

Overseas Fieldwork Report 2007:

Kampong Chhnang Province, Cambodia



**Graduate School of International Development
Nagoya University**

Overseas Fieldwork Report 2007

Kampong Chhnang Province, Cambodia

March 2008

**Graduate School of International Development
Nagoya University
Nagoya, Japan**

Overseas Fieldwork Report 2007
Kampong Chhnang Province, Cambodia

Copyright @ 2008



Graduate School of International Development, Nagoya University
Furo-cho, Chikusa-ku, Nagoya, Japan 464-8601
<http://www.gsid.nagoya-u.ac.jp/>

Introduction

The sixteenth Overseas Fieldwork (OFW 2007) of the Graduate School of International Development (GSID), Nagoya University, was carried out in Kampong Chhnang Province, Cambodia from 5 to 18 August 2007. This is the third OFW undertaken in Cambodia, and GSID conducted it in close cooperation with the Royal University of Phnom Penh (RUPP). GSID and RUPP made an academic exchange agreement in January 1998, and since then, a number of faculty members and students from both institutions have enjoyed various opportunities to interact and collaborate through both their research and studies. The OFW 2007, as well as the past two OFWs, have been considered as very important occasions for GSID to strengthen its relationship with RUPP.

Considering the relevance of topics to the Cambodian context and the expertise of GSID professors, we divided 24 students into four working groups, i.e., (WG1) rural infrastructure, (WG2) trade and commerce, (WG3) education, and (WG4) culture, for the purpose of studying rural and regional developments of Kampong Chhnang in an integrated way. They conducted their research in villages of Srae Thmei Commune, the Rolea B'ier District of Kampong Chhnang Province, and shared their research findings with villagers and local authorities in the Commune at the end of their research.

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

Acknowledgement

The committee of OFW 2007 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 Kampong Chhnang Province. We are grateful to the local authorities of the Kampong Chhnang Province and Rolea B'ier District, and especially those of Srae Thmei Commune, for their generous assistance and cordial hospitality. We also would like to express our sincere gratitude to all of those who kindly provided precious information in the interviews. We could not have accomplished the OFW successfully without their kind support.

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 the faculty members of RUPP: Prof.

Neth Barom, Vice-Rector of RUPP, Prof. Nith Bunlay, Prof. Hour Thany, Prof. Ly Vanna and Prof. Norng Lina. Participants of the OFW 2007 received tremendous support from eight students and four advisors of RUPP during the field research. We are grateful for their dedicated cooperation, not only as advisors and translators, 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 2007: Dr. Yukio Yonekura, Representative, Japan Volunteer Centre, Cambodia, Prof. Kuong Teilee from CALE at Nagoya University, Mr. Ngov Peng Huy, Mr. Samreth Mammoun and Mr. Peng Huy from GSID at Nagoya University. We also would like to thank Mr. Keiji Ito, Ms. Mayumi Ito and Ms. Do My Hein for their work as teaching assistants for the OFW, and Mr. Matthew Pelowski and Ms. Joanne Dawson for the English correction of this volume.

Committee on OFW 2007

Yasushi Hirosato, Professor and Co-Director

Yuto Kitamura, Associate Professor and Co-Director

Fujio Kawashima, Associate Professor

Ayako Uchida, Associate Professor

Office of OFW

Takako Suzuki, Assistant Professor

Table of Contents

| | |
|--|--------------|
| Introduction..... | i |
| Acknowledgement..... | i |
| List of Participants..... | 1 |
| Program of OFW 2007..... | 3 |
| Preparatory Seminar at GSID | 3 |
| Presentation of Research Findings at Each Research Site | 3 |
| Leaving Report of Research at RUPP | 3 |
| Presentation of Research Findings at GSID | 3 |
| Overall Schedule of Fieldwork in Cambodia | 4 |
| Background Information on Kampong Chhnang Province | 7 |
| <i>Working Group 1</i> | |
| RURAL ROAD Maintenance in Cambodia Focusing on cooperation among local administrations and villagers : A case of Srae Thmei Commune, Rolea B'ier District, Kampong Chhnang Province, Cambodia | 11 |
| 1. Introduction..... | 12 |
| 2. General Information | 14 |
| 3. Data Analysis of related questions..... | 20 |
| 4. Conclusion | 29 |
| 5. Recommendation | 30 |
| 6. Acknowledgement..... | 30 |
| 7. Reference | 30 |
| <i>Working Group 2</i> | |
| Generating Income through Commercialization of Local Products: Rice, Palm Sugar, and Pottery Products : Tropaing Sbov village, Srae Thmei commune, Rolea B'ier district, Kampong Chhnang Province, Cambodia | 33 |
| 1. Introduction..... | 34 |
| 2. Rice..... | 36 |
| 3. Sugar Palm | 40 |
| 4. Pottery..... | 45 |
| 5. Similarities and Differences among Producers of the Three Products..... | 50 |
| 6. Conclusions..... | 51 |
| 7. Recommendations | 52 |

Working Group 3

Perceptions of various actors toward schooling in Lower-Secondary school Level :

| | |
|--|-----------|
| A case of Rolea B'ier in Kampong Chhnang Province, Cambodia | 55 |
| 1. Introduction..... | 56 |
| 2. Conceptual Framework | 56 |
| 3. Target Overview | 58 |
| 4. Methodology | 60 |
| 5. Discussion..... | 61 |
| 6. Conclusion – our new Conceptual Framework | 70 |
| 7. Implications | 72 |

Working Group 4

Culture : Pottery Making Culture in Andong Russey Village, Srae Thmei Commune,

| | |
|---|-----------|
| Rolea B'ier District | 77 |
| 1. Introduction..... | 78 |
| 2. Significant Information from Each Target Group | 80 |
| 3. Main Findings | 83 |
| 4. Policies Regarding Pottery Making | 91 |
| 5. Issues at Present | 92 |
| 6. Conclusion | 93 |

| | |
|--|----|
| List of Individual and Company Donors to the Overseas Fieldwork Fund | 97 |
|--|----|

| | |
|-------------------------------|----|
| 海外実地研修基金に拠出いただいた個人・企業一覧 | 98 |
|-------------------------------|----|

List of Participants

Faculty Members (9)

| Working Groups | Advisors from GSID, Nagoya University | Advisors from Royal University of Phnom Penh (RUPP) |
|------------------------|--|--|
| WG1 | Yasushi Hirokato | Hour Thany |
| WG2 | Fujio Kawashima | Ly Vanna |
| WG3 | Yuto Kitamura | Norng Lina |
| WG4 | Ayako Uchida | Nith Bunlay |
| Logistics/Coordination | Takako Suzuki | Nith Bunlay |

RUPP Student interpreters (8)

| WG | Name | Sex | WG | Name | Sex |
|-----|--------------|-----|-----|-----------------|-----|
| WG1 | Orn Makara | F | WG3 | Mak Srey Moch | F |
| | Mao Sarim | M | | Tep Livina | M |
| WG2 | Veng Thida | F | WG4 | You Dalin | F |
| | Rent Thearom | M | | Leang Reathmana | M |

GSID Student advisors (4)

| WG | Name | Sex | WG | Name | Sex |
|-----|-----------------|-----|-----|---------------------|-----|
| WG1 | Do My Hien | F | WG3 | Syunsuke Kanbayashi | M |
| WG2 | Samreth Mammoun | M | WG4 | Ngov Peng Huy | M |

GSID Students (24)

| WG | No. | Name | Department # | Nationality | Sex |
|---------------------------------|-----|---|--------------|-------------|-----|
| WG 1 Rural Infrastructure | 1 | Tsujimoto Hanae ** | DICOS | Japan | F |
| | 2 | Takahiro Utsumi | DICOS | Japan | M |
| | 3 | Yuko Jikumaru | DID | Japan | F |
| | 4 | Liu Jing * | DID | China | M |
| | 5 | Nam Souteang | DID | Cambodia | F |
| WG 2 Trade & Commerce | 1 | Felippe Antonio Cademartori de Almeida Araujo | DID | Brazil | M |
| | 2 | Daisuke Kobayashi | DID | Japan | M |
| | 3 | Koji Ishikawa ** | DID | Japan | M |
| | 4 | Xiaoming Pan * | DICOS | China | F |
| | 5 | Heng Molyaneth | DID | Cambodia | F |
| | 6 | Ngoun Sethykun | DID | Cambodia | M |
| WG 3 Education | 1 | Takayo Ogisu * | DID | Japan | F |
| | 2 | Kensuke Saito | DID | Japan | M |
| | 3 | Keiichi Hashimoto | DID | Japan | M |
| | 4 | Nao Haruyama | DID | Japan | F |
| | 5 | Hitomi Isobe | DID | Japan | F |
| | 6 | Ryosuke Kawabe | DID | Japan | M |
| | 7 | Im Keun ** | DID | Cambodia | M |
| | 8 | Chea Pharath | DID | Cambodia | F |
| WG 4 Culture | 1 | Sumire Kanda * | DICOM | Japan | F |
| | 2 | Wakako Ishikura | DICOM | Japan | F |
| | 3 | Misato Asai | DICOS | Japan | F |
| | 4 | Yoko Aoki | DICOS | Japan | F |
| | 5 | Net Seila ** | DID | Cambodia | M |

** Group leader, * Sub-leader, # DID: Department of International Development, DICOS: Department of International Cooperation Studies, DICOM: Department of International Communication

Program of OFW 2007

Preparatory Seminar at GSID

| Date | Hours | Title of the Lecture | Lecturer |
|-------------|--------------|--|--|
| May 16 | 15:00-16:30 | “Introduction to the Year 2007 OFW” “Assistance by RUPP” | Yasushi Hirosato, GSID Nith Bunlay, Visiting Researcher GSID (RUPP) |
| May 23 | 15:00-16:30 | “Introduction to Cambodia and Kampong Chhnang Province” | Nith Bunlay, Visiting Researcher GSID (RUPP) |
| May 30 | 15:00-16:30 | “Macro-Economic Conditions of Cambodia” | Ngov Peng Huy, GSID student of the doctoral program |
| Jun. 6 | 15:00-16:30 | Presentation of Research Proposals | WGs (10 min presentation by each WG) |
| Jun. 13 | 15:00-16:30 | “Trading in Cambodia: Experiences from Agricultural Trade ” | Samreth Mammoun, GSID student of the doctoral program |
| Jun. 20 | 15:00-16:30 | “Assistance to improve farmers' livelihood: One case in Cambodia” | Yukiko Yonekura, Representative, Japan Volunteer Centre, Cambodia |
| Jun. 27 | 15:00-16:30 | “Legal and Political Systems focusing on Decentralisation in Cambodia” | Kuong Teilee, CALE, Nagoya University |
| Jul. 4 | 15:00-16:30 | “Education in Cambodia” | Yuto Kitamura, GSID |
| Jul. 11 | 15:00-17:30 | “Culture, Language and Research Ethics” | Yasushi Hirosato, GSID Nith Bunlay, Visiting Researcher GSID (RUPP) |
| Jul. 18 | 15:00-17:45 | Video “The Killing Fields” | |
| Jul. 25 | 15:00-17:00 | Presentation of Research Plans | WGs (15 min presentation by each WG) |

Presentation of Research Findings at Each Research Site

The presentation of research findings was held at each site by each working group on August 14, 2007.

Leaving Report of Research at RUPP

The leaving report was made by each working group to report the achievement of the research and express appreciation at RUPP on August 16, 2007.

Presentation of Research Findings at GSID

The presentation of research findings was held at GSID by each working group to disseminate and to collect feedback from colleagues on October 10, 2007.

Overall Schedule of Fieldwork in Cambodia

| Date | Activities |
|------------------------|--|
| Aug. 5 (Sun.) | 8:00 Meeting at Chubu International Airport 10:30 Departure from Nagoya (TG645) 14:30 Arrival at Bangkok (transit) 18:10 Departure from Bangkok (TG698) 19:25 Arrival at Phnom Penh <i>(Accommodations: Princess Hotel, Phnom Penh)</i> |
| Aug. 6 (Mon.) | AM: Move to Kampong Chhnang Province by bus (about 3 hours) PM: Courtesy visit to and briefing at the Kampong Chhnang provincial government <i>(Accommodations: Sovannphum Hotel)</i> |
| Aug. 7 (Tue.) | AM: Meeting with commune and village leaders at Srae Thmei commune office PM: Field survey in each village |
| Aug. 8-9 (Wed.-Thur.) | Field survey by each village |
| Aug. 10 (Fri.) | AM: visiting at relevant provincial departments (public works, rural development, agriculture, commerce, education, and culture) PM: visiting at relevant district offices (public works, rural development, agriculture, commerce, education, and culture) |
| Aug. 11-12 (Sat.-Sun.) | Field survey by each village |
| Aug. 13 (Mon.) | Preparation for the presentation of findings by each WG |
| Aug. 14 (Tue.) | AM: Presentation of findings by each WG in each village PM: Farewell party organised by GSID |
| Aug. 15 (Wed.) | AM: Visiting Oudong Mountain PM: Move to Phnom Penh by bus <i>(Accommodations: Princess Hotel, Phnom Penh)</i> |
| Aug. 16 (Thur.) | AM: Visit to related Ministries in Phnom Penh (public works, rural development, agriculture, commerce, education, and culture) PM: Reporting at RUPP |
| Sep. 17 (Fri.) | AM: free time 20:25 Departure from Phnom Penh (TG699) 21:30 Arrival at Bangkok (transit) 00:10 Departure from Bangkok (TG644) |
| Sep. 18 (Sat.) | 7:50 Arrival at Nagoya |

Photographs

**Courtesy visit to Kampong Chhnang
Provincial Office**



Meeting at the Commune Office



One of the preparatory seminars



WG1



WG2



WG3



WG4



Presentation of findings at one of the research sites



Background Information on Kampong Chhnang Province

A. Geography

Kampong Chhnang is located in the center of Cambodia and is one of the five provinces around the Tonle Sap Lake. The province borders Kampong Cham Province to the east, Kampong Speu Province and Kandal Province to the south, Pursat Province to the west, and Kampong Thom Province to the north (see Figure 1). It covers around 5,521 square kilometers, which is equivalent to 552,100 ha, of which 136,000 ha is agricultural land (Cambodia Inter-Censal Population Survey 2004).

Figure 1: Map of Cambodia



Source: <http://www.infoplease.com/atlas/country/cambodia.html>

Kampong Chhnang can be characterized by the Tonle Sap River which runs through the whole province from south to north, and the Tonle Sap Lake which starts from the northern end of the province. Such water sources make the province well-known for its abundance of fresh water fish. In addition, the province has a mountain range in the west, which provides forestry by-products to the inhabitants.

Kampong Chhnang can be reached by boat, road, and railway. It lies about 93 kilometers from Phnom Penh, if traveling via National Road 5 or about 73 kilometers traveling by train. Alternatively, one can travel by boat along the Tonle Sap, but at 110 kilometers this way is longer than road and railway. In addition, planning is underway for the renovation

C. Demography

Kampong Chhnang Province has an estimated population of 532,000, with 52.6% female. The population density is 99 persons per square kilometers compared to an average population density of 75 persons per square kilometers for Cambodia. Children aged under 5 years old total around 12 % of the total population, and the economically productive age group (15 to 64 years old) accounts for 54%, while the number of people who are eligible to vote consists of around 52%. The estimated number of households in 2004 was 108,571, with an average household size of 4.9 persons. Among those 75.6% were male-headed. According to the 2004 survey, adult literacy in the province was 66.4%, with 56.2% literacy rate for women and 79.5% for men (Cambodia Inter-Censal Population Survey 2004).

D. Livelihood

Although located in the center of Cambodia, Kampong Chhnang is still a rural province. A large majority of the population are engaged in agriculture and fisheries, while others are engaged in forestry. Main economic activities include farming rice and vegetables, fishing, growing cash crops (cashew nuts, lotus seeds...etc), pottery-making, making bamboo products, making palm sugar, and trading. Specifically, the province is well-known for the best pottery-making in the entire country.

References:

1. Cambodia Ministry of Tourism Website: <http://www.mot.gov.kh>
2. National Institute of Statistics (NIS) 2004. Cambodia Inter-Censal Population Survey 2004. Ministry of Planning
3. One-World Nation Online Website: <http://www.nationsonline.org>
4. <http://cambodia.mellenthin.de/archives/category/.../kampong-chhnang>
5. en.wikipedia.org/wiki/Kampong_Chhnang

RURAL ROAD Maintenance in Cambodia Focusing on cooperation among local administrations and villagers

**-A case of Srae Thmei Commune, Rolea B'ier District,
Kampong Chhnang Province, Cambodia-**

1. Introduction
2. General Information
3. Data Analysis of related questions
4. Conclusion
5. Recommendation
6. Acknowledgment
7. Reference

Group Advisors

Prof. Yasushi Hirosato (GSID)

Prof. Hour Thany (RUPP)

Assistant

Do My Hien (GSID)

Written by:

Hanae Tsujimoto **
Nam Souteang

Liu Jing *
Takahiro Utsumi

Yuko Jikumaru

**Group Leader *Sub-leader

1. Introduction

1.1 Background

Roads are a key determinant of poverty. Without physical access, rural communities face much greater obstacles in obtaining health, education and other social services. In addition, their ability to take advantage of surplus crop production and employment opportunities is severely constrained. Roads are a key element in the provision of physical access.

In Cambodia as well, roads are closely related to the daily life of people. Roads in Cambodia can be divided into 3 types: national roads, provincial roads and tertiary roads. Within these 3 types of roads, particularly village to village roads and roads inside villages, under territorial roads, have the most intimate relations with rural people and their daily life. In the village where we conducted research, for example, villagers use these roads everyday for carrying straw and bamboo by ox-carts and for going to school and traveling to other villages. However, these roads are unpaved and in bad condition in rainy season. Bad road condition prevents villagers from traveling, and it has a negative impact on the daily life of the villagers. Better maintenance of these roads is therefore very crucial for villagers.

In order to maintain the roads, villager's effort is necessary. However, for better maintenance, it is assumed that support from the commune council (here after CC), as well as villager's effort itself, is also important. CC was established in 2001 through the promotion of decentralization program in Cambodia, so-call 'NCDD' (National Committee Decentralization and Decentration). Decentralization is connected to better maintenance of village to village roads, in no small extent, because CC is required to be responsible for supporting road maintenance.

In Cambodia, under the decentralization programs and the Commune Council, decentralization, was introduced by the UN based on models in western countries. It is now the task of Cambodia to make the country more liberalized and developed. The central government has gradually started to transfer authority to lower levels. In 1996, the central government started to explore decentralization in some distant provinces allowed to begin decentralized planning, financing, and management through 'NCDD,' funded by the donors group. The central government then established CC in 2001. Together with this, the central government immediately enacted the law on CC Administration in 2002. In the same year, 1621 CCs were born through elections. They mandated two tasks: 1) CCs are expected to be the representative government of their electorate and a state agent, and 2) they are expected to play a role in development at the commune and village levels (see the administrative structure chart from Ministry level to village level in Annex1).

