to meet villagers for migrant purpose, he takes care to check their documents before they can work in his community.

In addition, there was talk of vocational training for a limited amount of people but in reality, nothing has been implemented to date.

There is a regular monthly meeting at which he proposed that poverty reduction and migrant reduction as big issues. After discussions it was agreed that the community should do something to reduce migration in general, the chief wants to stop migration altogether in his village. In order to do that, there has to be job creation. Since this is difficult, he is only able to provide some advice, while the others realize it is step-by-step process.

3-4-4. Interview with a middleman

We also had the opportunity to interview a migrant who also happened to be a middleman in the village he lives in. Originally a migrant in another province in Cambodia, he found a job in Thailand, also through a middleman. His job consisted of planting and harvesting sugar cane on a plantation. Although considered as a seasonal job, he explained to us that the planting season was from April to September and the harvesting was from November to March, meaning he spent most of the year in Thailand, except for September, October and the Khmer New Year. With the company expanding and always needing seasonal workers, he began to offer to introduce the villagers to the company if they paid him a fee. He justified the fee by saying that he acts as a guarantor of the villagers, organizes the trips and helps his fellow villagers if they have problems during the work. However, he made it clear that the company he works for is not involved and has no idea about him doing this service. In addition, the villagers he introduces are not necessarily hired, but in case they are, they have to pay him the equivalent of a day's work every month for 2 years. At first, the villagers were not very happy with this arrangement but little by little, they noticed an improvement in their livelihood and more and more villagers started to contact him for the job. He says that the villagers trust him more than the private companies because they know him and he has never cheated or wronged anyone (this was also confirmed by interviews with some of the villagers who went through him). However, he says he was once arrested on grounds of human trafficking and was jailed for 20 days. He only had to pay a fine and there was no trial. He thinks it might be the work of some jealous neighbors. With the money he makes from both his job and his role as middleman, he managed to build a house, which is in better condition than any other in his village. He also acquired some farmland that is administered by his wife, who hires villagers to work on it. From his example, we can see that trust is a very strong incentive to go through middleman, first because he charges less than private companies, and also because they actually know him and can go and talk to him in case of problems.

3-4-5. Interview with a local representative for a recruiting company

It was a coincidence that we interviewed a woman whose husband and son migrated to Thailand and she also works as a local representative for a recruiting company in Phnom Penh. She showed us the leaflet of the company. According to her, she has introduced around 50 people in her village to the company. For each person, she gets\$10as commission. In front of her house, there was a big poster about the recruiting company she is working for. Her husband and son also migrated through this company. She strongly supports people to migrate in spite of the possible complications involved in the process. In her opinion, migration is a good strategy for generating income. It is she who urged her husband to migrate to Thailand, though her husband was reluctant to go. Her son, who migrated with her husband, was married and left his own family behind.

4. Conclusion

The results show that our first hypothesis was right in that migration in Sambor Commune provides its villagers with more job opportunities and higher paid jobs. However, there is still a limitation on the varieties of jobs. Most of the migrants work in the low-skilled positions, such as construction workers, garment factory workers, fisherman, grocery sellers and so on. The other side of this situation is that the migrants have a chance to earn more money than before.

The second hypothesis about the relationship between migration and poverty reduction cannot be verified because of the lack of sufficient data. Though we found that the remittances created certain effects on the local economy, our current data is not enough shed light on this issue. However, at the household level, we can come to the conclusion that migration has some positive impact due to the remittances.

In addition, regarding the reasons for migration, we found that a lack of jobs and low incomes are the push factors leading to migration in the local commune. Therefore, those who have a stable source of income tend to stay at the village, and those who do not tend to migrate.

However, from the different interviews we held with government officials and the middlemen, we can see that there two opposing dynamics. On the one side, the government is trying to curtail the number of migrants across the board by financing social programs and trainings, and by raising awareness about the dangers of migration, all the while trying to improve local working conditions and opportunities. On the other side, we can see that people are still very eager to migrate because they get tangible rewards from doing so. The added example of the neighbors who migrated with their success stories continues to attract a lot of people. However, in the case of Sambor Commune, we could see that the efforts of the government to raise awareness about the dangers of illegal migration had paid off because most of the migrants had migrated through official channels.

The phenomenon of migration also had some interesting repercussions on the social sphere of families and we noticed the considerable role and empowerment of women, who often migrated and took a strong role in the family, which reflected some of the results of the research recently done by the government of Cambodia.

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6. Annex

Guidance sheet used for interviewing migrant families:

Date:

Time: Place:

Interview questions (Migrant families)

Personal information/general conversation/ice-breaker for all households/interviewees:

-Family name, how should we call them

-Number of family member, children

-What do they do for a living?

-How many children in the family still go to school?

-How many children go to work?

-What do you think about migration?

-Is there any family members/relative migrate?

Detailed questions:

a. Before migration: (reasons for migration and decision-making process)

-Why do you/your family member want migrate?