As we mentioned above, CC has a responsibility for rural development. Therefore, CC are involved in rural road maintenance in some ways. In addition to CC, from a literature review, it was found that Village Development Committee (hereafter VDC) worked for the maintenance of roads in the village and played an important role. Therefore, it can be said that there are three actors involved in road maintenance; CC, VDC and villagers.

In this report, firstly, we would like to provide general information regarding roads, related organizations and villages upon which we conducted research. Secondly, we will move on to an analysis and discuss conditions of roads in the villages focusing on village to village roads thirdly. We will discuss what roles villagers, VDC and CC play and how they cooperate with each other. Finally, we will discuss how those actors should cooperate for good maintenance of roads.

1.2 Objective

We have two objectives for this research. First we wish to clarify the current situation of village to village roads and the relationship between CC, VDC and villagers in terms of maintenance of village to village roads, focusing on villages in the Srae Thmei commune. Second we wish to suggest how these actors should cooperate with each other for better maintenance of village to village roads.

1.3 Research question

How do CC, VDC and villagers cooperate in terms of road maintenance of village to village roads in Troak Kandal village in the Srae Thmei commune? In addition to this question, how do people in Troak Kandal village and Troak Lech village cooperate for the maintenance of the village to village roads?

In order to answer the above questions, we will introduce three related questions. First, “What is the current situation of village to village roads in Troak Kandal and Troak Lech village?” Second, “What are the roles of CC, VDC and villagers?” Third, “How do these three actors cooperate with each other for maintenance of village to village roads?”

1.4 Methodology

We conducted research in Srae Thmei commune. We visited two villages and related organizations such as the Ministry of Rural Development, and we collected information through interviews and secondary data. Selected villages for our research were Troak Kandal village and Troak Lech village. After mapping, we decided to focus on two roads; Road No.4 (here after No.4) and No.6 (here after No.6) (see Figure 2). The reason why we selected those roads is that No.6 belongs to two villages while No.4 belongs to one village (Troak Kandal) despite the fact that it crosses into the next village (Troak Lech). We thought that by focusing on these roads, we might be able to witness cooperation both within one village and between villages in terms of road maintenance.

The structure of interviews we conducted was Half-structured interview. Targets of the interview were: the Ministry of Rural Development (MRD) at the ministry and provincial level, the Ministry of Public Works and Transportation (MPWT) at the ministry, provincial and district level, NCDD at the district level, Srae Thmei CC, Troak Kandal and Troak Lech VDC, and Troak Kandal and Troak Lech villagers (see Annex1 regarding MRD, see Section 2.2 regarding CC, VDC and NCDD).

About villagers, we selected 30 households and conducted interviews with an adult from each household. Out of the 30 interviewees, 22 (6 male, 16 female) are from Troak Kandal village while 8 (4 male, 4 female) are from Troak Lech village. Among the 22 interviewees in Troak Kandal, 15 people (from 15 households) lives on No.4. These 16 households occupy 40% of the total households on No.4. The other 7 interviewees lives on No.6 in Troak Kandal, while 7 interviewees lives on No.6 in Troak Lech. These 14 households on No.6 occupy 60% of the total households on No.6.

Average age of targets is 45.6 years, and 25 out of 30 interviewees are farmers, while 5 are non-farmers. Some of farmers have secondary jobs such as selling fish, making pottery, cutting bamboo etc. About income, in Troak Kandal village, maximum income is 3,650 dollars and minimum is 28 dollars, while in Troak Lech village

maximum is 4,800 and minimum is 38 dollars.

Furthermore, there are some limitations of this research. Firstly, the number of samples was so limited that we could not assume our data reflects all villagers. Secondly, since we divided into two groups to conduct interviews, the way of asking questions to interviewees was different, and, between the two groups, the interpretation of terms were different in some extent. As a result we were faced with difficulties when we analyzed data. Thirdly, there was misunderstanding between researchers and translators on the interpretation of terms, so we could not always get information about what we really wanted to know.

2. General Information

2.1 Road

2.1.1 Road Category

Roads in Cambodia are divided into four broad categories: national, provincial, tertiary and sub-tertiary roads. There are three categories of sub-tertiary roads, including Sub-tertiary Road Type1 (ST1), Sub-tertiary Road Type2 (ST2) and Sub-tertiary Road Type3 (ST3). ST1 Roads refer to the roads between the districts and communes; ST2 Roads refer to the roads connecting with communes; and the ST3 Roads refer to the roads between communes and villages and the roads between two villages. The rural roads include the Tertiary Roads and Sub-tertiary Roads. The MPWT is responsible for the National and the Provincial Roads, while the MRD is responsible for the Tertiary and Sub-tertiary Roads (MRD, 2006).

2.1.2 Road condition in Cambodia

According to the Second Five-Year Socio-Economic Development Plan 2001-2005 (MRD, 2000), the total length of the trafficable road network in Cambodia (excluding railroads) is 38,411 km. This number includes 6,056 km of national roads, 3,555 km of provincial roads and about 28,800 km of rural roads.

A report published by JICA in 2006 highlighted that only 0.3% of the 18,948 km of rural roads was paved, whereas the rest was covered with earth or laterite. The section of unpaved rural road network was hardly accessible or non-trafficable in the rainy season, which often forced some parts of Cambodia to remain isolated as well as facing economic disruption.

In addition, the Economic Institute of Cambodia published a report about the rural infrastructure development in 2007. It highlighted that about 15% of the rural population in 2005 lived more than 5 km away from a year-round accessible road, compared to 20% in 2002. This shift implies that the condition of the rural roads has been made more accessible to the rural population. However, in 2005, 11% of the rural population had to travel more than 30 minutes by motorbike to reach the nearest year-round road. This shows that by now there are still a large number of rural people who have to spend substantial time before they can use a road network. Therefore, these people lack access to markets and public services, especially during the rainy season.

2.1.3 Condition of Rural Roads in Cambodia

As Table 1 shows, the total length of rural roads in Cambodia is 24,028km¹. Among these, 39.3% of the rural roads is filled with laterite, and 60.7% of rural roads is filled with earth. Concerning the condition of the rural roads, 16.4% of the rural roads is good to fair, while 83.6% of the rural roads is poor to bad.

According to Table 1, about 64% of rural roads is ST3 Road. Among them, 26% of ST3 Road is earth surface, and the rest are covered with laterite. On the road condition, only 12% of ST3 Road is in good condition.

Table 1 gives the exact proportion of the road condition by category. It shows that 64% of rural roads is ST3 Road. Among them, 88% of ST3 Road is under bad condition.

Regarding the rural road condition of Kampong Chhnang Province, there are 868.881 km of rural road, including 86.37 km tertiary road, 129.25 km ST1 road, 399.53 km ST2 road and 253.731 km ST3 road. The ST3 Road shares 29% of the total length of rural road. As regards the road surface of rural roads in this province, 63% of the rural roads is laterite-filled and the rest of them are earth-filled. And nearly 13% of the rural roads can be considered as good to fair condition, while about 87% of the rural roads is in bad condition (MRD, 2006). Since we do not have the details about actual condition of ST3 Road in this province, it is difficult to conclude that the ST3 Road in Kampong Chhnang Province is in bad condition. However, based on the data we mentioned above, we can make the conclusion that the majority of rural roads in this province are in bad condition.

Table 1 Rural Road Length by Type, Surfacing and Condition

| Road Type | Length(km) And share | Road Surface | | Condition | |
|-----------------|-------------------------|--------------|---------------|-------------------|--------------------|
| | | Laterite(km) | Earth(km) | Good to fair(km) | Poor to bad(km) |
| Tertiary | 1,972(8%) | 1,373 | 599 | 729(37%) | 1,243(63%) |
| ST1 | 2,651(11%) | 1,682 | 968 | 659(25%) | 1,992(75%) |
| ST2 | 3,949(16%) | 2,460 | 1,489 | 689(17%) | 3,260(83%) |
| ST3 | 15,456(64%) | 3,937 | 11,520 | 1,859(12%) | 13,597(88%) |
| Total | 24,028(100%) | 9,452 | 14,576 | 3,936(16%) | 20,092(84%) |

Source: Department of Rural Roads (DRR) of MRD, 2006 Strategic Plan for Rural Roads (MRD, 2006) P7

2.2 Related organization (NCDD-CC-VDC)

2.2.1 National Committee of Decentralization and Decentration (NCDD)

NCDD was set up by the Royal Government of Cambodia and United Nations Development Programme to promote Commune Councils as primary agents of local development and to emphasize the Governors' functions as main coordinators and promoters of provincial development. It was launched in 1996.

There are NCDD coordinators in District level NCDD office. These coordinators are working with CC in terms of mutual planning, monitoring whether CC makes committees for development, and cooperating as technical advisors for CC in regards to teaching how to monitor and evaluate. Since the main work of NCDD is to improve CC, and CC's main development task is to improve the roads in villages, NCDD works for CC's road reconstruction plan.

¹ The length of rural road of Cambodia in 2006 became shorter than that in 2000. It fell from 28,800km to 24,028km. We assume that it is because of development of road system in Cambodia from 2000 to 2006.

This means that NCDD is not involve in the road maintenance work, but allocates the task to VDC instead.

2.2.2 Commune Council in general

Commune Council (CC) is the smallest administration unit in Cambodia. Therefore, for villagers, it is the nearest administrative authority. CC is responsibility implementing rural development, and each CC can make its own development plan. That is to say CC has both legislative and administrative power.

One commune's size is around 15,000 to 20,000 people. An average of villagers under one CC is 8 to 15. A CC consists of 5 to 11 members. Some members are selected by free election and the others are commune clerks who are recruited by the central government and sent to CC. To achieve development at the commune and village level, CC makes "Commune Development Plans (5years)" and "Commune Investment Plans (3years)", and CC takes responsibility for implementing these plans.

CC receives funds (Commune Fund) from the Cambodian government through NCDD. They spend this fund for (1) administrative costs (copying, papers and stationery), (2) allowance for CC members, and (3) development programs of the "Commune Investment Plan". The third allocation for development projects is mostly spent on reconstruction/construction of roads. As table 2 shows, the main development projects by CC concern improving rural transportation by road reconstruction. We can say that the Commune's development plan is focused on road improvements.

As to the relationship between CC and NCDD, regarding development of rural roads, CC must write holistic reports about CC to NCDD every month on the 25th. CC also sends plans of reconstruction to NCDD. When the budget is allocated for CC's projects, coordinators inform CC. Moreover a NCDD provincial coordinator comes to collect the report from CC every month.

2.2.3 Commune Council in Srae Thmei

Srae Thmei commune consists of 12 villages. Its CC consists of 10 members: 1 commune leader, 1 first administrative officer (in charge of economic concerns), 1 second administrative officer (in charge of health, education and judiciary), 1 secretary (in charge of all documents), 1 assistant secretary, 1 person responsible for women and child affairs, and 4 members selected from 12 villages. There is no specific person who is in charge of rural roads.

Concerning rural development, Srae Thmei commune council asks all villagers in the commune to contribute money or labor for development programs. The Commune leader explained that the reason they ask for money from villagers is to make villagers have more responsibility for maintaining the road in their villages.

For example, in the year 2007, the Srae Thmei CC received 30,270,000Riel (7,567.5 US\$) from NCDD for development programs. They collected 1 million Riel (250 US\$) from villagers (3% of it is money contribution, 7% of it is labor contribution). The Commune leader explained that it is better to receive money from NCDD rather than from ministries, because NCDD can reflect the real needs of villagers better than ministries do.

In the same fashion as we see above, Srae Thmei CC is also in charge of rural road development at the commune and village levels. However CC has responsibility particularly for reconstruction projects concerning the widening of roads in the village. Therefore, in terms of road maintenance, Village Development Committee has responsibility. While CC just monitors the VDC's work of maintenance and gives technical advice as needed.

2.2.4 Village Development Committee (VDC)

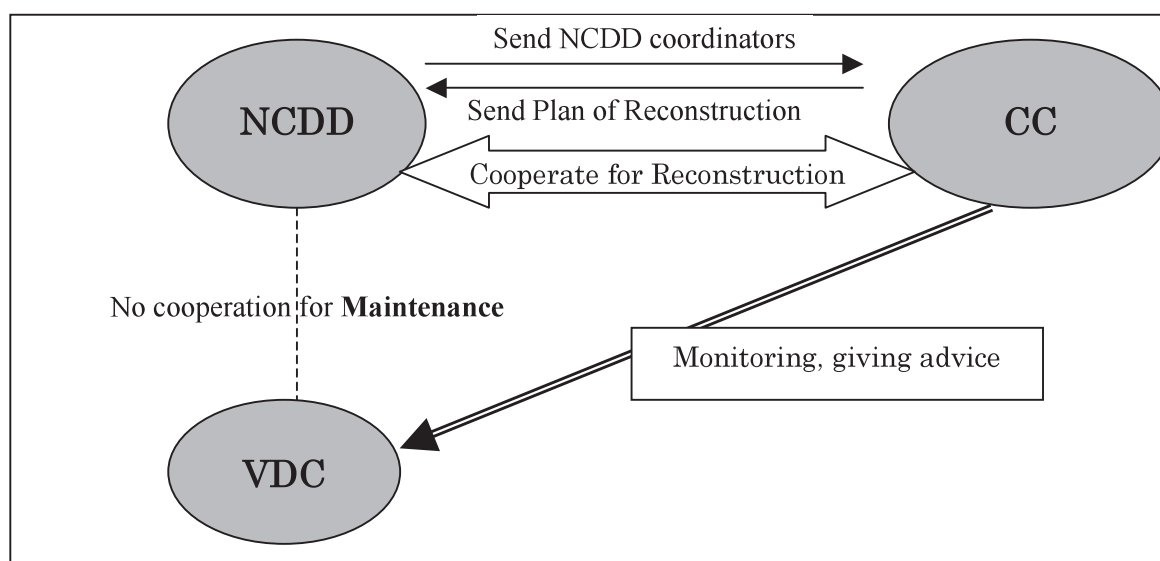
VDC is the foundation of the rural development structure. The people who are living in the villages elect the membership of VDC through a democratic process. We visited two villages, and in both villages we were able to

interview both VDCs. There are 5 members in the VDC. They are the chief, vice-leader, secretary, accountant and assistant. The standards for choosing VDC members require well-educated individuals, over the age of 18, and living in the village. VDC members don't have a fixed schedule to meet.

Both villages have a "Common Field," in which some villagers borrow land from the village and in return they have to give a certain amount of money or rice to the village as a rental fee. Therefore both villages can get some money from the "Common Field" every year. Beside this, they collect donations from villagers when they need money to repair roads in villages and between villages. VDC does not collect money as an annual tax from villagers. Generally, in the case where one village does not have enough money or labor, both villages help each other. However in the case of Troak Kandal and Troak Lech VDC, they do not cooperate for road maintenance.

CC does not touch VDC's budget. VDC has a meeting with CC monthly, and all the village chiefs attend the meeting. In the meeting, village chiefs have to report on the situation within the villages. The situation of villages includes information on population movement and on whether there are prevalent diseases of rice, cows or people, and on the activities of villagers especially in rainy seasons. VDC has its own budget from collecting from villagers in its own village. CC is not involved in VDC's budget nor in giving money to VDC. Therefore, as we see above, road maintenance is VDC's responsibility. VDC manages it from its own fund.

Figure 1 Cooperation among NCDD, CC and VDC on road reconstruction and maintenance



Source: Based on the field work by authors

2.3 Village

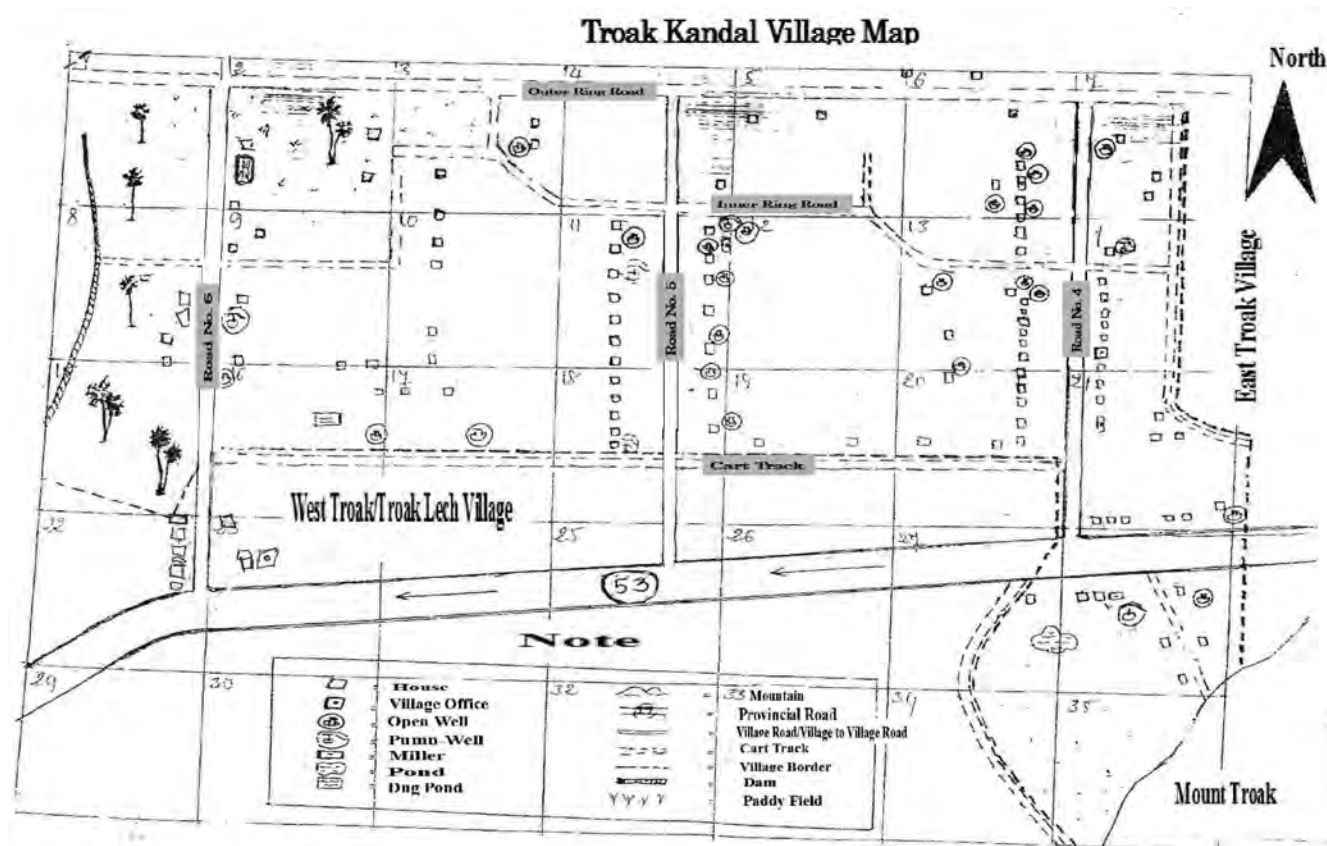
2.3.1. Troak Kandal

2.3.1.1 Geography

Troak Kandal village is located 15 minutes by car south of the Srae Thmei commune office. The northern part of the village is at a higher altitude than the southern part where the village's rice bowls are. The village has 189.67 ha of land, with paddy land requiring 112.5 ha, resident 27.6 ha, and other 49.57 ha. Troak Kandal has many road net-works. No.4, No. 5 and No.6 cross the village, while an outer ring road and inner ring road cross east-west. These two roads are cart tracks that play an important role for farmers to go to fields. The southern part of the village

is adjunct to national road No. 53. On the south western part of the village, No.6 runs crosswise starting from provincial road no. 53 from the south, passing from Troak Lech to Troak Kandal, and then goes to Tropeang Sbove village and Or-reusey village, then to Ponror commune and Krang Dey Meas mountain where excellent clay is dug to produce pottery. General information about Troak Kandal village is as follows:

Figure 2 Troak Kandal village map



Source: Based on the field work by authors

Table 2 information of Troak Kandal village

| | |
|-------------|---|
| Area | 189.67ha (paddy land:112.5ha , resident:27.6ha, other: 49.57ha) |
| Population | 630 people (336 Female, 294 Male) |
| Family size | 4.7 in average (The village is divided into 10 groups with 121 households) |

Source: Based on the field work by authors

Since the center and east part of the village has good condition for people to settle down, most of houses are crowded along No.4 and no. 5. There the attitude is higher compare the west part, it is possible to escape from rain flooding. Therefore, the density of population is higher compare to the No.6 area. In contrast, along No.6, there are many paddy fields and ponds, and few houses with only new families. In short, the village is divided into 2 parts, residential area in the west part of the village, and paddy fields, inundated in the rainy season where farmers come to cultivate rice.