(Decision-making process: no money to go, family constraints, do not want to go, bad experience of previous migrant)

-How did you decide to migrate?

-How did you find your job?

-How many people migrate in your family?

-Who migrate in your family?

b. During migration: (types of jobs, difficulties/problems, adaptation process, future prospect)

-Where did you work? -What kind of job did you have? -How long have you been migrated? -How many job have you done during your migration? -Do you have any difficulty such as homesickness, health issues, and adaptation to new environment/culture, difficulties with family members? -Do you often send remittance home? How often? How much? -Do you often go back to visit your family? -Do you want to go back during your migration time? c. After migration: (reasons to come back, re-adaptation process, current life, future prospect) -Why do you come back to the village? -What are the problems when you came back such as adaptation with life in your home village or with family members or neighbors? Do you want to migrate again? -What do you do now? Additional information/questions: Guidance sheet used for interviewing non-migrant families: Date: Time: Place: Interview questions (Non-migrant families) Personal information/general conversation/ice-breaker for all households/interviewees: -Family name, how should we call them -Number of family member, children -What do they do for a living? -How many children in the family still go to school? -How many children go to work? -What do you think about migration? -Is there any family members/relative migrate? **Detailed** questions: -Do you want to migrate? -Why don't you want to migrate? (Decision-making process: no money to go, family constraints, do not want to go, bad experience of previous migrant) -Do you have different job? -Additional information/questions:

Working Group 4

The Current Situation for Selection of Health Treatments -The Case of Sambor Commune-

- 1. Introduction
- 2. Methodology
- 3. Health care providers
- 4. ID Poor Program
- 5. Findings from the questionnaire
- 6. Data analysis of general situation
- 7. Conclusion
- 8. Acknowledgement
- 9. References

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The Current Situation for Selection of Health Treatments -The Case of Sambor Commune-

1. Introduction

1-1. Health situation in Cambodia

Cambodia is situated in Southeast Asia. According to *The World Factbook* by the CIA, the total population in 2012 is about 15million and 80% of total population lives in rural areas. The average life expectancy at birth is 63.04 years, ranking 177th among 193 countries (2012). The infant mortality rate is 54.08 deaths/ 1,000 live births, ranking 38th among 193 countries (2012). Judging from these data, the health situation in Cambodia is less than satisfactory.

Moreover, in regarding to infrastructure, there is a huge gap between urban and rural areas. The rate of population that can access improved drinking water sources in urban areas is 81%, while it is only 56% in rural area (2008). In addition, those who can use improved sanitation facilities in urban areas is 67%, but only 18% in rural areas (2008). These facts show that rural areas have a higher potential for serious health problem than urban areas because the major infectious diseases in Cambodia are waterborne and vector-borne diseases (CIA 2012).

The largest cause of physical impairment in Cambodia stems from disease (36.9%). These impairments are largely caused by poliomyelitis and other debilitating illnesses. The second most common cause of impairment is birth defects (18%), and the remaining common causes are accidents (16%), landmines (14%), and guns (11%) (DHS 2000). Furthermore, in Kampong Thom Province, the site of this research, the most serious cause of impairment is disease (37.1%) (DHS 2000).

It can be said that development of the health care system to treat disease is strongly required in rural areas. However, it was pointed out that the proportion of public health spending captured by the poor is very low and efforts so far to improve the equity of the health sector have not been effective (NPRS 2002). In the next section, we will see the current situation of the health care system in rural areas.

1-2. Health care system in rural areas

The lack of medical facilities is a serious problem in Cambodia. Hospital bed density was 0.1 beds/1,000 people (2004) and physician density was 0.227 physicians/1,000 people (2008) (CIA 2012), leaving a serious situation for medical facilities in rural areas. Indeed, there is only one hospital in Sambor Commune where we conducted fieldwork. In addition, it has only one physician and some midwifes. Since Sambor Commune is formed of fifteen villages with a total population of 13,818 (2010) (DPHI 2011), there are not enough medical facilities to effectively treat disease.

On the other hand, the health care system is not only constructed of medical facilities like hospitals, but there are also many other health care providers in Cambodia, allowing multiple options for health care, especially in rural areas. B. Meessen *et alia*. (2011) said that today, the health systems of many low-

income countries are highly pluralistic and households use a vast range of public and private health care providers, many of which are not controlled by national health authorities. Table 1 shows a variety of health providers and their technical degree¹, ownership and formality.

	Technical degree	Ownership	Formality
Public hospitals	Medium	Public	High
Public first-line services	Basic	Public	High
Non-profit health facility	High	Private non-profit	High
Private clinics	Medium	Private for-profit	Low to medium
Private practitioner (cabinet or at patient's home)	Low to medium	Private for-profit	Low to medium
Pharmacies	Low to basic	Private for-profit	Low to medium
Other drug retailers	Low	Private for-profit	Low
Traditional healer	Low	Private for-profit	Low
Providers abroad	Medium to high	Unknown	Out of control
Other	Low or unknown	Unknown	Vary

Table 1: Criteria to distinguish health care providers

Source: B. Meessen et alia. (2011).

1-3. Health-care-seeking behavior of the villagers

Villagers can choose a variety of health care providers when they become ill. According to B. Meessen *et alia*. (2011), villagers have a certain tendency to choose providers. Table 2 shows villagers' first selections of health care providers. According to the table, drug retailers (29.3%) and private practitioners (21.6%) are popular health care providers. However, these two types of providers are private and don't have a high degree of technical ability, according to Table 1. As a public health care provider, public first-line services rank third (14.4%), demonstrating that almost all villagers select private providers in rural areas.

¹ A 'low' score was given to providers for whom there is no guarantee that the personnel has professional biomedical training. A 'basic' score was given if no medical doctor is working full-time in the facility. The distinction between 'medium' and 'high' scores refers to a mix of dimensions of the inputs (beds, staff and technology), processes and outputs (types of services) of health care delivery.

Table 2: Health	service	utilization	in rural	Cambodia
1 uolo 2. 110ului		utilization	minun	Cumooulu

	POVILL RHS data (2007)			DHS (2005)	CSES (2004)**	
	Mongkol Borei	Sotnikum	Kirivong	Total		
Public hospitals	87 (1.8%)	111 (2.4%)	225 (5.7%)	423 (3.1%)	7.5%	7.3%
Public first-line services	379 (7.7%)	886 (19.3%)	743 (18.8%)	1930 (14.4%)	14.4%	9.1%
Non-profit health facility	49 (1.0%)	174 (3.8%)	19 (0.5%)	242 (1.8%)	0.6%*	4.0%*
Private clinics	245 (5.0%)	200 (4.4%)	262 (6.6%)	707 (5.3%)	6.3%	9.8%
Private practitioner	897 (18.3%)	1049 (22.9%)	963 (24.3%)	2909 (21.6%)	33.2%	32.2%
Pharmacies	974 (19.8%)	360 (7.9%)	297 (7.5%)	1631 (12.1%)	6.6%	13.0%
Other drug retailers	1774 (36.1%)	1183 (25.8%)	978 (24.7%)	3935 (29.3%)	20.1%	18.0%
Traditional healer	58 (1.2%)	62 (1.4%)	61 (1.5%)	181 (1.3%)	1.5%	2.2%
Treatment abroad	5 (0.1%)	0 (0.0%)	79 (2.0%)	84 (0.6%)	n.a.	n.a.
Other	24 (0.5%)	13 (0.3%)	30 (0.8%)	67 (0.5%)	0.9%	3.4%
Did not seek care	419 (8.5%)	539 (11.8%)	298 (7.5%)	1256 (9.3%)	8.9%	n.a.
Total of individuals reporting an illness	4911 (42.7%)	4577 (41.8%)	3955 (36.9%)	13443 (40.5%)	9575 (16.9%)	7320 (12.3%)
Size of the sample	11495	10 950	10716	33 161	56 546	59435

*We considered private hospitals in the DHS and the Cambodian Socio-Economic Survey (CSES) and non-profit health facilities in the POVILL surveys comparable categories. However, overlap might be only partial.

**In the CSES questionnaire, the question on the type of providers for the 4 weeks recall period was 'which provider is usually consulted for care?'. Source: B. Meessen *et alia*. (2011).

1-4. Criteria

We set criteria of health care providers, referring to the former research by Messen (cite). In this former research, there were nine providers: public hospitals, public first-line services, non-profit health facility, private clinics, private practitioner, pharmacies, other drug retailers, traditional healers, and treatment abroad. We selected five providers from these nine because our research site was a local commune that did not have the variety of providers compared to the area of the former research. Our measure of research was mainly based on interviews and the fieldwork time was limited, resulting in a simpler, more easily understood criteria. Hence, the criteria of providers in our research are hospitals, health centers, private clinics, drug retailers, and traditional healers. In our criteria, private clinics included private practitioners and were ranked as the second popular provider in the former research. However, we combined them because it was difficult for the villagers to identify the difference between visiting a doctor at a private clinic and visiting a private practitioner.

1-5. Objective

Our objective was to examine the villagers' behaviors of seeking health care and find out influential factors regarding their attitudes in Sambor Commune. There are three reasons why our research is important. First, we can identify the role, how important the health care system is and reveal, the situation of private health care providers, who are very popular in rural areas. However, the degree of their technical skill is not high and therefore, it is very important to know the reason why villagers use them. Secondly, we can point out what kind of demand there is for an improved health care system. Finally, policy makers could find this information useful to improve rural health care system.

1-6. Research questions

Based on the objectives, we endeavoured to find the answers to three main questions as follows:

- 1. What is current situation of health care system in Sambor Commune?
- 2. What is the current tendency of villagers' selection of treatment in Sambor Commue?
- 3. What are the factors that influence their selection?