2.3.1.2 Jobs/income

90% of villagers are farmers, and in off-season half of them do secondary jobs. These jobs include production of palm sugar by men, clay pottery by woman, and small businesses involving daily consumption products in the village. Some young villagers work as garment factory workers in the province or in Phnom Penh. Daily life of villagers in this village is therefore typical substance farming where most of the villagers' income is in rice and other agricultural products.

As elsewhere, the poor and the rich live in social strata. Here in the Troak villages, the rich refers to those who have good condition of houses, TV, motorcycles, ox-carts and many cows, and are able to produce rice much more than annual consumption. Fair living standard refers to those whose houses are not newly built or built of low quality wood, have no TV, only one ox-cart with one pair of cows, no motorcycle, but bicycles as means of transportation, and can hardly produce enough rice for one year's consumption. Sometime they don't have enough land to cultivate due to too many newborn children. Especially in new, large-scale nuclear families that have many small children, with only the two parents as the bread winners for the families.

In the village, there were not so many extreme poor. Those who were extreme poor in this case were mostly new-comers who had no land to cultivate or no secondary jobs. They were mostly are landless farmers.

2.3.2 Troak Lech

Table 3 information of Troak Lech village

| | |
|-------------|--|
| Area | 159.17ha (paddy fields:112.5ha, resident: 18.3ha, other: 28.87ha) |
| Population | 484 people (male:219 female:265) |
| Family size | 4.1 in average (The village is divided into 8 groups with 118 households) |

Source: Based on the field work by authors

Troak Lech is the nearest neighbor to Troak Kandal. They share the same Troak name and the same No.6. Troak Lech occupies a larger land area, annexing to provincial road No. 53. In this respect, we could see that, about location potential, Troak Lech has higher potential than Troak Kandal. Since the village has a smaller land area of 159.17 ha and less population, 484 people, than Troak Kandal of 189.67 ha with 630 villagers. Moreover, the maximum and minimum income distribution is also differently scattered. We could assume that the village has better living conditions, on average, compared to Troak Kandal.

Most of Troak Lech villagers are farmers and do secondary jobs in the off-season like in Troak Kandal. Since Troak Lech is located at a lower altitude than Troak Kandal. This natural condition requires Troak Lech to work harder to keep No.6 in good condition. Because the road surface is lower than the road side, it is easy to be eradicated by water. Troak Lech village's general information is as follows:

3. Data Analysis of related questions

3.1 Current Road Condition

There are interesting findings from observing roads and from interviewing villagers about their perception of these roads. From observing, we can see many differences. Firstly, the difference is that NCDD's reconstruction was done on No.4, however it is not yet started on No.6. As a result, No.4 is wider than No.6. Secondly, the user of each road is different. The major user of No.4 is Troak Kandal and Troak Lech villagers themselves. However the major user of No.6 is villagers and outsiders (here "outsiders" means people from outside of Troak Kandal or Troak Lech villages).

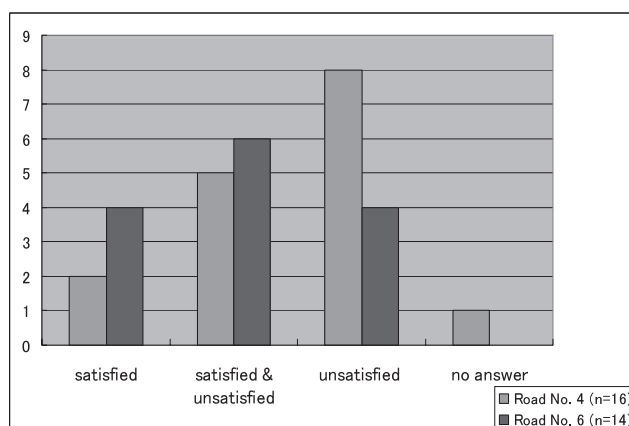
This finding came from the facts below:

- (1) No.6 is connected with the next communes, therefore more outsiders use No.6 than No.4,
- (2) None of the interviewees living along No.4 and No.6 own any machine-driven-cart or truck. These vehicles' owners are outsiders in this village. Villagers see only few machine-driven-carts or trucks on No.4, however many villagers see those vehicles on No.6. This means more outsiders use No.6 than No.4.
- (3) Moreover, since No.6 goes to Krang Dey Meas mountain where people can get pottery clay, more outsiders use No.6 than No.4

Besides observation, we found different opinions about the road condition from interviews with villagers. In No.4, among 16 interviewees, there were 2 persons who said that they were satisfied with current road condition; 5 people said that they were satisfied in one point and unsatisfied in another point. There were 8 people who said that they were unsatisfied. The reasons for un-satisfaction varied. Most raised more than one reason. Among these, the most popular reason was road eradication. Since No.4 is located in higher land than No.6, once it rains the water removes the land of the road. Therefore, eradication often happens in No.4. Remaining reasons were holes on the road (5 people), while 6 people mentioned dustiness in dry season.

On No.6, the evaluation of the road is different from No.4. Among the 14 interviewees, although there were 4 people who said that they were unsatisfied, there were 4 people who said that they were satisfied and 6 people said that they were satisfied in one point and unsatisfied in other point. The reasons for satisfaction were road cleanliness and flatness. 6 people mentioned lack of water drainage systems as a problem. This is because No.6 is located in lower land than No.4. Therefore when it rains, water flows into No.6 and remains there. Other reasons for dissatisfaction are No.6's narrowness. Also, as with No.4, people raised the concern of dustiness in dry season as a reason for dissatisfaction.

In conclusion, on No.4, half of the people were not happy with the road condition. In contrast, on No.6 there were 10 people among 14 who were happy or relatively happy with the road condition. In addition, we can say that the problems of the two roads are different and the road users are also different between No.4 and No.6, even though the roads are located in the same village. Below we will analyze how the villagers are coping with the problems in each road.

Figure 3 Villagers' satisfaction level with road condition

Source: Based on the field work by authors

3.2 Roles of CC, VDC and villagers in terms of road maintenance

In this section, based on the result of interviews we conducted (we used data of Troak Kandal village; 22 residents, 15 from No.4 and 7 from No.6 out of the 22 residents), firstly, we will see who participates in road maintenance and what their activities are. Secondly, we will see the role of each actor respectively and how VDC's performance is evaluated by villagers. Finally, we will identify the ideal actors for villagers in terms of road maintenance.

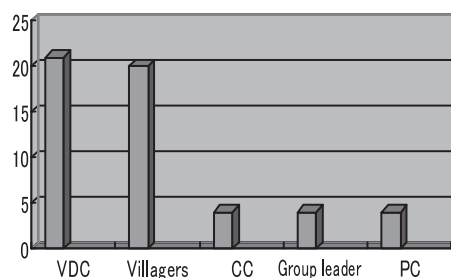
3.2.1 Participants in maintenance of village to village roads

Regarding participation in road maintenance, it was found that villagers and VDC mostly participate in road maintenance, but CC has only little responsibility for road maintenance. According to the result of interviews, 20 out of 22 Troak Kandal villagers answered that villagers mostly participate in road maintenance, and 21 villagers answered that VDC also participates. On the other hand only 4 villagers answered that CC participates. In other minority opinions, 4 people answered that group leaders (here after GL) and Pagoda Committee (here after PC)¹⁾ participate. Furthermore, we did not divide data into No.4 and No.6 for analysis here because the same tendency was found in both roads. (see Figure 4).

According to the answers, we found that VDC and villagers were the main actors in road maintenance. Therefore, we will focus on particularly the role of VDC and villagers.

¹⁾ Pagoda Committee (PC) is a committee of monks. Generally they collect money for construction of schools and temples and for road maintenance etc. in a festival. PC consist of a leader who is a monk in the highest position in a temple and 4 departments under the leader; material committee, construction committee, technical committee and Acha. Construction committee consists of 14 members and has responsibility for road maintenance.

Figure 4 Participation to road maintenance (multiple answers allowed)



Source: Based on the field work by authors

Note: * We did not divide data into No.4 and No.6 for analysis here because the same tendency was found in both roads.

3.2.2 The role of villagers

Table 4 Participation aspects of villagers

| | Money | Labor | Gathering Following | Material |
|--------------------------------|-------|-------|---------------------|----------|
| No.4 (15) | 12 | 13 | 3 | 2 |
| No.6 (Troak Kandal) (7) | 5 | 6 | 5 | 6 |

Source: Based on the field work by authors

About villagers, according to the table shown above, most of the interviewees from both roads participated in the road maintenance by paying money and through labor. Only few of them participated in the gathering following people.

Concerning material supply², only 2 out of 15 interviewees in No.4 said that they supplied material such as laterite, while 6 out of 7 interviewees in No.6 answered that they provided tools and laterite. We found that 6 out of 7 of the interviewees who belonged to Troak Kandal in No.6 said that they provided material for road maintenance, while only 2 out of 16 interviewees who belonged to the same village in No.4 said that they supplied material for road maintenance.

It is common for villagers from both roads to participate in the road maintenance by supplying money and labor. This shows the important role of villagers in terms of road maintenance. But for material supply, since people usually go to a location near No.6 to take laterite, while it is far from No.4, we can assume that the motivation for laterite supply of people from No.4 will be lower than the people from No.6. It can be concluded as one reason for the low rate of material supply in No.4 comparing with No.6.

As to the reason for participating in road maintenance, most of the people living around No.4 said that it was because they themselves were users of No.4. On the other hand, answer from people living around No.6 was more various. 2 people answered that they felt the road should be easier to use. Other people said: they should make the village more beautiful and safer; road maintenance was voluntary work; road maintenance was important for

² Material Supply is divided into tools supply and laterite supply in this paper. In Cambodia, villagers participate with road maintenance with their own tools. And the rest of the laterite, which is provided by villagers, will be brought back by them.

villages; and bad road condition influences other's life.

3.2.3 The role of VDC

Table 5 Participation aspects of each actors (villagers are excluded)

| | VDC (Labor) | VDC (Money) | CC (Labor) | CC (Money) | PC (Labor) | PC (Money) | GL |
|------------------|------------------------|------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------|
| No.4 (15) | 15 | 10 | 3 | 3 | 2 | 4 | 7 |
| No.6 (7) | 7 | 7 | 1 | 2 | 5 | 3 | 0 |

Source: Based on the field work by authors

Notes: * CC's money supply means that CC gives money to village.

* PC's money supply means that PC collects money in a ceremony and gives it to village.

* VDC's money supply means that VDC collects money from villagers and the common field, and uses it for road maintenance.

* For CC, VDC and PC, Labor supply means collecting villagers for labor.

Regarding the VDC, the table above shows that 17 out of 22 interviewees thought that VDC has the responsibility for the money supply of the road maintenance, and 100% of the interviewees answered that VDC also had the responsibility for the labor supply of the road maintenance. This shows clearly the participation of VDC in terms of road maintenance.

Next, we would like to see whether villagers are satisfied with VDC's road maintenance.

Table 6 Villagers' satisfaction with VDC

| | Troak Kandal Village | |
|--------------------------------------|-----------------------------|-----------------|
| | No.4 (15) | No.6 (7) |
| Satisfied | 7 | 5 |
| Yes, but have dissatisfaction | 0 | 2 |
| Dissatisfied | 8 | 0 |

Source: Based on the field work by authors

The table above shows that 7 out of 15 interviewees from No.4 were satisfied with the current road maintenance and 8 of them were not. Comparing with this, 5 out of 7 interviewees from No.6 were satisfied with the road maintenance, and 2 of them were partly satisfied with current road maintenance.

Interviewees from No.4 were satisfied with 3 positive aspects related to VDC's current road maintenance including immediate action, high quality and work opportunities for villagers. On the other hand, they also gave us 2 negative answers which included slow action and low quality of VDC's road maintenance. Comparing to this, interviewees from No.6 provided 5 positive aspects related to VDC's road maintenance which included immediate action, high quality, work opportunity for villagers, quick restoring and repair strongly. No negative comment was mentioned.

Based on this analysis, it is clear that villagers from No.6 were satisfied with VDC's road maintenance. They gave VDC high appreciation for what VDC had done in terms of road maintenance. On the contrary, although

villagers from No.4 were satisfied with VDC's road maintenance in 3 aspects, there were 2 aspects which they were not satisfied with.

One of the negative aspects which were mentioned by villagers from No.4 was the slow action of the road maintenance. This can be explained through two aspects. Firstly, as the table shows, 12 out of 15 interviewees from No.4 and 5 out of 7 interviewees from No.6 provided money to VDC. There were also nearly the same numbers of people from both of the two roads who provided labor for road maintenance. On the contrary, 6 out of 7 interviewees from No.6 supplied material, while 2 out of 15 interviewees in No.4 provided material. Since the laterite is the basic material for road maintenance, the lack of laterite supply in No.4 can be taken as the reason for slow action of road maintenance. This has been explained in the analysis of villagers' participation (see table 6). We can assume that if VDC provided some carts for delivering laterite and organized villagers to participate in road maintenance, then the lack of laterite could be dealt with. This means that in order to overcome lack of laterite, it is necessary for VDC to improve its leadership and management capability. In addition, if the ownership recognition of the villagers for road maintenance could be improved, we could suppose that lack of laterite would not be a problem any more.

3.2.4 The role of CC

In contrast, only 4 villagers answered that CC participates in road maintenance. And only 4 out of 22 interviewees thought that CC should be responsible for the labor supply of road maintenance, while 5 thought that CC should also be responsible for the money supply of road maintenance. This means that CC does not participate in the road maintenance very much.

In addition, according to other minority opinions, some other actors such as PC and GL were also mentioned as participants through their labor and money support in terms of road maintenance. Among the interviewees, 4 people answered that group leaders (GL) and Pagoda Committee participate.

3.2.5 Ideal actors for road maintenance according to villagers

Table 7 Ideal actors for road maintenance

| | VDC | CC | PC | Villagers | GL | NGO |
|------------------|-----|----|----|-----------|----|-----|
| No.4 (15) | 15 | 5 | 3 | 10 | 2 | 3 |
| No.6 (7) | 6 | 0 | 1 | 2 | 0 | 0 |

Source: Based on the field work by authors

This table shows that only 5 out of 22 interviewees thought that it was the responsibility of CC for road maintenance. There was a gap between No.4 and No.6 about the CC's responsibility for road maintenance. In No.4, 5 out of 15 interviewees thought that roads should be repaired by CC. On the contrary, nobody in No.6 thought that it was CC's responsibility. This can be explained by the idea that most of the villagers do not think it is necessary for CC to participate in the road maintenance. And villagers thought that with the support from villagers themselves it was possible to keep good road maintenance.

As regards attitude towards VDC, most of the villagers from both roads had the same idea. All interviewees from No.4 and 6 out of 7 interviewees from No.6 had the same idea that roads should be repaired by VDC. This also shows that villagers have strong trust towards VDC's role in terms of road maintenance. This strong trust has been fostered by the fact that VDC has been taken as the main actor in road maintenance until now, as we already saw in Figure 4.

According to the interviews, the role of villagers in road maintenance seems different between No.4 and No.6. 10 out of 15 interviewees from No.4 and 2 out of 6 interviewees from No.6 thought that villagers should repair the roads. However, the different ways we asked the questions during the interview can be assumed as the reason for the differences.

In addition, GL and NGOs were also mentioned as ideal actors in terms of road maintenance.

3.3 Cooperation among the three actors

In this section, we will focus on the cooperation between CC, VDC, and villagers in Troak Kandal village in terms of road maintenance.

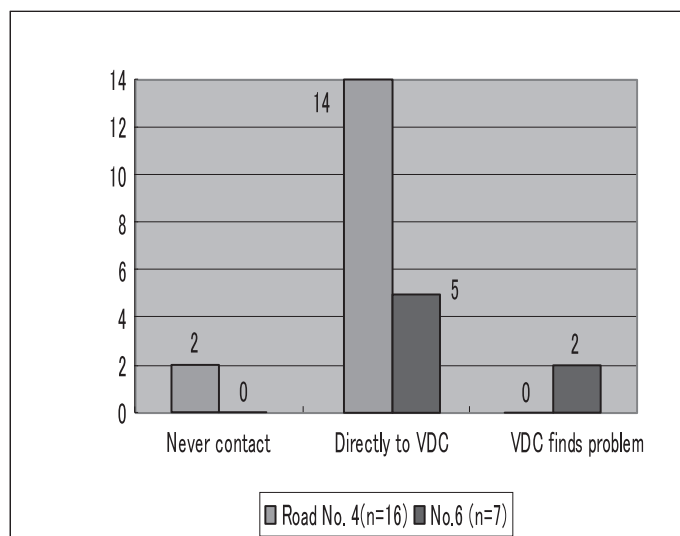
First, regarding the current road condition along both roads, we found different conditions on each road. No.6 was in good condition, but No.4 was not in such good condition (from figure 3 showing satisfaction of villagers on road condition in our analysis). Therefore the current situation of roads is different although they are both under control of the same VDC. Through focusing on cooperation among villagers, VDC, and CC, we would like to find out the reason for different conditions of roads.

3.3.1 Relationship between VDC and Villagers viewing through monitoring activity

First, we start our analysis from how villagers and VDC cooperate for monitoring the road. This aims to find the cooperation between villagers and VDC. In Figure 5, we found the tendency in Troak Kandal village that most of the villagers tell VDC the problems of roads damage directly when they find them. 5 of 14 villagers came directly to VDC to inform them about road damage. On contrary, 2 villagers in No.6 answered that VDC finds problems by themselves. This means that VDC actively monitors No.6. However in No.4, there are 2 villagers who cannot contact VDC because they cannot trust VDC. In short, we found that the villagers themselves have the responsibility for maintenance of the road though VDC frequently monitors this.

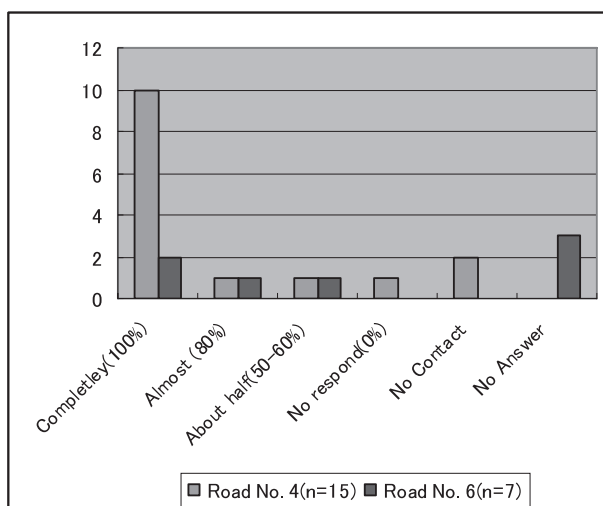
Here we would like to find out how many times VDC responds to villagers' alerts about damages to roads in Troak Kandal village both along No.4 and No.6. Here, we can see how the two actors cooperate by seeing the rate of contact and the rate of response from VDC.

Figure 5 The ways to contact VDC about road maintenance



Source: Based on the field work by authors

Figure 6 The response rate from VDC to villagers in Troak Kandal Village



Source: Based on the field work by authors

From Figure 6 we can see that, in No.4, 10 out of 15 interviewees answered that VDC responds completely to their contact, 2 answered that VDC responds from half of the time to almost all of the time, while 1 person claimed that VDC responds to them not at all, and 2 have never contacted with VDC about broken roads. These 2 people were those who had never contacted with VDC from the previous figures. According to their answers, because they were poor, they assumed that VDC doesn't listen to them. Here, we can see that VDC responds to most of the villagers' contacts. Still there are some constraints due to poor participation.

In the case of village to village road No.6, 2 out of 7 interviewees received complete responses from VDC on road damage alerts. 1 said that VDC responds in almost all cases that they inform, while another one said that VDC reflected only about half of their information. Unexpectedly, 3 of the interviewees had no answer. They seemed to be never worried about the road condition. The road is always clean and in good condition, and the road is usually

repaired before they say something to VDC. From here, we could see that although VDC responds to villagers' contacts, it still checks and repairs the road quickly.

From the figures above, we can find the high direct contact to VDC from villagers and high response from VDC. Therefore VDC and villagers have strong and close cooperation for maintenance activities.

3.3.2 CC and maintenance activity in the village

Regarding cooperation with CC on road maintenance activities, CC advises VDC to establish "road maintenance committees" in which VDC is the center of the committee, and all villagers participate in the activities to keep the long-term good condition of roads. However, maintenance activities have changed little since this establishment. In terms of road maintenance for budget and management of the activities, CC leaves all the responsibilities to VDC. CC stands behind to monitor and advise the VDC and its committee. VDC has to report to CC monthly on all current situations in the village, including road maintenance activities.

Here, we can see that CC and VDC have a direct and close administrative relationship. CC and villagers have indirect cooperation for maintaining roads, because CC leaves road maintenance to VDC and VDC works with villagers in the activities.

3.3.3 Participation of villagers and road users from outside the village

From role analysis of the three actors, we found that the main actors of road maintenance are VDC and villagers. The involvement of mass participation of villagers and road users from outside keeps a good condition for No.6. Villagers of No.6 themselves participate with money, labor, material contribution, and gathering followers. For No.4, the contribution rate is high with only money and labor participation. On the other hand, outside road users cooperate in maintenance by contributing laterite that they dug from the mountain to fill small holes along the road. Since No.6 is important for them to carry laterite from the mountain, and they have a perception of how to maintain long-term road maintenance by contributing to fill small holes that they discover along the road, they cooperate in maintenance by themselves. Therefore we can assume that those factors cause No.6 to have better condition than No.4 with the road users' laterite contribution and higher labor contribution.

3.3.4 Village-Village cooperation

Table 8 Cooperation among villagers maintaining village to village No.6

| | Troak Kandal | Troak Lech |
|----------------------|--------------|------------|
| Yes | 2 | 3 |
| Yes but not so often | 2 | 1 |
| No | 3 | 3 |

Source: Based on the field work by authors

Since Troak Kandal and Troak Lech share the same village to village No.6, the cooperation between the two villages on how to keep accessible condition in all seasons is necessary. From interviews with both villages' VDC, we found that the two VDCs have no cooperation in road maintenance along No.6. They usually manage the activity on their own convenience. They don't need to repair the road on the same day or share laterite with each other.

Villagers from both villages do cooperate with each other in road maintaining activities. They don't hesitate to

cooperate if the next village asks for help both in money donation and laterite paving labor forces. From the table we can see 4 out of 7 villagers in both villages go to help each other in these activities. More than half of them do have a cooperative spirit in distributing to road maintenance.

There are at least 3 out of 7 people who don't go to help each other. This is because they live at the far side of the village and it is difficult for them to cooperate in the activity.

3.3.5 Problems of cooperation

From the analysis, we found that the cooperation between VDC and villagers is an influential factor for road maintenance. However, there are still some problems of cooperation which need to be dealt with.

3.3.5.1 Overloading

We assume that the probable cause of road destruction is overloading³ of ox-carts. Moreover, ox-carts with loads of too much wood, pottery and agricultural stuffs can also be the cause of damage to the road.

Here, we surveyed if VDC had the duty to instruct the villagers on loading of goods. The aim of this question was to clarify if villagers cooperate for maintenance of the road through following the instruction from VDC. According to the answer from the villagers, 6 out of 7 of No.6 villagers in Troak Kandal have received instructions from VDC. VDC seems to function well at this point. Furthermore, those who answered that they follow instructions were only 2 out of 6. From the data, we found villagers don't cooperate much with VDC for loading regulation in villages.

From this analysis we could see that overloading knowledge spreads among villagers. They cooperate to keep the road in good condition by stopping the use of big iron-covered wooden wheels on ox-carts, and shifting to the use of tires. Tires are soft and not sharp, and don't damage road surfaces.

It was assumed that villagers are not overloading carriers with their ox-carts if compared with truck overloading. Here, we learnt that villagers' definition of overloading has gaps between that of authority and among villagers themselves about different understandings of the weight and quantity of stuffs to be loaded from one villager to another.

Although the ox-cart probably is not the crucial destroyer of roads, it is possible that overloading ox-cart can also damage the roads. Therefore overloading of ox-cart is also necessary to instruct how to load.

However, there are three problems in the actual situation in terms of road maintenance. First, some villagers don't really follow the policies, since instruction is not compulsory and definitions given by VDC are not clear enough. Secondly, as we have already seen in the first part about the condition of the road, many outside road users who drive machine-driven carts with heavy stuffs usually travel on No.6. However, the instruction on overloading toward those travelers cannot be implemented by VDC because of the lack of power and restriction measures. This means that outside village road users don't follow the overloading instructions. Finally, after the interviews with MPWT and villagers, different definitions of overloading came out. From this, we can see that the official definition of overloading is not penetrating into lower levels.

3.3.5.2 Financial problems of road maintenance

From the interviews with villagers, money contribution from villagers to VDC is taken as one of the most important issues regarding current road maintenance. Although the cooperation between VDC and villagers for money supply is kept at a high level as we saw in this section, still the problem of lack of money cannot be solved.

³ There are two definitions of overloading. For MPWT, the definition is "to carry 5 to 10 tons of stuffs in the case of latrine road. For villagers, it is 'as much as they can load on their ox-cart.'"

To solve this problem, the involvement of CC for financial support is necessary.

3.3.5.3 Problem of slow action

Additionally, slow action of VDC in terms of road maintenance in No.4 can be taken as another problem. According to interviews, we found that long distances to the laterite mountain led to villagers' low motivation of supplying laterite. This highlighted lack of cooperation between VDC and villagers for material supply and causes delayed road maintenance activity. In order to deal with this problem, strong leadership and management of VDC as well as high incentives for villagers are desirable.

4. Conclusion

Our purposes were to find out the roles and cooperation among the three actors, CC, VDC and villagers, in terms of road maintenance in Troak Kandal village. We found that CC was not very involved in road maintenance, but played an indirect role in road maintenance such as giving advice and monitoring road maintenance done by VDC. Therefore CC did not cooperate with VDC and villagers directly. We found that the main actors were VDC and villagers who worked on the ground in road maintenance. The roles of VDC are collecting money from villagers and common land fee and mobilizing villagers as labor. VDC also gives instruction about overloading to villagers. The roles of villagers in road maintenance are contributing money, material and labor forces in paving laterite on road surfaces.

Through their roles, VDC and villagers work closely. Particularly, VDC's strong initiative and villagers' ownership in road maintenance are the main factors for maintaining the roads. However the condition of the two roads in Troak Kandal Village is different. When compared to No. 4, No. 6 is in better condition. This attributes to the fact that villagers are more active in participation on No. 6 than on No. 4. Moreover, there is cooperation of road users from outside. Concerning the cooperation between villages, we found that VDC does not cooperate with other VDC, yet villagers in one village cooperate with those in the next village without VDC's initiative.

However we found some facts should be paid attention to. One is that VDC's response speed to road maintenance is different between No.4 and No.6. This is because of the different conditions in access to the material, laterite, for road maintenance. For example, No.4 is farther from laterite collecting areas than No.6, so the maintenance of No.4 is slower. The other is that there are some people who cannot contact VDC in the village, because they feel powerless to speak out to VDC directly.

Through the field work, we also found another problem of overloading. Overloading is mainly caused by road users from outside the village, and instruction on overloading from VDC is not clear enough for villagers. In addition VDC cannot give any instruction about overloading to outsiders. Since CC is in charge of all VDCs' activities including road maintenance, CC is in the position to deal with the overloading problem. However we found that CC also could not handle this problem, as CC leaders said that those overloading outsiders were too dangerous to stop them.

We think that to understand the road maintenance in more detail, the data of outsiders of overloading from aspects such as their perception and frequency of traveling are needed as further research.

5. Recommendation

From our conclusion, we would like to suggest solution to tackle with these problems. For the problem of the distance to laterite collecting area, we suggest that VDC should create a LATERITE SHARING SPOT in village and managing system. The system should be run by existing groups in the village and VDC's leadership. To do so, VDC and group leaders meeting should be regularly opened to share information about road situation and laterite collection. After that, group leaders mobilize group members to collect laterite from laterite collecting areas in rotation. Also, LATERITE SHARING SPOT should be supervised by VDC. From this laterite sharing spot, villagers take laterite for road maintenance when they need.

Moreover, for the problem of unequal contact between VDC and villagers, VDC should more approach villagers in order to collect villagers' voices.

In addition, in order to solve the problem of overloading, we would like to give suggestions to VDC and CC. Firstly, for villagers, VDC needs to make the overloading definition clearer and inform it correctly. Secondly, to manage the outsiders' overloading problem, as we can see from villagers' different interpretation of the word "overloading" and different definition between VDC and MPWT, in Cambodia the notion of overloading is still very unpopular among ordinary citizens. Therefore it is important that the Cambodian government gives a clear idea of "overloading" to local governments and that they make it popular among the people.

6. Acknowledgement

We would like to thank those who cooperated with us in conducting our research. Especially thanks to Villagers in Troak Kandal and Troak Lech village, VDC in villages, CC, MRD, MPWT and RUPP partners. At the same time, we also appreciate the help that we got from our Advisors especially Prof. Yasushi Hirosato and Prof. Takako Suzuki. Without their help, we could not have completed this research. We wish their happiness in the future.

7. Reference

Donnges, Ch. and Edmonds. G eds (2007) "Rural Road Maintenance"—Sustaining the Benefits of Improved Access, Bangkok, International Labor Office

JICA (2002) The Kingdom of Cambodia – From Reconstruction to Sustainable Development

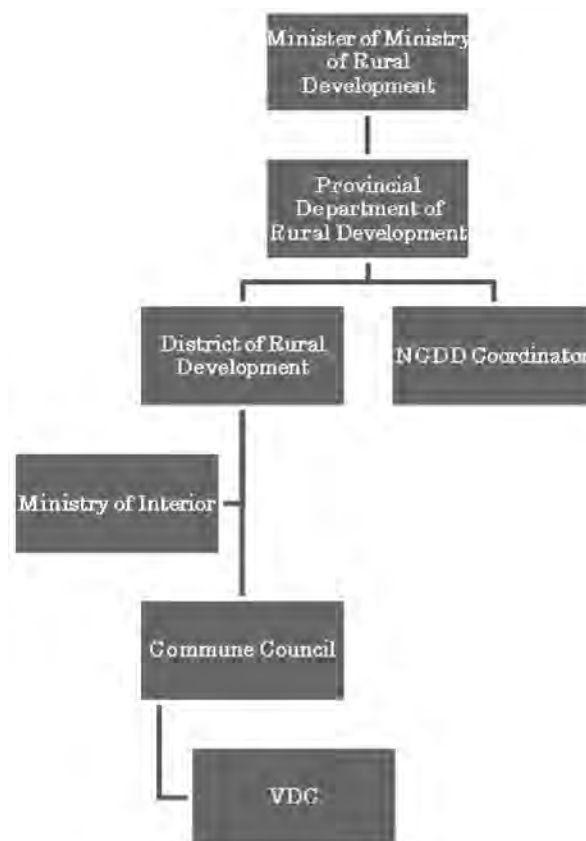
MRD (2000) Second Five-Year Socio-Economic Development Plan 2001-2005

MRD (2002) Policy for Rural Roads, ROYAL GOVERNMENT

MRD (2006) Strategic Plan for Rural Roads, Cambodia, Royal Government

World Bank (2003) Rural Infrastructure Indicators in Cambodia

Annex 1. Administrative Chart



This chart shows the administrative relations in terms of rural roads in Cambodia. Although the jurisdiction of CC is moved from MRD to Ministry of Interior due to the NCDD, MRD has something to do with CC in the relation of VDC. Therefore two Ministries have a role in this flow.

Ministry of Rural Development (MRD)

This is the ministry which governs rural road in Cambodia. MRD takes charge of VDC and each level of administration. However Commune Council is not under control of MRD.

Ministry of Interior (MOI)

This is the ministry which “shall have the mandate to guide and control all levels of provincial administrative authorities, supervise the national police, protect social order and security, and provide safety to the people of the Kingdom of Cambodia” from the law on the establishment of Ministry of Interior. This Ministry governs the administration of Commune Council.

Generating Income through Commercialization of Local Products: Rice, Palm Sugar, and Pottery Products

**-Tropaing Sbov village, Srae Thmei commune, Rolea B'ier
district, Kampong Chhnang Province, Cambodia-**

1. Introduction
2. Results (1) -Rice-
3. Results (2) -Palm Sugar-
4. Results (3) -Pottery Products-
5. Similarities and Differences among Producers of the Three Products
6. Conclusions
7. Recommendations

Group Advisors

Prof. Fujio Kawashima

Prof. Ly Vanna

Assistant

Samreth Mammoun (GSID)

Written by

Koji Ishikawa**

Heng Molyaneth

Ngoun Sethykun

Felippe Araujo

Xiaoming Pan*

Daisuke Kobayashi

**Group Leader *Sub leader

1. Introduction

People in Srae Thmei commune are engaging in three main kinds of business: production of clay pottery, production of palm sugar and rice farming.

1.1 Geography

Tropaing Sbov village is located in Srae Thmei commune, Rolea B'ier district, Kampong Chhnang Province. It borders with Andong Russey village on the north, Prey Moin village on the north-east, Santouch village on the east, Trok village on the south, and Pongro commune on the west. The total area of Tropaing Sbov village is 358.92 hectares, which consists of 113 hectares of paddy fields, 51 hectares of residential area, and the remaining area is mountainous.

In Tropaing Sbov village, there are a total number of 199 families or 16 collective groups, which consist of 866 people (471 females). About 90% of the total residents grow rice in the rainy season. In the dry season, most of the families produce palm sugar in order to sell at the local markets or to middlemen. Moreover, a peculiarity about Tropaing Sbov village is that some people produce clay pottery, throughout the whole year, to meet the demand from locals as well as from farther provinces and the capital city. (Kampong Chhnang province has been famous for clay pottery since ancient times.) Besides the main products of rice, palm sugar and clay pots, some of the villagers collect firewood for cooking, processing of palm sugar, and selling to markets. All in all, although people in Tropaing Sbov village can eke out a living from various occupations, their income is still limited due to their lack of experience in commercializing their products.