Villagers in Sambor Commune can choose a variety of health care providers when they become ill, such as: public sector providers, including public hospitals and health service centers, and private sector providers, including private clinics, drug retailers, private practitioners and traditional healers. Thus, our first related question is: "What are the health care providers chosen by the villagers as their first choice?"

We chose three factors that we assumed would affect the villagers' selection of treatment in Sambor Commue: financial resources, accessibility, and their beliefs. We tried to determine which factors most affected the villagers' choices. Therefore, the second related research was, "What are the reasons people at the research site chose their health care provider?" Following is our research framework (Figure1).



1-7. Hypothesis

We hypothesized that most people in Sambor Commue would chose private providers for their first choice. There are three reasons. First is that the villagers think that it's cheaper than others:, second is the lack of hospitals and health center:, and third is they tend to be more reliable than others.

2. Methodology

2-1. Basic line

We collected data and information through the Internet, research papers and books before traveling to Cambodia to learn about the current situation and general condition of Cambodia. In Cambodia, we conducted a questionnaire and held interviews as the main research methodologies, while, at the same time, we made a careful observations of the medical treatment system. Our research procedure is as follows (figure 2):

Figure 2: Research procedure

INTERVIEW	BASIC INFORMATIONDETAILED TREATMENT METHOD
QUESTIONNAIRE	VILLAGERS' CHOICESINFLUENTIAL FACTORS
DATA ANALYSIS	COMPARISION

2-2. Interviews

In order to collect data from the supply size, we conducted interviews. Visiting the provincial health department, the local hospital, the health center, private provider (private clinic, private practitioner and drug retailer) and a traditional healer's house. In addition, we interviewed the commune chief, village chief, volunteer staff, and NGO staffs (Action for Health and GIZ). Interviews with commune chief and village chief were to obtain knowledge of the present situation of the village. To understand about ID poor, we interviewed two NGOs. Our aim for the questions to the supply size was to understand the facts of the health service sector in Sambor Commune. The framework of the interviews is shown in Figure 3 below.

Figure 3: Framework for interview

- 1. Location
- 2. Function
- 3. Facilities
- 4. Size (bed density, physician or mid-wife density...)
- 5. How many patients come per week or per month
- 6. What kinds of diseases are treated?
- 7. Who usually goes for treatment?

Describe the health service situation in Sambor Commune

2-3. Questionnaires

We utilized a questionnaire as the main method to understand the villagers' selections in their treatments. The questionnaire was aimed at households in villages of our research site. We planned to visit 2-3 villages to collect data through 30 questionnaires.

We mainly divided the questionnaire into 4 sectors based on the service provider of treatment: hospitals, health centers, traditional healers, private providers (private clinic, drug retailers and private practitioners) (Figure 4). In each sector, we included several questions to ask the villagers' attitudes towards disease treatment, and also specific questions aimed at finding influential factors for the selected sources of treatment. Finally, we included several questions aimed at finding generally evaluating overall medical system from the villagers' viewpoints, leaving the last question open with hopes of collecting some suggestions to improve the current medical system. In addition, we decided our target percentage of ID poor for the study. For example, if ID poor card was 30% in an area, our goal was to include 3 ID poor households of a total of 10.

2-3-1. The structure of questionnaire

Section I of the questionnaire was about the basic information of the interviewee, including the age, whether or not they are considered ID poor, occupation, family members, choice for last treatment and reason, and level of satisfaction for last treatment. We wanted to find the different reasons for choosing service providers, such as those affected by economic factors (occupation and number of family members, identification of ID poor), accessibility (reason of last choice) and degree of trust (reason of last choice). This section also aimed to determine the general information of the villagers' opinions. Subsequent sections focused the specific service providers.

Section II to Section VII were almost similar to each other, with slight changes. Each section had five questions including "Have you ever been to xx?"; "How many times within the past one year?"; "How long does it take from your home?"; "What is the degree of reliability?"; and "What is the degree of cost?". The last two questions in each section gave six options for ranking from 0-5. in which 0 equals "not at all" and 5 means "extremely." In each section, questions were designed to find certain possible influential factors. The "how many" questions were aimed at showing the frequency of utilization. "How long" questions helped to determine information of distance between the house and service provider, which represented accessibility. The last two questions in each section were designed to compare the differences among different service providers in frequency of utilization, accessibility, reliability and cost.

The last section raised three questions to determine the general opinion of the medical system and one open question to ask comments or advice regarding the current medical system.

Figure 4: Respondents



2-4. Observation

We also be utilized observation in our research. We carefully observed hospitals, health centers, traditional healers and private providers we visited to get a general impression, especially in regards to the attitude towards work for each provider.

2-5. Data analysis

We created a comparison among the four sectors in order to get a clear view of the different attitude of villagers and also to determine the most influential factors in each sector. The data from interviews formed the basic information for whole study and provided powerful support to the questionnaire results.