1.2 Assumptions

Related to the commercialization of the three products (rice, palm sugar, and clay pottery) in Tropaing Sbov village, we assumed that the following are the main constraints: inexistence of clusters, lack of market information, poor means of transportation, poor storage systems, and lack of capital. First, there are no agricultural clusters/cooperatives in the remote areas in Cambodia. The lack of such cooperatives leads to scattered agricultural production and scattered product sales. As a result, villagers lack bargaining power, which impedes them from gaining higher prices on the market. Second, we assumed that they do not have enough market information which makes them pay a high cost during commercialization and get a low price from their customers. Sometimes, villagers can be deceived by buyers, since there is a shortage of price information regarding the market. More than this, villagers tend not to be able to compete with other producers/suppliers on the market. Third, poor means of transportation is very prevalent in the rural areas in Cambodia. Since they are poor, villagers can afford only ox-cart or bicycles to transport their products to the market. For those who do not have such means, they have to sell their products at home, failing to get the higher price at the far-distance markets. Also, they might not have a chance to even get market information of their products. Fourth, their products are in low quality due to the fact that they have poor storage systems. As a result, they have to sell their products at a low price before they are spoiled. Finally, the producers are assumed to lack capital. With no capital, they cannot afford to have a promotion scheme for their products. With no capital, they have to borrow money from other sources such as informal

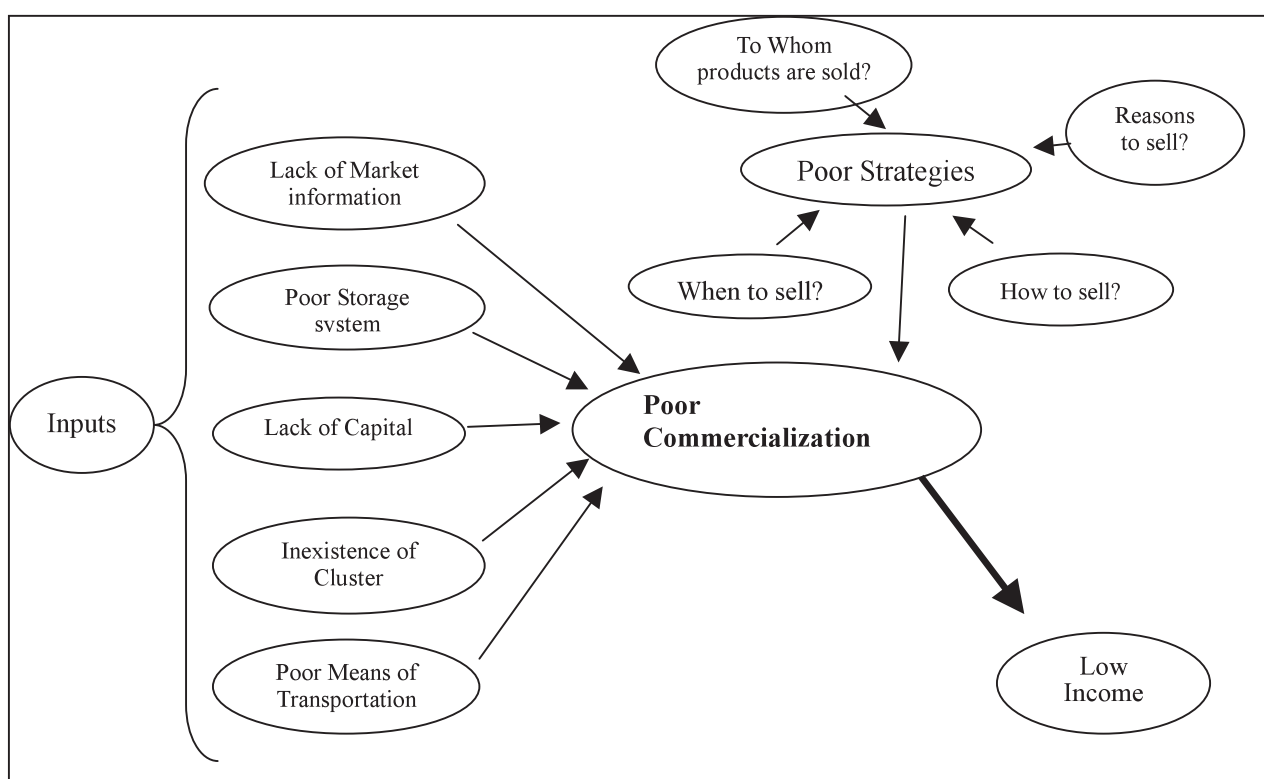
sectors or financial institutions. Furthermore, they are forced to sell their products early to meet their everyday life expenditure.

Based on the six assumptions above, we decided to do more research regarding rice, palm sugar, and clay pottery at Tropaing Sbov village, Srae Thmei commune, Rolea B'ier district, Kampong Chhnang Province to meet the objective below.

1.3 Conceptual Frameworks

The following is the figure of our previously assumed conceptual framework.

Figure 1 Conceptual Framework



1.4 Research Objective

This research is conducted in order to investigate the underlying problems in commercializing local products (especially clay pottery, palm sugar and rice) for producers at Tropaing Sbov village, Srae Thmei commune, Rolea B'ier district, Kampong Chhnang Province, and in order to recommend possible solutions to the villagers, which enable them to generate reasonable levels of income.

1.5 Research Question

“How can producers in Srae Thmei commune improve commercialization of their products to generate more income?”

1.6 Research Methodology

To get the primary data for this analysis, we interviewed 37 people in the village: fourteen rice producers, fourteen palm-sugar producers, and nine clay pot producers. We use three different kinds of questionnaires specifically applied to each product, however each contains similar questions based on the six assumptions above.

2. Rice

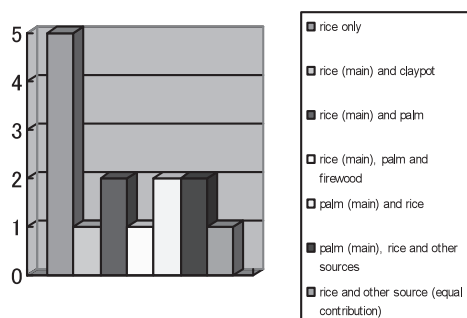
2.1 Respondents' Profile

According to the interview of the village leader, around 90% of the 199 village families are engaged in rice production in Tropaing Sbov Village, Srea Thmei commune, Rolea B'ier district, Kampong Chhnang province, Cambodia. Among them, we interviewed 14 rice producers; 7 male and 7 female. Age groupings are from 30's to 60's, and family average size is 4 people.

2.2 Pattern of Income Generation of Respondents

Although around 90% of village families are engaged in rice production, in most cases, such activity plays only a secondary role in their income generation, since they sell merely the surplus from the amount necessary for self-consumption. Fourteen families of rice producers were interviewed, most of them with a diversified source of income.

Graph 1 Income activities



Graph 1 presents the number of interviewees who declared that they were engaged in each combination of income generating activities, specifying which is the main contributor to the family's revenue. Interviewed farmers affirmed that they produce rice for their families' own consumption and sell the exceeding share (in most cases, the portion with the highest quality) to acquire money. The most common reason for choosing rice farming is following family tradition. Lack of alternative choices and low level of education are the next most

recurrent reasons. Almost all of the farmers stated that they had been engaged in rice production since they were

around 10 years old. In one curious aspect regarding to the current disequilibrium of local market, all respondents declared that they were able to sell, at the current price, any additional amount of rice produced. This indicates that either the market demand for rice exceeds its supply, or that local dealers have strategies to influence the market prices.

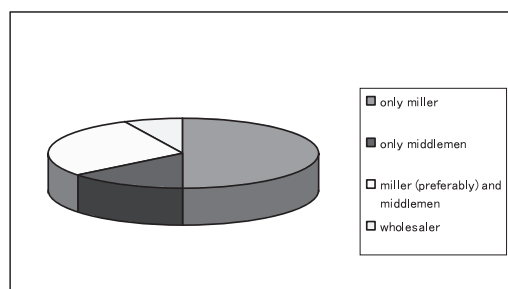
2.3 Nature of rice farming activity

Rice is the most common crop in the Cambodian ecosystem. The climate of Cambodia is a tropical monsoon climate, in which the rainy season extends from June to November, followed by a dry season from December to May. Rice is generally cultivated in an extensive system with one production cycle per year, except with some varieties (IR variety). Rice is sown in June-July and is harvested in November-January. The paddy yield is rather low and, according to our survey, each producer's yield is between 1 ton and 5 tons per producer. (Average 2.2 ton per producers) The yield level is very dependent on fertilizer and rice variety. In the past several years, many farmers have started to use fertilizers. However some farmers do not know the proper usage and timing for fertilizers. In addition, fertilizers are quite scarce and represent a financial burden to farmers; for which many have to resort to loans.

2.4 Strategies

2.4.1 To Whom Do They Sell?

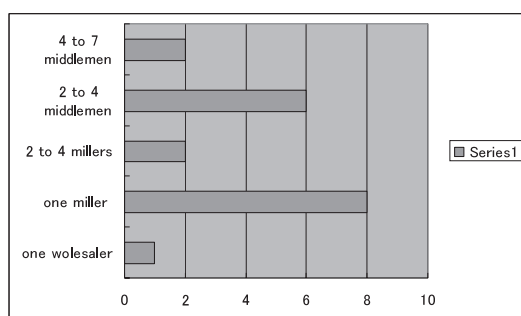
Graph 2 Trading Partners



Graph 2 presents how many interviewees claimed to sell their rice to millers, middlemen (or both), and wholesalers. In order to sell to millers (who offer to pay a higher price than that practiced by middlemen), farmers have to bring the rice to the miller's facilities, which are usually located in the village (except for one respondent, who declared that the miller came to her house to pick up the purchased rice). Thus, villagers who deal only with middlemen declared that they do so when they need money urgently; or because they either face serious problems with goods' transportation or do not trust the millers' scale¹. Some rice

producers sell preferably to millers, but when they urgently need additional capital, they have to resort to middlemen (who are more conveniently accessible than having to take the goods to the miller). Wholesalers pay even a higher price than millers; nevertheless, they only buy processed (milled) rice, and since few villagers have access to mills, only a small share of farmers is able to deal directly with wholesalers.

¹ According to respondents, once the farmer takes his rice to a certain miller, the cost of breaking off the negotiation – having to bring the goods home or to the next miller – is so high that, in the end, he/she would rather sell it for the (sometimes unfairly low) price offered by this miller. The cost of eschewing a middleman would be lower, since many middlemen pass by the village quite frequently.

Graph 3 The Number of Trading

Graph 3 displays how many millers, middlemen and wholesalers interviewees said that they currently deal with. Since some farmers deal with both middlemen and millers, the sum of answers exceeds the total number of respondents. Since a certain miller named “Mr. tree” enjoys some market control, due to the large scale of his operations and his ability to pay farmers in cash, most farmers deal with only him. Because farmers usually resort to middlemen in times of urgent financial need (and many such dealers frequently visit the village) they tend to deal with more than one middleman, although they do keep record of the

middlemen that pay them better - which explains the small incidence of “4 to 7 middlemen” answers.

2.4.2 Why Do They Choose Such Customers?

According to the Village leader (Mr. Khoun), when farmers sell their rice in the Kampong Chhnang market they get better prices than when they deal with middlemen, CEDAC organization or other villagers.

However, as mentioned above, most farmers tend to sell part of surplus paddy to middlemen, because most farmers only sell a small amount and/or do not have access to transportation to the mill/market. Farmers always request (and get) cash payment immediately for sales of paddy because many have to repay debts (including the used hired labor force for transplanting and harvesting and fertilizer) right after sale. In terms of farmers’ incentives, five respondents of the interviewees pointed out that, by acting individually, they can sell the quantity they desire at the price they want. Nevertheless, ten respondents affirmed that they would like to sell their rice in a group. Some of the quoted reasons being that an association would strengthen their bargaining power towards middlemen and facilitate transportation of goods. Mistrust among villagers, low scale of rice production, and lack of knowledge on how to form selling groups were the motives indicated by interviewees for not having, so far, formed a producers’ association.

2.4.3 When Do They Sell Their Products?

All villagers keep their rice, after post-harvest drying, in a barn inside or next to their house. The great majority of interviewees (nine persons) said that they practice speculation, waiting for the price of rice to rise as much as possible before selling to the middlemen, millers or wholesaler. Three farmers said that they were indifferent to such stock-before-selling strategies (that is, they sell their rice whenever they need more money); while only two affirmed that they always had to sell their rice right after harvest because they were constantly in need of money. Some farmers explained the reasons for selling their paddy soon after harvest as 1) shortage of storage, 2) need for cash, 3) storage losses, 4) not much gain even in the lean season.

2.4.4 How Do They Sell Their Products?

There is no marketing group for the simple sugar producers so far, thus, they have to work individually. Therefore, some farmers, who do not have any difficulties for transport to the mill, transport their rice using their own transportation system (motorbike, bicycle, ox-cart). Others who face difficulties, such as old age or lack of access to transportation, usually must wait for middlemen to visit.

2.5 Input

2.5.1 Market information

Most farmers have easy access to information on the price of rice (and paddy rice) paid at the market, which they said they obtained from talks with other villagers (one respondent claimed to be part of a farmers' assembly, which meets regularly), with different millers and middlemen. Nevertheless, the ones dealing with millers also pointed out that such information is of little use for a profit-maximization strategy, given the inflexibility of production costs – high yield seeds are extremely expensive – and millers' unwillingness to negotiate. Farmers dealing with middlemen find it somehow easier to refuse the price offered by a dealer, since the chances of finding a better price among the many other middlemen visiting the village on a regular basis are high.

2.5.2 Capital

From the survey, most villagers seem to face – mostly seasonal – money shortages. They use their money generally for the purchase of fertilizers and paying hired labor – necessary, in most cases, during transplantation and harvesting times. Given the elevated – according to the respondents – value of such expenses, interviewees affirmed that they regularly need to resort to their savings or obtain cash through some other means. According to the survey, the most common of these cash-raising mechanisms is selling part of their stocked rice to the middlemen that are most accessible at the time of financial need (to take the goods to the miller or to seek for the best-paying middleman would take too much time) or, to some extent, borrowing money from their relatives. Only one respondent, the one who takes part in a NGO (CEDAC) scheme to produce organic rice, said that she participates in a common fund composed of rice farmers and financed by their regular contributions. This initiative was proposed by CEDAC with the purpose of providing low-interest loans to the locals. CEDAC also supplied the necessary technical support for its accomplishment. None of the respondents had ever used loans from commercial banks.

2.5.3 Transportation and Storage

Almost all interviewees affirmed that they face no problems whatsoever with transportation of their goods – with one exception, a handicapped farmer who cared about his wife's welfare, since she had to do all transportation tasks by herself. Nevertheless, strong evidence indicates that this might be due to the small scale of their production – all of them use light vehicles to carry their rice to the market, such as bicycle and motorcycle, which can only be used for very limited amounts of rice, or oxcart, because it does not entail any money cost. Two of the respondents even had trucks, but they claimed to rarely use them, since the amount of rice that they sold regularly did not pay for the gasoline spent by such a heavy vehicle. Likewise, all of the respondents claimed not to have any problem with storing their production. However, similarly to the transportation issue, the absence of problems related to storage might be attributed to the low scale of villagers' rice production – small output can be stored in simple, easily built barns.

2.5.4 Clusters and Leadership

As to the leadership, there is no leadership among the rice producers, which becomes one of the important obstacles for producers to form the cluster mentioned by one respondent. Thus, in our study area, there is no farmer group at present because they work individually. Other than CEDAC, an NGO that provides training for farmers to produce organic rice and contractually purchases their future harvests (only one interviewee claimed to

be part of this scheme), there is no trace of associations of rice producers in the village. Therefore, all respondents said that they sell their rice individually, either to middlemen or to millers or both. However, most farmers agreed it is important to form a farmers' group in order to improve their bargaining power towards middlemen and rice millers.

2.5.5 Labor force and Technology

All farmers need a seasonal labor force. When there is enough income to hire labor force, output is increased significantly. Usually, the paddy yield is rather low in our study area, being very dependent on fertilizers and variety of rice planted. According to our interviews, in the past years, most farmers began to use fertilizers. However, since – due to individual selling – information sharing is so precarious, many of the farmers still don't know how to use the fertilizers properly.

2.6 Government/ NGO support for rice

In the Ministry's understanding, some policies favor mainly dealers – middlemen, millers and wholesalers – but not farmers, who, according to officers, are the ones who really lack the market knowledge necessary to improve income generation. The Ministry also added that at least access to private sector lending should become easier for poor villagers, since the Congress recently approved an Act that allows farmers to use their future production as collateral for loans in commercial banks. Assistance from the District government was restrained to the provision of training to increase land productivity, and of limited amounts of high yield seeds. Since the budget for such campaigns is quite scarce, officials train village representatives so that they can pass the knowledge on to their neighbor farmers. Provincial-level officers highlighted their policies to attract foreign direct investment towards the Kampong Chhnang rice production sector (so far, it would have been quite unsuccessful), and to unify the kind of seeds used in local rice production – this would make harvesting, domestic sale and export easier. They also emphasized the scarcity of land and capital, which would be the main limitations to the local rice sector.

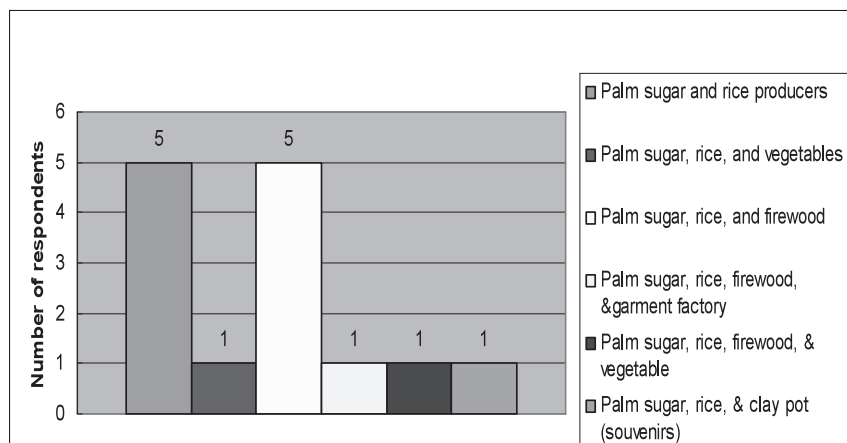
3. Sugar Palm

3.1 Respondents' Profile

According to the village leader, 67 among 199 families produce palm sugar in Tropaing Sbov village. Among 67 families, we interviewed 14 palm sugar producers (four men and ten women). They were in their 40's, 50's, and 60's. In average, there are five persons in each family.

3.2 Pattern of Income Generation of the Respondents

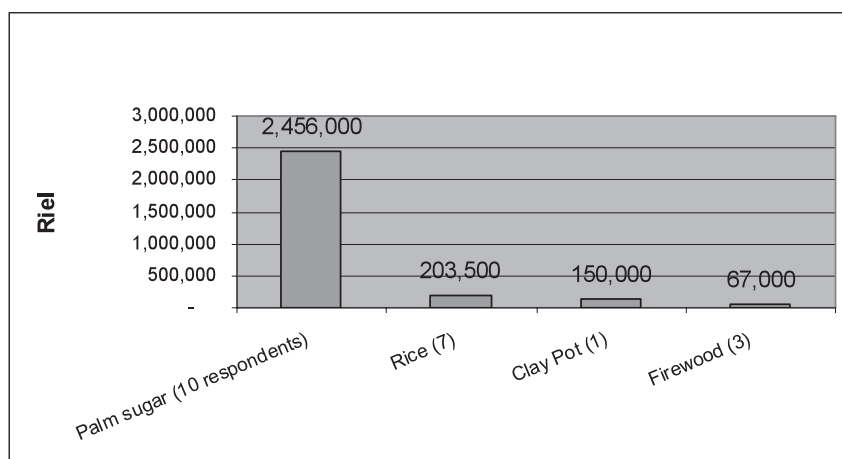
Graph 4 Respondents' occupations



According to the interview, all of them earn a living by producing palm sugar and growing rice. Moreover, some of them have other occupations to get more income. For example, seven of them collect firewood from distant mountainous areas and sell it at provincial markets when they need money for their everyday life. (See Graph 4)

Related to the percentage of their income, most of them got more income from palm sugar (simple starchy palm sugar and dry powder sugar) than from rice. According to the interview, eleven of them got more income from palm sugar than rice and firewood. Two had equal income from rice and palm sugar whereas another had a higher income from rice than from palm sugar. For the last season, on average, they earned around 2,456,000 riels from palm sugar but only around 203,000 riels from rice. And they got only 150,000 riels

Graph 5 Average Income from Various Occupations



from clay pottery (souvenir) and around 67,000 riels from firewood. (See Graph 5)

3.3 Nature of Palm Sugar Activity

Palm sugar is a labor-intensive and time-consuming occupation which lasts about five months from January to May. It involves almost all family members in processing the sugar. Men are palm-tree climbers while women are sugar makers. On average, husbands have nineteen years of experience in climbing palm trees. According to the interview, eleven respondents climbed at least 20 and at most 50 palm trees but they owned palm trees numbering from 5 to 30. This means that they have to rent the palm trees. (On average they rent 19 palm trees.) The rent differs because the producers have good relationships with palm-tree owners, and/or because the palm trees are far away from their houses. The variation of powder sugar production is due to experience or different amounts of palm juice.