2-6. Limitations

The study had limitations. First, due to the limited research period of seven days, we were only able to include 30 households. The limited research period, itself, was also a limitation. Finally, our research site was limited. We were only able to conduct research in 3 villages and all three were in the same commune. From these limitations, it was difficult to analyze from a quantitative approach. However, it was possible to analyze from a qualitative approach because we focused on interviews and when we conducted the questionnaire we were able to follow up with open dialogue. Analysis, though limited, was done to the best of our ability given the limiting circumstances.

2-7. Schedule

Date	Site to visit	Who to ask	Questions	Sample
Mon 27Aug	(AM) move to Kampong Thom Town			
	(PM) In Kampong Thom Town	Chief of Health Depertment		
	(AM) in Kampong Thom Town	Director of Dept. of Health	Interview	
Tue 28 Aug	(PM) Sambou Village	Discussion with Commune Chief&Village Chief	Interview	Interview households (Optional)
Wen 29 Aug	(AM)/(PM) Sambou Village	Village Chief/Private Clinic/Tranditional Healer/Drug retailer/10 households	Questionnaires and interview	10 households
Thu 30 Aug	(AM) Kamphong Chheour Teal Village	Volunteer Staff/Private Clinic(2 people)/Traditional Healer/Drug Retailer	Questionnaires and interview	Interview households (Optional)
Fri 31 Aug	(PM) Kampong Chheour Teal Village	Chief of Health Center/Action for Health(NGO)/10 households	Questionnaires and interview	10 households
Sat 1 Sep	DAYOFF			
Sun 2 Sep	DAYOFF			
Mon 3 Sep	(AM) ChraMas Village	Traditional Healer/Private Clinic/Drug Retailer(2 people)/Private Practitioner	linterview	Interview households (Optional)
Tue 4 Sep	(PM)ChraMas Village	10 households	Questionnaires and interview	10 households
Wed 5 Sep	(AM) Kampong Thom Town (PM) Move back to PP	(AM) GIZ(NGO)		

3. Healthcare providers

3-1. Health center

The health center was located in Kampong Cheour Teal Village. The average distance from the center of the villages to the health center was about 7.2 km. For the other two villages at the research site, the distance from Sambor to the health center was 2.5 km and 12km from Koun Kaek. In the health center, there were 3 midwives, 12 nurses and 1 cleaner that were providing health services to the villagers. Care included maternal health care, antenatal care, provision of a birth space and immunization. There was no doctor. The rate of health center staff per population of the commune was 1: 864.

The health center was opened from Monday to Friday, 8 to 11 am. According to the chief of the health center, all staff was available during office hours. In addition, there were three members of staffs on standby during non-business hours. However, when we visited on August 31st 2012, there was no staff there. The chief explained that it was a Khmer holiday and people and the staff needed to stay home to perform some rituals. Most of staff lived around the health center, so in emergency, they could get there fast.

About the facilities, there were 22 patient beds, including 20 beds for inpatients who needed to stay at the health center for treatment, 1 bed for giving birth and 1 bed for antenatal care.

According to health center report, this table shows the number of patients per month (average for the first half-year of 2012):

Kinds of health care	Number
Outpatient Consultation	600 - 800
Antenatal Care	30 - 40
Birth Spacing	300
Delivery	6 - 10
Inpatient	100
(for those who get malaria, serious diarrhea and	
tuberculosis)	

In addition, the health center provided abortion care for a fee. This fee is supported by Global International Fund. Moreover, in order to improve health system in this area, the health center also provided outreach service to 15 villages during 15 days per month (1 village/1day/1month). In this program two health workers provided vaccines for children and necessary medications for the villagers.

The fee was set up by the community, including the commune chief, the three village chiefs from the villages near the health center and one respected elder from Kampong Cheour Teal with support of health center personnel. The list of fees was submitted to the Provincial Health Department for approval. For example, the cost of treatment at the health center was: general disease consultation, 0.25\$; check up for pregnant, 0.5\$; and birth control, 0.5\$. ID poor were exempt from payment at the health center.

However, the health center was still in poor condition because the staff did not stay even though they may have been needed and patients had to wait for treatment for long periods of time. Nurses and midwives could open a private clinic if they were allowed by the provincial office. This detracted from the services at the health center, leaving insufficient health services in the area. The chief of health center reported that four nurses own their own private clinics and some of them do not go to the office on time. They need to do other work to support their livelihood because they receive such low salaries from the health center.

Despite this, the chief of the health center said that, the quality of the health service system has improved a lot and more people are utilizing it. However, the staff was always working overtime at low salaries. They were hoping for an increase in income. They also need doctors to improve the health service

3-2. Private providers

3-2-1. Private clinic

There were 18 private clinics in the three research villages, mostly located in Kampong Cheour Teal which was more developed than the other two. Under the condition of a lack of public health service, private clinics are important providers. The provincial office allows people to open private clinics even though most have no medicine licenses. Of the three private clinics we visited, only one person had a medicine license and another person was a member of the health center.

Private clinics give medical treatment and medicine for mid diseases such as, stomachache, headache and high blood pressure and are, sometimes available for injections. But in case of serious diseases, they recommend patients to go to the health center or a public hospital.

A private clinic can accept patients on a 24-hour basic and provide more services and medicine than the health center. Many patients require IV for various diseases, rehydrating them and helping them to feel better. They can receive IV fluid injections at private clinics, but not at the health center. Furthermore, when patients go to private clinics, they reported that they do not have to wait a long time and receive friendly service from the nurses. Some even receive free treatment at the health center with their ID poor status. House visits are one more service provided by private clinics. Some patients cannot physically go to the clinic, but if they telephone, nurses will come directly to the patient's' house. Thus, many villagers prefer private clinics.

The fee for treatment varied for each private clinic and it depended on the patient and what kind of treatment. According to a private clinic in Kampong Cheour Teal, the charges were 0.25\$ for simple diseases and 0.75-1.25\$ for injections.

The number of patients was also different among private clinics. According to our interview results, villagers trusted private clinics where the owner had a medical license over those who did not. Comparing two private clinics in Kampong Cheour Teal, a private clinic with no license provided treatment for about 50 patients per month, while the other with the license treated an average of 300 patients per month. This private clinic was not free for ID poor people.

3-2-2. Drug retailers

There were 13 drug retailers in the area of the three research villages. Drug retailers have fulfilled an essential role in health service system. Drug retailers provide medicines for simple and mid-level diseases such as flu, headache and contraception. Drug retailers' business hours are very flexible, with normal hours from 6am to 6pm but consumers can often have 24-hour access. Some drug retailers sell other goods along with medicines, such as daily foods, hygiene products and produce. Not all shopkeepers have a license to distribute medicine. Some of them have been trained about basic medical knowledge by the health center staff; some of them get expertise from other people to learn about what medicine is used for what disease.

3-3. Traditional healer

There were eight traditional healers in the area of the three research villages. They provided a quite different view of treatment approach. Together with other health providers, traditional healers make up a part in the picture of health service system in Sambor Commune.

On 29th Aug, we held an interview with a traditional healer in Sambor Village. The traditional healer's name was Sokchea and she was 42 years old. In daily life, her husband helps her with their farming and she focuses on treating patients. She has been a traditional healer since 2008. She often treats liver cancer, stomach disease, digestive diseases, and typhoid and sometimes even helps women bring their husbands back home if they've been unfaithful. Most patients in the final stage of cancer have lost hope and come to see her. There are about 20 patients every month. She sells traditional medicine and also provides physical treatments. Most of them have been taking traditional medicine and stay at their homes. Some people with serious diseases like lung cancer or liver cancer stay at her home for physical treatment. However, at the time of the interview, her new house was under construction, so patients were just receiving medicines from her. The patients are required to stop drinking, smoking, eating beef and some other specific kinds of meat. During this period of abstinence, only 'clean' foods are acceptable.

In some cases, she conducts physical treatments. She prays to the sacred spirit and the spirit comes into her body. After that, she uses a special cream which is made from coconut oil and honey that she makes and puts it on the stomach of the patients. She does not set standard fee for this type of treatment, with some patients paying \$5 per time and others paying \$8 per time. Those who are poor are not required to pay any fee; they just prepare bananas and incense sticks for her spirit.

She also provides medicines for patients. It is made from the tree she collects in the forest. One pack of this medicine (0.5 kg) costs \$3 and a patient can drink it for 5 days. Typically, patients buy 15 packs for treatment and then they become well. Most of patients come from other villages and cities, including Phnom Penh. She does not do any promotion for her services, but rather, patients find her by word-of-mouth from those who have received her treatments. She reported that many patients become healthy after drinking her medicine and taking her treatments, and even though she is illiterate, she reported that she has spirit power

We did not conduct interviews with any of her patients to ask about the efficacy of her treatment approaches. We also found out that traditional healers are not as popular as other health care providers; however, they are still used by villagers whose serious disease is in final stage.

4. ID Poor Program

4-1. Donor and implement agency

The Identification of Poor Households Program was established in 2006 and implemented by the Ministry of Planning (MOP) in collaboration with the Department of Local Administration (DOLA) of the Ministry of Interior. This program is funded by the Federal Republic of Germany, the European Union, AusAID, UNICEF and the Royal Government of Cambodia. The ID Poor Program mainly receives technical cooperation from the German government through Deutsche Gesellschaft für Internationale Zusammenarbeit, (GTZ). The daily management is conducted by Action for Health (AFH), which is a local NGO in Cambodia.

4-2. Objective

The purpose of the ID poor program is to provide poor households with free medical service in the hospital and health center. It enables them to receive better treatment without charge of services and medicine and also provides limited money for transportation. The program is implemented to lift them out of poverty and to protect them from the impact of disease, which may deepen their poverty. In addition, the data of ID poor can also be used for calculating comparative poverty levels of villages, communes, districts and provinces.