The reasons why they chose palm-sugar business are as follows. Firstly, they learn this sugar-processing

method from parents. Secondly, they have low education and no capital. Even though they want to do other businesses, they cannot. Thirdly, they can get money from selling palm sugar to support their rice farm. (Rice is grown in the rainy season while palm sugar is produced in the dry season.). Finally, women interviewees said that they have to take care of their household chores and especially young infants.

3.4 Strategies

3.4.1 To Whom Do They Sell?

All palm-sugar producers sold their products to middlemen. According to the interview, three respondents dealt with one middleman. Four dealt with two middlemen. The other respondents dealt with more than three middlemen. (For those who said that they deal with four and five middlemen, they might get confused by including the middlemen representatives who usually number two or three people). Therefore, there are two or three middlemen who buy sugar at the village.

3.4.2 Why Do They Choose Such Customers (Middlemen)?

The villagers choose to sell simple sugar to the middlemen because of the following reasons. First, they cannot go to the market due to the fact that they are busy with climbing palm trees, processing sugar or taking care of their children and animals, leaving no time to go to the market. Second, they do not have a means of transportation. Third, even though they want to sell in Phnom Penh or other places, they do not have capital and experience to do so.

3.4.3 How Do They Think About Middlemen?

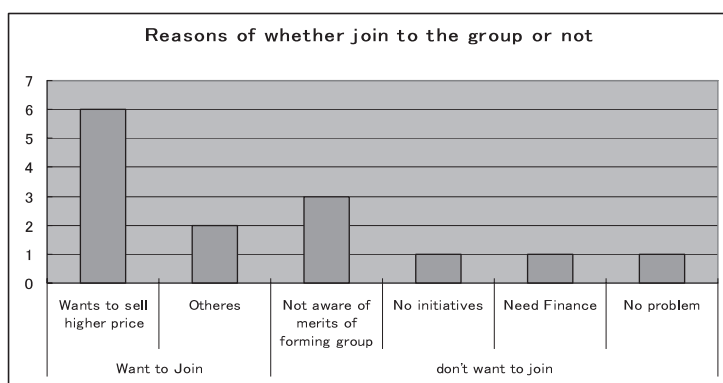
All of them said that there was no problem with the middlemen, but two of them wanted to retail their products at the market. To answer whether they want to change the middlemen or not, they said they do not want to change middleman because they lack experience and are busy. They said that they can sell wholesale to the middleman and get a full amount of payment or even money in advance from middleman. Some even felt sympathetic to the middleman by mentioning that only a few middlemen can get benefits from their business, yet they can sell bad quality sugar to them.

3.4.4 When Do They Sell Their Products?

They sell simple sugar either in the dry season (climbing season) or rainy season. In the dry season, they sell to the middlemen or their clients at the market. In the rainy season, they also sell sugar to the middleman, but they can sell at a higher price than in the dry season. For sugar powder, they sell it weekly to a NGO (DATE) with the fixed price of 3000 Riel per one kilogram.

3.4.5 How Do They Sell Their Products?

There is no marketing group for the simple sugar producers so far, thus, they have to work individually. But there are groups which were formed by a NGO (DATE) for powder sugar producers. However all of them said that there was no problem for them in producing the palm sugar individually because they can sell all the simple sugar products to the middlemen. The middlemen or their representatives just come to the village ready to buy and transport sugar from the village to their warehouse. However the problem, of which they are aware, is that the price is cheap and they cannot keep it for long periods of time-only 3-4 months.

Graph 6 Producers' intention of forming group

Graph 6 shows the reason for joining the group or not. Almost half of respondents wanted to join the group. The main reason is that they can negotiate with the middlemen and can sell for a higher price. In contrast, they do not want to join the groups because of several reasons. For instance, the main reason is that they are not aware of the merits of forming a group. (See Graph 6)

3.4.6 How Do They Attract Customers?

Almost all of them have no strategies for attracting their customers. The reasons why they have no strategies are as follows: they have only one customer; they just allow the customers/ middleman to come and see the sugar; middlemen know which household has good quality sugar; and NGOs can buy at a high price; thus, they just produce as much sugar powder as they can. In contrast, the other respondents have their own strategies. The first follows the customers' quality while the second asks customers directly what kind of sugar they want. The last finds customers and appeals for high quality sugar to the customers.

3.4.7 How Do They Set Their Price?

So far, it seems that there is no order from the middlemen, but all of them said that the middlemen set the price. Half of them said that even though the middlemen set the price, they could keep sugar until next season to sell at a higher price.

3.5 Inputs

3.5.1 Marketing information

Most of them do care about price information, but they get the information from other sellers, middlemen, middlemen's representatives, customers, and market. Only two do not care about the price information because the price is the same. More specifically, three respondents have never compared the price of different middlemen; they just ask the price from relatives or customers. Some of them said that although they compare the price, it is still the same.

When we asked how they get their customers' preferences, they answered that they get customers' preferences from customers directly or NGOs and middlemen about their preferences. However, a few respondents have never learned about customers' preferences. Since they are aware of the information about their products on the market, they get information from different sources; from customers directly or indirectly, market or their neighbors or sellers in the village.

When we asked those who do not get the information how to get the information, they said that it was not important because they just sell to the middleman. If they need information, they would go to the middleman (they trust middlemen). However, when the other middlemen come or compete with the other competitors, this information will become important. Therefore, we can say that they think that the information is important.

3.5.2 Capital

All of them said that there is no problem with capital for commercialization, but three of them wanted money to buy climbing materials. Four borrowed money from relatives. Among the four, one also borrowed from CEDAC's saving group and another got money from her friend. In addition, one borrowed from MFI and another borrowed from a middleman. As a matter of fact, most of them need money because palm sugar producers would prefer to sell sugar in the rainy season in order to get a higher price, but they cannot because of urgent need for money. (See 3.4.4 above)

3.5.3 Transportation

There is a lack of means of transportation. Only four villagers can afford to buy motorcycles. The others are aware that other means of transportation are important, but they cannot buy them. Therefore, it seems that they spend less on transportation or have no expenditure at all. Without means of transportation, they have to sell their products at home, not at the markets where they might get a higher price.

3.5.4 Warehouses

Villagers put simple sugar in big jars under the house and cover it. That is their simple strategy.

3.5.5 Assistance from Government and NGOs

So far all of them receive no assistance from the government, but some receive assistance from NGOs. Those who produce and are about to produce sugar powder can get materials and equipment such as new stoves (an efficient stove that uses less firewood), tubes, trays, flat baskets, and training from a NGO (DATE). In the future, they want higher prices and more markets for palm sugar. Also they need some materials and equipment. They need training/ skills not only related to palm sugar but also related to rice, raising animals and fish. They also need good rice seed.

3.6 Government Support for Palm Sugar

According to our interviews, so far there has been no clear policy about palm sugar production. The Department of Commerce in Kampong Chhnang province just promotes the product by participating in the exhibition of palm sugar, especially packaged sugar, to attract foreigners. Another policy is that they are trying to attract foreign investors with the expectation that they can introduce new technology to the production process and that the price of sugar will become high and stable enough for the local people.

Since the local government has a limited budget, they can only play a role as a facilitator and/or coordinator. Besides just introducing the sugar products to domestic markets, the government works collaboratively with NGOs. Moreover, so far the government has given advice to producers and buyers about not putting any harmful additives in the products.

4. Pottery

4.1 Respondents' profile

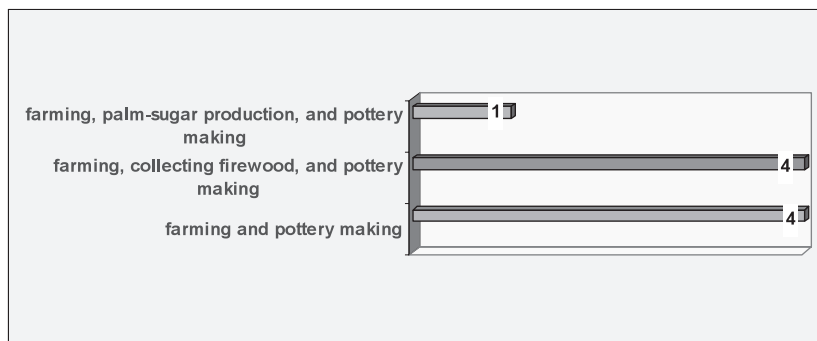
In Trapeoung Sbov village, 9 respondents were interviewed regarding pottery. Through the interviews, we found that there are two groups of pottery makers: ones who produce only traditional, big pots and jars, called clay-pot producers; and those who make only small, clay-made souvenirs. According to our investigation, all the pottery makers share the common characteristics that all of them are female and live on the skills they have. However, among the two groups of pottery makers, there are also some noticeable differences (See Table 1). First, the clay-pot producers are elderly women with an average age of 50 years and they usually have less than two or even no adult male family members. In contrast, souvenir producers are young girls with an average age of 20 years and have two or three male members in their families. In the second case, clay-pot producers inherited their skills of making clay-pots from their parents. The skills usually transfer among generations of clay-pot producers. However, these skills seem not have evolved during intergeneration transferring and are still a primitive activity, characterized by intensive labor and no technological component yet introduced. Different from clay-pot producers, souvenir producers learn the skills by participation in a program, lasting almost three years, introduced by a NGO—Cambodian Craft Cooperation Organization. In production of souvenirs, machines have been applied, so its intensity is not as hard as in the production of clay-pots. Compared with the clay-pots, souvenirs are a newly-developed industry and usually bring higher income for the producers than clay-pots. At the same time, owing to lower interest in clay-pot making, the group of clay-pot producers faces the danger of shrinking, based on the fact that fewer and fewer learn the traditional clay-pot skills.

Table1 Characteristics of Respondents

| Producer Item | Clay-pot producers | Souvenir Producers |
|------------------|--------------------|-----------------------------|
| Average age | 50 years old | 20 years old |
| Technology | Traditional | Advanced to a certain level |
| Income | Lower | Higher |
| External help | No | Support from NGO |

4.2 Pattern of the income generation of respondents

Graph 7 Income Activities



Through the interview, the fact became very clear that only one economic activity hardly support the household and each household has to pick up at least two activities among pottery making, palm sugar producing, farming and firewood collecting. Among the 9 households we have interviewed, four focused on only two activities: farming and

pottery making and the other 5 took up three activities. Even the three activities are a little different (four of them focus on pottery-making, farming and firewood collecting and the other one's main activities are pottery-making, palm-sugar producing and farming.)(See Graph 7)

Farming is the main source of income only in those households that have a surplus amount of rice to sell. Usually, farming is used for the household's consumption, and thus interviewees are not so clear about how much income farming can bring. In the case of palm-sugar, it is one of the main income sources only in households that have young men to climb palm trees, although it is well-known that palm sugar is a lucrative activity. What is striking is that firewood collecting is becoming more and more important as an income generating activity. Therefore it was categorized as one of the main income resources by the interviewees. As far as pottery-making, it is a stable income resource throughout the whole year because it is not affected by the seasons. In the end, these activities are arranged according to the seasons. For example, in rainy seasons, villagers engage in farming rice, but still take up pottery-making. In dry seasons, they produce pottery or collect firewood more because villagers are free from the demands of farming. It is not hard to see that they try to harmonize these activities and make full use of their time to maximize income.

4.3 Nature of Products

Pottery is made of soft clay. Usually producers collect the clay instead of buying and smooth it with labor force. When pottery is made with the clay, it is just a raw product and it needs further baking. The fuel for baking is just wood from the forest nearby. Therefore wood is also another kind of business in this area. However, the free cutting wood creates the potential for a problem for the environment.

Clay-made products can be produced throughout the whole year. However, all respondents seemed to agree that the dry season is the best time for both production and commercialization. Production costs in the rainy season can be higher than in dry season. There is also a bigger market for products in the dry season. Despite these, some of our respondents were still involved in production during the rainy season when they are free from farming.

4.4 Strategies

4.4.1 To Whom Do They Sell?

Generally, they sell clay-made products: selling from ox-cart to their customers, selling to other producers in the same village, and selling to middlemen. Among the nine producers we interviewed, two of them used all these methods, one sold via two ways: to middlemen and to the villagers. Another 6 producers traded their products either with the villagers or the middlemen.

4.4.2 Why Do They Choose such customers?

Selling via ox-cart, usually the producers need to travel across villages and even provinces and it will take them one week every time. Though tough, this enables producers to get a higher price compared with the other two means. However, the fact is that producers feel reluctant to resort to this method ---only 2 among 9 respondents have used or are using this method. Respondents' answers show the constraints that prevent from them selling by ox-cart. Ox-cart is labor intensive, and usually it needs two persons to handle them from the front and the back respectively. In this case, a man is a necessity. However, the truth is that our respondents, especially the clay-pot producers have few adult male members. What's more, the long distance traveling keeps producers away from home for a week or more. Meanwhile, since the pottery makers are all female, they also have to take care of the household. Therefore, it seems unfeasible for the pottery makers to sell by themselves through ox-cart.

As to selling to the villagers in the same village, four respondents in total sold through this way and all of them were clay-pot producers. The reasons why they chose this way are the following: they thought it is a way of helping each other, the price was the same as the price given by middlemen and as one respondent said, in the urgent need of money to sustain living and to buy the necessary materials for production, she has to sell other to villagers only in small amounts.

Compared with the former two methods, selling to middlemen is a more popular means because 8 out of 9 producers sold their products to middlemen. Usually there were two middlemen with whom producers trade. Of the two, the one living in White Elephant village had more deals with producers. The interview with her, named Vat, offers more explanations as to why she could beat the other middleman in trading with the producers. First, she mentioned that she could maintain a good relationship because she provided the producers with easy access to money. The producers could borrow the money or get pay for their products prior to delivery if there was an urgent need of money, while usually producers can only get cash on delivery. And there had never been any delayed payment. Second, she could ensure stability of business for producers. Regardless of the quantity of products, she would buy them all. She had a reputation among producers because she had been dealing with them for around 20 years.

4.4.3 When Do They Sell Their products

Owing to the fact that pottery is not a seasonal product, the commercial activities last the whole year and without seasonal limits. However, in the case of selling through the ox-cart, because it takes almost one week every time, the pottery-makers can resort to this way only in the rainy season when they are not busy with farming activities. As to the other activities, it is unnecessary for them to keep the products for the rainy season in that there are no changes in the reasons as noted by one respondent.

4.4.4 How Do They Sell Their Products?

Although our respondents had been helping each other as mentioned, they did not share any kinds of clusters to sell products. It is true that respondents had tried to bargain the price with the middlemen as a group because there had not been any change with the price. However, they felt discouraged from forming any kind of cluster.

In a word, the marketing strategies for the pottery makers were still in the stage of considering simply how to sell products and besides that there had not been any systematic strategies developed on how to commercialize their products.

4.5 Input

4.5.1 Market information

Unless the pottery makers sell by themselves, which is seasonal and infrequent in some respondents' case, they have few opportunities to access markets. Therefore, the fact is that the middlemen monopolize the market information, such as preferred style and size. The pottery makers just provide the products according to the orders of middlemen. As to the market price of their products, producers have no idea either. The price offered by middlemen is fixed although one middleman said there has been a recent increase in the price at market. The pottery makers, especially the souvenir producers have attempted to bargain with the middleman, however the middlemen remain stubborn on the price. The heavy dependence on the middleman mitigates the producers' bargaining power.

4.5.2 Capital

As mentioned above, pottery making is one of the important income generating activities for the villagers. So in order to sustain their living, they have no choice but to sell the products in a small amounts or sell to other villagers even if they know that this is a short term choice. In addition, some interviewees mentioned that they have to sell the products for money to buy clay or hay--- the basic production material to sustain production. Obviously, because of the lack of capital, they cannot manage the production process in the long term and they have to depend heavily on the middlemen for reliable and stable payment.

4.5.3 Transportation

Usually, near-distance transportation for the pottery makers is not a problem because almost all of the households have ox-carts. However, this does not mean that they have no problems with long-distance traveling. Among the 9 interviewees, there was only one person who had a motor-bike as a means of transportation, while ox-cart was the main and even the only means for transportation for the local pottery makers. However, because ox-cart is totally labor-driven, an individual cannot handle it, especially in long distance travel. Plus, the fragility of the products and the bad condition of roads causes transportation to be one of the factors preventing the local pottery makers from selling products by themselves from ox-cart.

4.5.4 Cluster and Leadership

As to leadership, there is no leadership among the pottery makers, which becomes one of the important obstacles for the pottery makers to form clusters, mentioned by one respondent. Through the interview with the villager leader, we found that, although he has a plan to organize a group among the souvenir producers which will enable them to work and sell products in a group, the clay-pot producers fall into a situation without leadership.

4.5.5 Storage

As to storage, in spite of the fragility of pots, storage for the pottery makers is not a big problem. Interviewees mentioned that they just store the products outdoor under their yards. However, owing to lack of technological means to preserve the products, they usually cannot store the products long especially in the rainy season, which is also one reason preventing them from selling in larger amounts. Moreover, if they attempt to sell at the market by themselves, they will face this storage problem. They then need to rent a space to store their products, which will absolutely increase the cost. They added that because of difficult transportation, the increase in cost and the very low demand, they decided not to go to sell at the market.

4.5.6 labor force

As shown above, all the pottery makers are women and they have to take household responsibility to take care of children besides taking up the business of pottery making. In fact, this prevents them from being more involved in the commercialization activities of pottery.

4.5.7 technology

As mentioned above, few technological components have been involved in the clay-pot making process, excepting souvenirs. Just because of this technology, souvenir producers are able to produce much more products a day than clay-pot producers. This fact had come to the awareness of one of our respondents who was a clay-pot producer. She wondered if there could be similar production machines for clay-pot producers, so that her work could become less difficult and the productivity could be increased.

4.6 External support (influence on and dependence on NGOs)

The technology introduced to the souvenir producers is affiliated to Cambodian Craft Cooperation organization's assistance. The organization trained young women in the skills to make the souvenir for three years and sold the machines to them. NGOs also help sometimes by buying the products at a higher price than that given by middlemen. However, this only happens for the souvenir producers, not clay-pot producers. With all of these supports, commercialization of the products is relatively easier for souvenir producers than for clay-pot producers.

5. Similarities and Differences among Producers of the Three Products

Table 2 Similarities and Differences among Producers of the Three Products

| | | Rice producers | Palm Sugar producers | | Pottery Producers | |
|--|---|---|---|--|---|---|
| | | | Powder sugar | Starchy sugar | Clay-pot | Souvenir |
| Current level of production | | Low; subsistent farming | Limited for new producers | High | Acceptable level | High |
| Income | | | | | | |
| <i>No. of income generating activities</i> | | 2 to 3 | 2 to 4 | 2 to 4 | 2 to 3 | 2 to 3 |
| <i>Perception on current price offered</i> | | Lower than market price | High price | Lower than market price | Lower than market price | Acceptable |
| Commercialization | | | | | | |
| Strategies | <i>Types of buyers</i> | Millers, middlemen, both of them, and wholesalers | DATE (NGO) | Only (2 or 3) middlemen | Middlemen, producers in the same village, and household in other villages or provinces | Middlemen and CCC Org. |
| | <i>Ability to choose buyers</i> | Apparently yes, but actually not | No choice | Apparently yes, but actually not | Apparently yes, but actually not | Apparently yes, but actually not |
| | <i>Most active buyer</i> | Middlemen | DATE | Middleman | Middleman | Middleman |
| | <i>Ability to choose desirable time for selling</i> | Some can but some cannot choose. | Not necessary to choose | Cannot choose | Cannot choose | Not necessary to choose |
| | <i>Mode of selling and Perception</i> | - Sell individually - Majority prefers group selling. | Only sell to DATE | - Sell individually - Almost half of respondents prefer group selling. | - Sell individually - Majority is willing to join a group if exists. | - Sell individually - All are willing to join a group. |
| Inputs | <i>Market info. and producers' perception on its significance</i> | - Get merely info. about price - Not very useful, except for those who deal with middlemen | Information is not important because the price is fixed (3000 riel per kg) | - Get info. about price and customer's preference. - Useful - Many sources of info | - Get info. about style and size, but not price - Get from middlemen | - Get info. about style, size and price - Not very useful |
| | <i>Capital</i> | Not enough => early or small sales | Not enough => money borrowing | Not enough => early sales and money borrowing | Not enough => small or early sales | Not enough |
| | <i>Transportation</i> | No problem | No problem | Lack of vehicle | Problem with long-distant traveling | No problem |
| | <i>Storage</i> | No problem | No problem | Keeping long affects the quality | - Difficult in rainy season - Keeping long affects the quality - Problem if they want to sell at the market | - Keeping long affects the quality. |
| | <i>Producers' cluster</i> | No | A group formed by DATE | No | No | No cluster but under management of CCC Org. |
| | <i>Leadership</i> | No | No | No | No | No |
| | <i>Technology</i> | Primitive | High | Primitive | Primitive | Semi-automatic |
| | <i>Labor force</i> | Not enough | No problem | No problem | Lack of men | No problem |
| NGO's and/or Gov't supports | | Gov't allows the use of future production as collateral for loan at commercial banks | - Receive support only from DATE - Local gov't introduced products to markets. | - Those who are about to produce powder sugar can receive support from DATE. - No gov't support or policy | No support from both NGO and Gov't | - CCC Org. provided training and often bought products with high price. |

Note: No.: Number Info.: Information DATE: Development and Appropriate Technology

Gov't: Government NGO: Non-Governmental Organization

CCC Org.: Cambodian Craft Cooperation Organization

Source: Author

6. Conclusions

The research was conducted with the objective of exploring the underlying problems hindering the commercialization, which eventually leads to low income, of local producers in Tropaing Sbov village. At last, it became clear to us that whether or not producers have profitable sales depends on their trading strategies and inputs. At a deeper level, what kind of strategy each group of producers adopted is the result of their available input. Thus, we cannot underestimate the complexity of commercialization of various products. However, our interviewees did share some similar characteristics in their commercialization. Below, we will present our conclusions for this research based on the similarities and differences among producers. Although it is not representative of commercialization pattern in rural areas of Cambodia, we hope it can shed some light to the complex nature of rural trading.

- There seems to be a mutual supporting relationship between incomes from various products in each of our interviewed household. None of the producers was involved with merely one kind of product. Although they might not be aware of this fact, this diversity prevents them from seeing how much they earn from each individual product. They used income from one product (i.e. clay-pot) to sustain another product (i.e. buying fertilizer for rice, which is just enough for household consumption). Therefore, their decision on commercialization of one product is partly affected by the need of money to produce another product.
- The first commonality among our target producers is that their access to market information is limited. Very often, middlemen just provided them with information about customers' preference but not market price. They have no idea of who their competitor is and how much the products are sold for at the market. This information shortage and the act of scattered selling reduce their bargaining power, which puts them at a disadvantaged position in their trading.
- The second commonality, and the most influential factor in commercialization of the three products in our research, is 'capital'. All of our producers suffered from the lack of capital, which led to early or small sales of their products. This urgent sale may increase the production cost (in the case of clay pots) or lower the price (in the case of rice and palm sugar). Therefore, the first priority assistance is to deal with this capital shortage.
- The third commonality is "inexistence of clusters." Except the group of powder-sugar producers, there is no cluster found among the interviewed producers. They produced and sold individually. This scattered selling reduces their bargaining power as well as lowers their price.
- "No leadership" is considered as the fourth commonality among the producers. Although "leadership" was not previously recognized in our research framework, after the interviews we found out that it plays a very important role in the commercialization of local products in our research. However, we could not find any leadership among our target producers even with the groups who have been supported by NGOs. Despite the fact that, during the interviews, more than half of the respondents expressed their willingness to join the cluster and their understanding about its importance for commercialization, none of them wanted to take the lead in cluster formation. However, they seemed to agree that the village chief should initiate the idea. The village chief thus is the most suitable person to lead the cluster formation, and local authorities should assist the village chief by providing information about successful clusters from elsewhere and how they are formed. Thus, leadership indirectly, but strongly, influences the commercialization of local producers.
- Because of their nature, the three products do not necessarily encounter the same problems. Firstly, storage is not a constraint for rice and powder sugar, but it is one of the factors that foster early or small sales of starchy

sugar and pottery products. For these two kinds of product, the longer they are kept, the lower the quality decreases. Therefore, the strategic supports for the three products should take into account these differences.

- The second difference is their dependence on “labor force.” Similar to leadership, labor force was not included in our framework for investigation, but it appeared to us during the interviews. Although it is one of the necessary inputs for every kind of production, it is not a problem for the palm sugar producers in our research, but it is a big problem for rice and pottery producers. Because of labor shortage, the rice yield is reduced and the clay-pot producers are restrained from going to sell through ox-cart, which is the trading means that can provide the highest income.
- In the overall picture, if everything is left to the market, producers in the rural areas are most likely to be the ones who suffer the most when it comes to trading their products. According to Table 2 above, only 2 groups of producers who have received support from NGOs can get a high price and relatively high technology. The other groups just depend on the price offered by middlemen and their primitive mode of production. Hence, in areas where rural infrastructures – both soft and hard – are not yet developed, for example our research site, external intervention from NGOs or local government is badly needed.
- However in relation to the external support, we conclude that unless they have strong market demand, local products are easily neglected by government and/or NGOs. In the case of our research, starchy sugar and clay pots receive no NGO or government support because they are not targets for export. Producers have to find their own way to market their products. As abovementioned, because markets in rural areas are not yet efficient, the government should not totally depend on it. Under a section for recommendations, we would like to propose our suggestions to the relevant groups in order to improve the commercialization of target producers.

7. Recommendations

Since the research was conducted on a three-product basis, it is only natural that recommendations come categorized into the same three activities.

For rice producers, it is suggested that they compose an association, supported by a fund from members' contribution. While the association's purpose would be to facilitate the transportation of their rice and strengthen members' bargaining power towards dealers (by selling their output as a group), the fund would provide low-cost capital for members in urgent need, and financing for the improvement of a village's infrastructure and farmers' input.

Nevertheless, it is advised that farmers continue to store their rice individually, since – given the widespread suspicion among villagers - rice reserves can be better administered if decentralized. Through such association, villagers are encouraged to engage in the production of high yield and high quality rice – buying as a group the expensive seeds. In the present analysis' perception, the only individual capable of gathering villagers' trust for such an enterprise (association and fund) would be the village leader or someone directly appointed by him.

Suggestions for palm sugar production also highlight the importance of producers to organize themselves in an association. However, since there already exists a successful group within this industry (the group for powder sugar production), such a task could consist merely of this group expanding its functions and its number of members. In the palm sugar sector, an association is the most efficient mechanism for local producers to acquire and disseminate market information; have access to low-cost capital; make more efficient use of the means of

transportation they possess; and optimize the use of the labor force available in the village.

Concerning palm sugar producers' marketing strategies, our group recommends that in the dry season (when market price for this good is extraordinarily high) they should sell all the sugar stock they possess. Even if each producer only owns very small amounts of it, the total quantity for the association should be considerable, and thus finding a dealer to negotiate with would not be problematic. In order to seek maximization of the price obtained for their goods, sugar producers are suggested to establish contact with as many middlemen as possible.

Under the light of the success (assessed by the current research) of the local powder sugar confection industry, sugar palm producers that thus far do not take part in such initiatives are encouraged to undertake it, if there is market demand for additional supply.

Finally, villagers are recommended to use the new type of oven, recently introduced by the local NGO (DATE), which consumes much less firewood.

For the clay pot sector, at the national level, it is advised that the National Assembly for Craftsmanship have a strategic plan for traditional and souvenir producers. These artisans' invaluable skills are in danger of extinction if no immediate action is taken to preserve them. In addition, if income generation of pottery makers is to be improved, government should introduce technologies to increase productivity and assist cluster formation by, for example, promoting successful cases.

Through a recommended association, local producers would strengthen their bargaining power and expand market access. This would also enable a labor division within, with, for example, some members engaging in production and other members focusing on the commercialization of goods. The village leader should take the lead in forming such clusters, following successful cases presented by government offices.

Government could also play a role as facilitator between commercial banks and clay pot associations. This would not only provide a safety net for their members, but also allow further expansions in their production.

Perceptions of various actors toward schooling in Lower-Secondary school Level

-A case of Rolea B'ier in Kampong Chhnang Province, Cambodia-

1. Introduction
 2. Conceptual framework
 3. Methodology
 4. Results
 5. Discussion
 6. Conclusion
 7. Implication
- Acknowledgement
References

Group Advisors

Prof. Yuto Kitamura (GSID)

Prof. Norng Lina (RUPP)

Assistant

Shunsuke Kambayashi (GSID)

Written by:

Im Keun **
Keiichi Hashimoto
Chea Parath

Takayo Ogisu *
Nao Haruyama
Kensuke Saito

Ryosuke Kawabe
Hitomi Isobe

**Group Leader *Sub-leader

1. Introduction

Since “Education for All (EFA)” was set as an international goal in the Jomtien conference, education sectors in the developing countries have made great improvements. Especially, access to primary level education in many of these countries has increased dramatically (UNESCO, 2007). However, there are still many issues such as dropping out and transition of students at the lower secondary school level. Cambodia is not an exception—the country has been making efforts to increase access for primary education, and the net enrollment rate of some provinces has improved. However, the challenge for universal basic education, especially for the lower-secondary level, is still on track in many of the parts of the country.

We have conducted sector analysis on education in Kampong Chhnang province using statistical data from the provincial education office, and found that a bottleneck existed in the secondary education level while access and efficiency was relatively high in the primary education level. This analysis indicated that a low transition rate, high dropping out rate, and repetition rate in lower secondary level is considered significant in Rolea Pa-ir district. Among them, the dropping out rate remarkably rose up at grade 6 and lower secondary level. Based on these findings, we tried to explore why the issue of schooling, especially dropping out, still exists in Trea Khang Cheung village, Srae-Thmey commune, Rolea Pa-ir district which we set as our research site.

2. Conceptual Framework

2.1.1 Factors affecting dropping out for children and parents

There are many empirical studies conducted to find the reasons of dropping out, focusing on the reasons that children and parents perceive. According to Arunatilake (2006), for children, ability and educational attainment affect school participation. Using Zambia as an example, Jensen & Nielsen (1997) found out that 34% of children raised failure of schooling as the reason for dropping out. From these, academic reasons would be considered as the most important reason for children. In addition to that, it is remarkable that none of children answered that work was the reason for leaving school in Zambia. Against that, Kadzamira (2003) mentioned the three significant reasons for dropping out such as direct cost, informal fees and child work.

Cockburn (2000) and Ersado (2004) claim that poverty and income opportunities influence the decision making of the parents whether to send their children to school or to work. Admassie (2003) explained that reasons connected to the direct cost of schooling, distance to school and expenses on school supplies could lead to low school enrolment significantly as well. Also, parents tend to be concerned with the reasons connected directly to children, which are children’s school-experience-factors such as repetition, school performance, and behavior (Rumberger, 1995). Hence, parents seem to consider economic factors and the children’s situation in school as important reasons.

In the Cambodian context, World Bank (2003) mentioned the significance of parents’ understanding and participation toward lower secondary education. According to the Cambodia child labor survey (2002), the reasons for children’s being out of school are due to the following: the lack of motivation of teachers; the poverty of the families that see work as a priority over the education of their children; and the attitudes of parents. Another study mentioned that children’s low educational aspiration affects their low attendance and promotion especially girls education (Keng, 2006). In addition to those mentioned above, Shimizu (1997) notified several more reasons

such as the sickness of family members (especially fathers), children's difficulties at school, including human relationships and academic difficulties, and attendance and quality of the teachers.

In summary, among those studies, we came up these 10 choices, and they are; 1) Direct cost of schooling, 2) Problems within school, 3) Distance to school, 4) Children's working, 5) Low value of education, 6) Children's difficulties at school, 7) Children do not want to study, 8) Influence of neighbors, 9) Health issue in family, and 10) Low income.

2.1.2 The Importance of education

Substantial studies have been conducted to understand the importance of education to both individual families and the whole country. At an individual level, it contributes to increases in income, knowledge and skills, getting high social status, and becoming good citizens. At national level, it fosters economic growth, high-skilled labor force and healthy citizens, and national unity or integration. However, this literature is intended to review the benefits of education at an individual level.

First of all, more investment in education contributes to increases in household income. This argument stems from human capital theory by taking the rate of return of education into account. Becker (1964) states that parents decide to invest more in education based on their rational calculation that investment in further education can help their children to get a better job or earn higher income in the future.

Education does not only provide monetary benefits, but also non-monetary ones. Haveman & Wolfe (1984) mentioned that schooling contributes to more access to information, health, efficiency in consumption, and crime reduction. It is also evident that education leads to political participation and the enhancement of civic value (Torney-Purta & Schwille, 1986). Blatti and Falk (2002) and Schuller et al. (2002) claims that education helps promote a sense of tolerance and builds social capital by developing trust, extending and reconstructing social networks, and reinforcing behavior and attitudes. Therefore, children who get more education, especially beyond primary education, can acquire several important skills and knowledge. Not only the skills and knowledge necessary for the globalized knowledge economy, but also skills which help them to make decisions in life (de Walque, 2004).

Social status is also perceived as something gained from education. However, social status is also embedded in occupation. Fershtman et al. (1996) assumes humans are "social animals" and examines implications of the pursuit of social status in addition to financial rewards from their occupation. They find that people who are rich but have limited ability would like to gain social status through acquiring more schooling.

2.2 Research purpose/subject

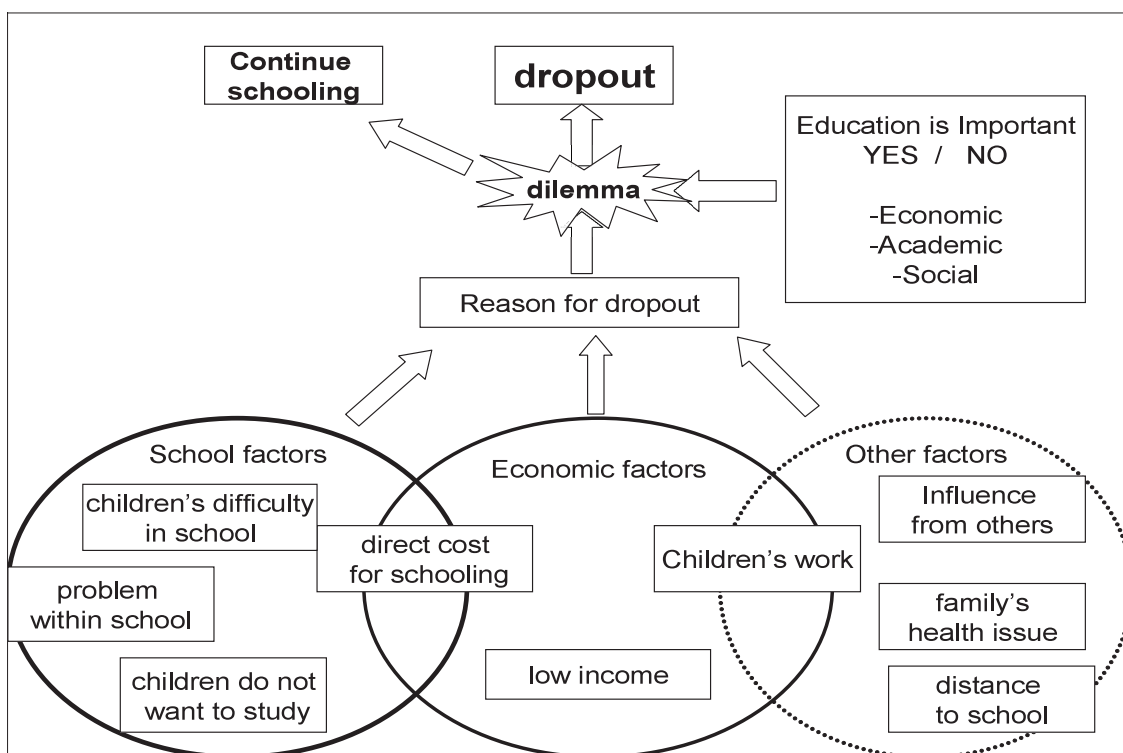
Although many studies conducted research about dropping out, most of the research sees children and parents within the same category. It means that just a few studies are concerned with the difference between children who are in school and out of school, and among the parents of those two groups of children. And Hernandez and Nesman (2004) showed the rankings of importance of dropout factors across parents, community leaders and school representatives. The common high factor was student motivation, and they chose it within the top 3. Parents and community leader saw a lack of supportive parents as having the most influence on children's dropping out whereas school representatives chose lack of supportive teachers. Also, according to Russel (1983), the reasons are often mutually interacting and deeply connected to each other. We will focus more deeply on those different perceptions as well as those of teachers' and other actors. In addition to that, in the Cambodian context,

monks play an important role in Education, so we also add monks to “Other Groups”.