4-3. Targeted areas

Target	Banteay Meanchey, Oddor Meanchey, Siem Reap, Kampong Thom,				
provinces 2007-	Kampong Cham, Kratie, Steung Treng, Svay Rieng, Prey Veng, Pursat, and				
2009:	Kompot provinces.				
Torgot	Banteay Meanchey, Oddor Meanchey, Siem Reap, Preah Vihear, Kratie,				
Target provinces 2010:	Pailin, Battambang, Pursat, Kampong Chhnang, Takeo, Kandal provinces				
provinces 2010:	(whole provinces, rural areas).				
	Ratanakiri, Mondulkiri, Kampong Speu, Prey Veng, Svay Rieng, Kompot,				
	Kep, Preah Sihanouk, Koh Kong provinces (whole provinces, rural areas).				
Target	NB: Kampong Thom and Kampong Cham provinces, and some areas of				
provinces 2011: Phnom Penh, were also planned for 2011, but implementation					
	cancelled due to funding bottlenecks. Implementation in these locations				
	will be rescheduled as circumstances permit.				

Source: Ministry of Planning (MOP). http://www.mop.gov.kh/Projects/IDPoor

4-4. Procedure

According to interviews with several NGOs related to the ID poor program and official data, the process for identification of poor households consists of four steps:

Step 1: Establish and train the Planning and Budgeting Committee Representative Group (PBCRG) at the commune level and Village Representative Groups (VRGs).

Step 2: The VRG compiles the first draft list of poor households in the village based on household

interviews and questionnaires. The VRG revises the first draft list considering the villager's requests and submits the list to the Commune Council.

Step 3: The Commune Council reviews and approves the final list of poor households, sends data to the Provincial Department of Planning; and distributes Equity Cards to poor households.

Step 4: The Provincial Department of Planning enters all data and household photos into the Provincial Database of Poor Households

5. Findings from questionnaire

5-1. Questionnaire data analysis for each village

Data was analyzed by first comparing among the three villages---Sambor Village (V1), Kampong Cheour Teal Village (V2) and Chra Mas Village (V3), and then showing the general situation by averaging the data of three villages.



5-2. Frequency of utilizing each provider within past one year

The chart above shows the data for the question of frequency to the various providers for each section. Contrasting the data of each village, it is not difficult to find the same tendency in each village among the providers.

Checking the frequency for use of the health center, the number was not expected when we consider the distance factor. In one commune, the only health center is located in Kampong Cheour Teal Village (V2), but the frequency of visiting from Sambor village was higher. It might be affected by number of ID poor. The proportion of ID poor in Sambor Village is 47%, while the other two villages is considerably less (Kampong Cheour Teal Village=11.3%, Chra Mas village=22%). For free treatment and medicine, Sambor villagers may have ignored the longer distance.

For the private clinic section, Kampong Cheour Teal Village was recorded as the highest

frequency and furthermore, much higher than the other two villages. It could be explained by the amount of providers. In Kampong Cheour Teal Village, there are 13 private clinics, while the Sambor Village only has 5 and there are no private clinics in Chra Mas Village. Villagers of Chra Mas have to find private clinics in other villages. That may be related to the high frequency of using drug retailers of Chra Mas Village.



5-3. Reliability of each provider

The score of each village in regards to reliability was respectively, hospital (V1=4.25), private clinic (V2=3.4) and hospital (V3=4.3). Kampong Cheour Teal Village (V2) marked a lower score on hospital but instead, gave a higher score to private clinics. It suggests that the competition among the15 private clinics may lead to better service and higher ability. The interviews with personnel at the private clinics also gave this assumption. The only private clinic with a license was located in Kampong Cheour Teal Village and seemed much more professional.

In the health center section, Kampong Cheour Teal Village gave the lowest score, which is lower than private clinics and hospital. Villagers here had the most convenient access considering the distance, and therefore the evaluation by villagers here is thought to be convicting. The comments regarding the health center in the open question of questionnaire showed that the people considered a need for improved attitude in the service and they want longer business hours like the private clinics. This suggests that if the staff were the same, they would choose the provider that is offering better service. Better service was also related to reliability.

5-4. Cost of each provider



There was a definitive conclusion across the villages that came from the results of the question about cost of treatment. The most expensive of the providers were the private clinics. However, the distinction among villages is hard to understand. The Sambor villagers considered private clinics to be cheaper when compared to other villagers, while almost half of the villagers were registered as ID poor. ID poor do not pay for treatment fees except at the health center and hospital and are deemed as having a lack of financial ability to pay. Therefore, there was no reasonable explanation for the link between low economic condition and the evaluation that it was 'not so expensive' in Sambor village.



6-1. Frequency of utilizing each provider within past one year

6. Data analysis of general situation

As for the ranking by the frequency of use of each provider, the conspicuous result was that the

traditional healer was least utilized, followed by the hospital, health center, private clinic. The drug retailer was most popular. In general, the public options, which includes hospital and health centers, were not always utilized by the villagers, while the drug retailers and private clinics were very popular.

According to the information received from interviews, the high frequency of consulting drug retailers was mainly caused by the special role they play in disease treatment and the convenience of use. People do not always trust the effect of a medicine and at times when they are suggested new medicine, they prefer to buy them in smaller amounts, such as the amount for only one day or even for one time, to try the effects. The convenience of access was also a reason that influenced people to buy small amounts of medicine at a time. Other reasons noted is that there was at least one drug retailer within the village and it usually only took less than 10 minutes on foot.



6-2. Reliability of each provider

From the view of the villagers, according to their treatments within the past one year, the most reliable way of treatment was go to the hospital. The health center and private clinics were ranked second. The score of drug retailers was under the median which may suggest that villagers do not completely trust them. The traditional healer got the lowest score at 1.1, it means most of villagers do not believe the efficacy of traditional healers.

The results of the questionnaire were in accordance with our assumptions. Reliability was decided by the scale or capacity of each provider. Certainly, the hospital had the most equipped facilities, followed by the health center and private clinics.



6-3. Cost of each provider

As for the cost of each service provider in Cambodia, villagers thought the private clinic was the most expensive, followed by the hospital which was almost the same price level. Drug retailers were thought as normal. The traditional healer, which does not charge a service fee but is instead paid according to gratitude, was evaluated as not so expensive, but still more expensive than the health center. This result might be influenced by the combination of data with the ID poor that are free from payment.

Generally, the results of cost were in line with our assumption. We supposed that the hospital might be the most expensive provider for the various kinds of possible examinations and charged a higher rate for expertise. In reality, the private clinic was ranked as the first. Possible reasons could be the influence of the ID poor and frequency of their visit.

7. Conclusion

According to the results of our questionnaire and interviews, our hypothesis that most of people in Sambor Commune choose private providers to treat disease seems correct. Actually, more than 75% of villagers choose private providers to treat disease in the three villages where we conducted the research.

We assumed three reasons to support our hypothesis. First, private providers are cheaper than other providers. Second there is a lack of hospitals and health centers in the commune. Finally, private providers are more reliable than other providers. We try to verify these three assumptions based on the findings of our fieldwork.

The reason was proved to be wrong because we found that private providers are not always cheaper than others. According to the result of our questionnaire that collected the villagers' opinion on cost of treatment, the health center is the cheapest provider. There are two possible factors that influenced this result. One is that villagers who have ID poor status can get free treatment from the public facilities. Therefore, private providers seem relatively expensive. Although the hospital is a public provider, villager

evaluated it as the second most expensive provider because it included the cost of transportation and accommodation fees in the hospital. The other is that villagers may have considered cost effectiveness of private providers, especially the drug retailer in this context. If villagers don't get better after taking medicine received from the drug retailer, they might think the cost for a drug is expensive. Almost all drug retailers lack medical knowledge and they sometimes sell the wrong medicine to villagers. Actually, some villagers complained of useless medicines that they purchased from the drug retailer.

The second reason we raised to support our hypothesis may also be incorrect. Although, Kampong Cheour Teal Village is the only village that has a health center in Sambor Commune, private providers were still more frequently used compared to the health center. A possible reason why villagers scarcely use the health center, even though there is easy access, could be the inconvenient service. The health's hours of operation are center is very limited; only 3hours, from 8AM to 11AM. Although four personnel are supposed to be on stand by 24 hours a day, many villagers complained that it was usually closed and they could not get treatment when they visited there. In addition, they also complained that they had to wait for a long time to get treatment and some of the staffs were unkind to patients. One problem is that the health center staff is required to work hard because the number of outpatients typically exceeds 600 per month, though there are only 16 on staff and their salaries are not so high. Their incentive to work is not very high, which leads some of the decrease in quality of services in the health center.

Our final reason was proven wrong because the data showed that public providers have higher reliability than private providers. We verified the reasons focusing on the characteristics of the private clinics and the drug retailers separately. The private clinics had relatively high reliability as much as the health center. Although only a few personnel in the private clinics had license to open a clinic issued by the government, almost all had work experience in a medical institution. The staff of private clinics has medical knowledge and some skills of treatment. In some cases, the staff of the health center and the staff of the private clinic were the same. On the other hand, drug retailers typically do not have licenses or medical knowledge. Therefore, they did not proven to have a high reliability in the study.

Considering the circumstances mentioned above, we can point to two reasons why most of the villagers (75%) choose private providers when they become ill. First, there are problems of accessibility with public providers. In Sambor Commune, there was no hospital and only one health center whose open hour is very limited. On the other hand, there were many private providers with very flexible hours, selling medicine or giving treatment when villagers demanded them. Second, the villagers could receive comfortable treatment from private clinics compared with the health center. In a private clinic, villagers do not have to wait for a long time to receive treatment and could easily receive intravenous injection that many villagers want.

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