Therefore, the purpose of our research is to explore the complexities of decisions on children’s schooling. Based on the sector analysis on basic education in Kampong Chhnang and reviews of the related literature mentioned above, the research question of this study was set: what are the perceptions among different actors toward schooling?

Two related questions were set in order to explore the perceptions from various actors including children, parents, teachers, commune/village leaders, and district/provincial/ministry officials: (i) what are the reasons among different actors for dropping out?; and (ii) how do actors perceive about the importance of education? These two related questions describe our research framework, which is shown below (Figure 1).

Figure1 Research framework



Source: Authors

3. Target Overview

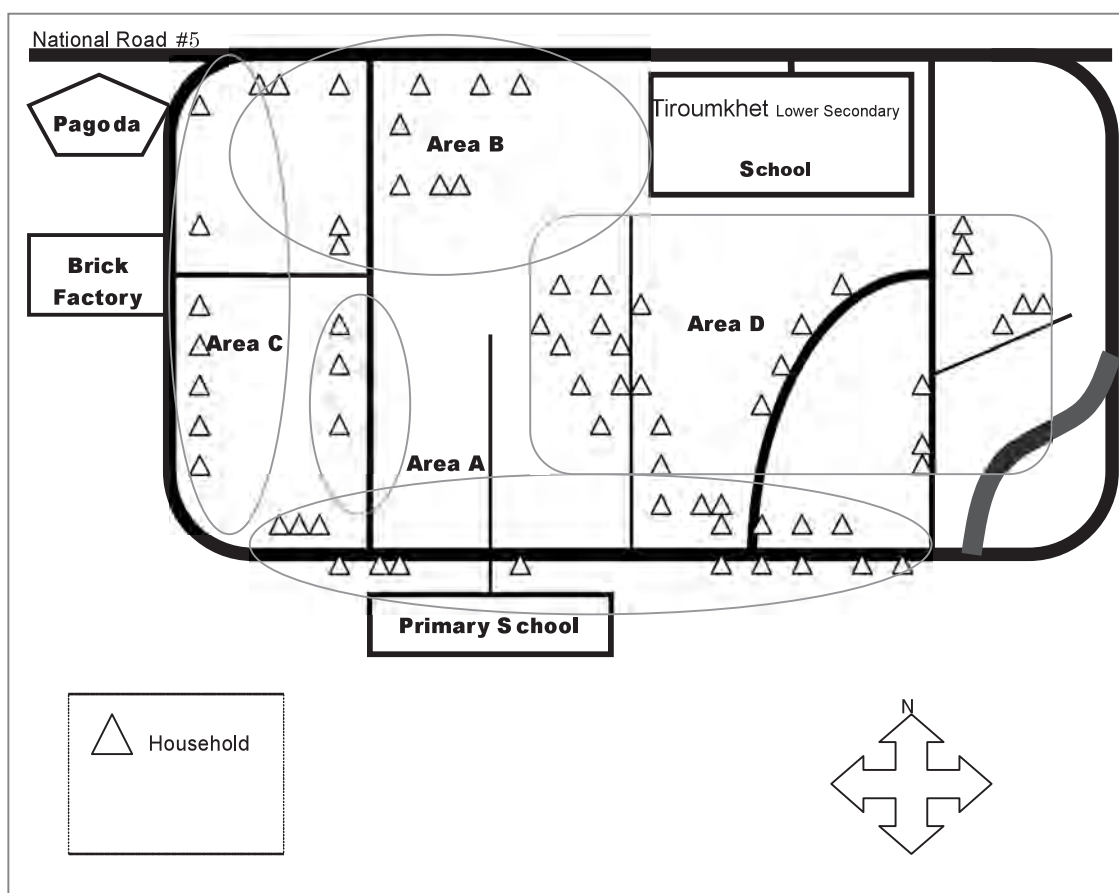
3.1 Introduction of Trea Khang Tbong village

The Srae-Thmei commune’s area is 26,900 ha, and 449.5 ha is used as a residential area. There are four villages in the Srae-Thmey commune and there are 2,200 households in total. Total population is 10,080 including 5,368 females. More than 90 percent of the population engages in agriculture. In Trea Khang Cheung village, in which our group conducted this research, there are 258 households and the total population is 1,193 including 623 females.

According to the geographical features, we divided the village into four areas: area A, B, C, and D (See the map of the village below). Area A is at the center of this village, where there is a primary school. Area B is a somewhat mountainous area. Most of the people who were in this area live by stone collecting. There is a Pagoda in area B. Area C is facing the main road which connects Kampong Chhnang and Siem Reap to the village and there is a lower secondary school (Tiroumkhet Lower Secondary School). In this area, people are enjoying the geographical benefits to engage in selling, which enable them to earn a monetary income. People living in this area are richer than people in the other areas.

In Rolea Pair district, there are four Lower Secondary Schools (LSS) at the time we conducted interviews. Children who are living in the Trea Khang Tbong village belong to either of the two LSSs: Kiri Sovannavong lower secondary school, which was built in 2006 with the support from the World Bank, and Tiroumkhet Lower Secondary School, which was built around 1985. Through the interviews however, we found out that most of the children in the village mainly go to the latter one.

Figure2 Map of Trea Khang Cheung Village



Source: Authors

3.2 Participants

Parents and children were divided into three groups depending on the schooling situation of the children. As for children, group 1(C1) are those who dropped out from lower secondary school (LSS); group 2(C2) are those who are currently studying in LSS; and group 3(C3) are those who has graduated primary school but did not enter LSS and are currently out of school. Parents (P1, P2& P3) respond to each of the children’s groups. We also interviewed school teachers at LSS, and the PTA leader, village leader, commune leader, Monks, and the school principal. The tables below indicate the basic information about the participants.

Table 1 Basic information about the participants

| Targets | No. of Interviewees | Sex | | Average age |
|--|---------------------|------|--------|-------------|
| | | Male | Female | |
| P1 (parents of C1) | 14 | 2 | 12 | 45 |
| P2 (parents of C2) | 9 | 5 | 4 | 46 |
| P3 (parents of C3) | 4 | 0 | 4 | 45 |
| C1 (children who dropping out from LSS) | 9 | 6 | 3 | 19.7 |
| C2 (children who go to LSS) | 11 | 5 | 6 | 15.6 |
| C3 (children who did not enter LSS) | 6 | 2 | 4 | 18.2 |
| Teachers | 11 | 8 | 3 | 39.8 |
| Others (village/commune/PTA leader etc.) | 6 | 6 | 0 | 50.7 |
| Total | 70 | 34 | 36 | |

Source: Authors

4. Methodology

4.1 Data collection

As for data collection, we conducted a semi-structured interview (combination of questionnaire and interview) in order to understand the various actors’ understanding about dropping out as well as some deeper perception towards schooling. Also, the latest Statistical data (number of students, dropping out rate, promotion rate, etc.) gathered from MoEYS, the Provincial office, District office, and schools were used in order to understand the current situation about the target area.

4.2 Contents of interview

We used three sets of questionnaires for parents and children depending on which group they belong to, and one set of questionnaires for teachers, and one set for “others” such as the village leader, PTA leader, commune leader, school principal, and monks. The questions consist of two sections. The first section consists of the basic and

general information of the interviewee such as age, income level, occupation, and number of family members, and the second section consists of questions regarding the schooling of the children. For children that are out of school and those parents, questions mainly focus on the reasons for stopping schooling (we let them choose one main reason), followed by the deeper questions related to the reasons they have chosen. We also mainly include in the interviews of Parents and children who are still at Lower-secondary school about their value of education. For teachers and others, we first ask what they think as the main issue of LSS education in the area, and then examine their deeper perceptions towards the issue they have chosen. Further, questions that ask about their ideas and actions for improving the situation are included.

4.3 Data Analysis

As for the data analysis procedure, quantitative analysis was made first to grab the whole picture of each actors' basic information, and the overall tendency of each group. After that, qualitative analysis was made using the descriptive part of the interview results. Firstly, we put all the answers into digital data, and categorized what each actor has raised as the main reason for children's dropping out. Then, several comparisons were made at different levels. Firstly, based on that categorization, we compared those reasons and the deeper perception towards schooling between each actor in order to investigate whether the reasons among various actors are different or not. Secondly, a comparison was made within those who have raised the same reason in order to see whether disparity occurs regarding their deeper perception. Thirdly, we compared the perception between the same group of parents and children, and also between different groups of children in order to understand each group in more detail.

5. Discussion

5.1 General comparisons

5.1.1 Area

Table 2 Area distribution

| | G1 | G2 | G3 | Total |
|--------|----|----|----|-------|
| Area A | 4 | 11 | 1 | 16 |
| Area B | 9 | 4 | 2 | 15 |
| Area C | 1 | 5 | 2 | 8 |
| Area D | 5 | 0 | 3 | 8 |
| Voc. | 2 | 0 | 1 | 3 |
| Total | 21 | 20 | 9 | 50 |

Source: Authors

Table 3 Parents' occupation in Area B and C

| | Area B | Area C |
|--------------------|--------|--------|
| Farming | 2 | 2 |
| Housework | 1 | 1 |
| Palm tree climbing | 1 | 0 |
| Stone Collecting | 3 | 0 |
| Trader | 1 | 1 |
| Pottery | 2 | 0 |
| Teacher | 0 | 2 |
| Others | 0 | 1 |

Source: Authors

As was explained before, area B is the area in the mountains. Many people engaged in stone collecting and pottery. Meanwhile, we can see some white collar jobs in Area C such as teachers and volunteers in the newspaper company. We may not see the difference clearly, but there is a disparity between areas. Also, there is a secondary school in Area C, but even from area B, the distance to school is not really big problem.

In area B, we could get interviewees from 9 people in group 1, 4 people in group 2, 2 people in group 3. Many of them are from group one, who is a dropout or his/her child is a dropout. In area C, there was only 1 from group 1, 5 from group 2, and 2 from group 3.

We could find almost half of the interviewees in group 1 from Area B, the mountainous area. On the contrary, in area C, the majority of the people are in group 2, where children can still continue schooling. Our interviewees are limited so it might not be always correct, but geographically, there exists a gap between areas, mainly it would be economical. However, we could see that it also affects their schooling.

5.1.2 Comparison of Basic Information (P1, P2, P3)

Income

The majority of Parents in Group 1 and Group 3 earn less than 1\$ (4000Riels) per day. On the other hand, most of the Parents in Group 2 who can earn (8000-12000 Riels per day) are better-off than the two former groups. Thus, parents in group2 have more money to send and keep their children in Lower-secondary schools. We can conclude that household income level also enables them to invest more in their children's education.

Occupation

We can see the significant difference in occupations between Parents Group 2, and Parents Group 1 and Group 3. The reason is that no one in Parents Group 2 works as a stone collector which is one of the most common jobs found in Parents Group 1 and Group 3. The majority of Parents Group2 has different kinds of jobs ranging from farming, trading, and teaching. Interestingly, one respondent in Group2 even has time to work as a volunteer for a newspaper. Occupation is also related to household level of incomes. However, we cannot conclude that types of occupation affect children's education as one respondent in Group 3 whose job is as a teacher at a primary school has a child who doesn't continue studying at LSS.

Academic background

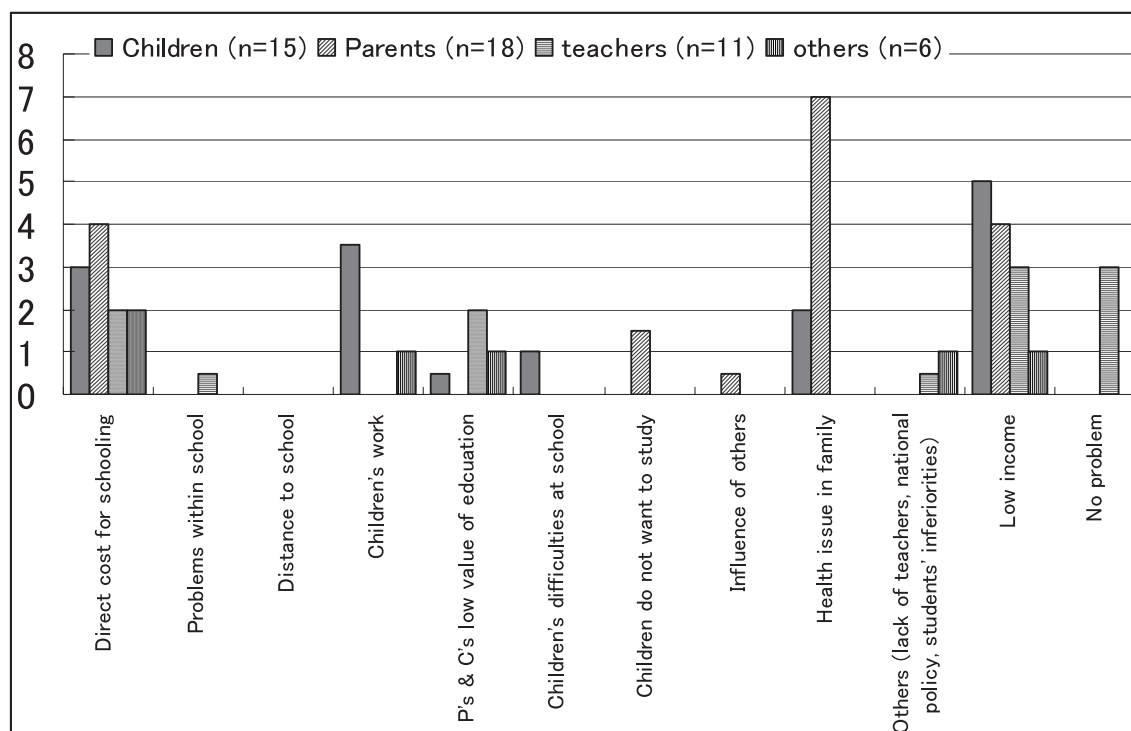
In regards to parents' academic background, we found out that Parents in Group 1 and Group 3 had an lower educational level than Parents in Group 2. The majority of Parents in group 1 and group 3 did not complete primary school while some parents in group 2 have experienced and finished Lower-secondary school level.

To conclude, our findings are consistent with several previous studies which claim that there is a relationship between children's education and family background, including household income level, parents' occupation and education.

5.2 Reason for stop schooling

5.2.1 Overview of reasons chosen by each actor

Figure 3 Reasons for Dropping out for Each Actor



Source: Authors

Most of the Parents Group1 (n=14) mentioned health issues in the family as the root cause for their children's dropping out. Besides, there are 4 cases in which dropping out derive from low income. Moreover, we have encountered 3 cases in which direct cost of schooling was the reason for dropping out. The majority of Parents Group 3 (n=4) raised the health issues in the family as the reason for dropping out. Other reasons are low income and influence from others.

Children in group 1 (n=9) find low income within the family and the direct costs for schooling as their main reason for dropping out. Among the children we have interviewed in group 3 (n=6), 3 of them reveal that they need to work to support the family as their family needs more help and income to support daily expense. Yet, among them, some work in order to support the other siblings in the family to have a chance getting education at school. One daughter says that since she works, her younger siblings can afford to go to school and get education like other children. Also, 2 choose the main reason as low income condition in the family and 1 mentions health issues in the family leading to economic reason in her family and she had to stop schooling.

Teachers (n=11) perceive that the poor economic situation of households is the biggest reason for children's dropping out. Low income and no problem got 3 points each at first glance, but thinking about economical aspect, direct cost for schooling and low income can be combined as poor economic situation of households. Combined It got 5 points in total, and became the main reason for children's dropping out.

Other stakeholders (n=6) perceived the reasons for dropping out differently. It turned out that the economic problem of the household seems to be one of the key issues that all the actors commonly realize as the reason for dropping out. On the other hand, we can see that not many actors raise school-related issues including the infrastructure, facility and teachers.

Overall, we can see the common reason raised by all actors is low income. However, there are differences among these actors and within actor groups. Thus, we will explain detailed analysis on these differences in the subsequent section.

5.2.2 Inter-related complexities of the reasons

There exists an inter-relationship among the various reasons for dropping out. We divide the reasons for dropping out into two levels, the root causes and direct causes. Firstly, the root causes are the health issue and low income. We can see that the two root causes are interrelated to each other; this means that the emergence of health problems in the family perpetuates the economic difficulty in poor households. One mother said, “my family was poor, but especially after my husband died, the children had to work instead of him to support my family, and children had to drop out of schooling.”

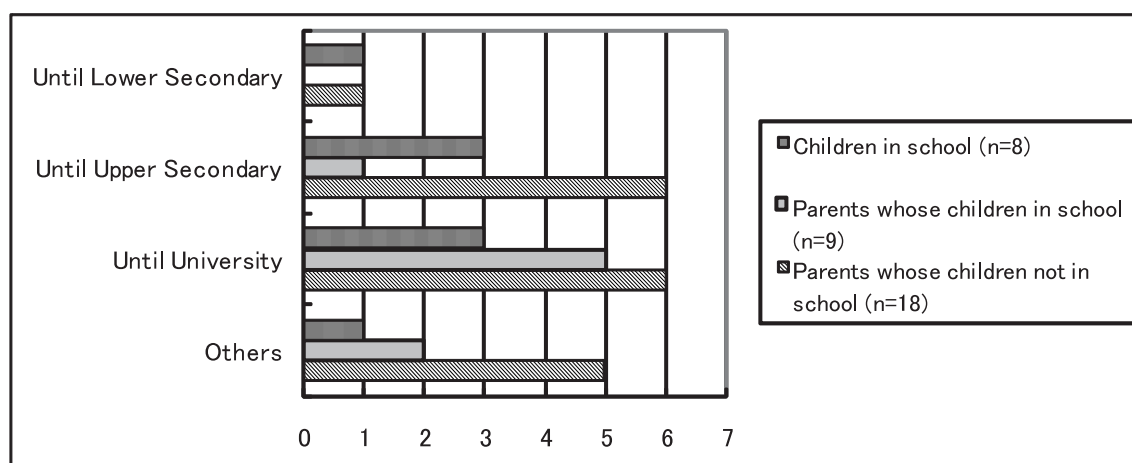
Second, direct causes for dropping out which stem from these root causes are children’s work and the inability to support the cost of schooling. Children eventually stop schooling through the process linking root causes and direct causes. Some children answered that they dropped out because they were working; however, when we interviewed more, most of them were working because they cared about the economic situation of their households.

5.3 Importance of Education

According to the responses from interviewees, all the interviewees even those people who are currently not in school answered that education is important. However, there exist some disparities in deeper perceptions among actors and also individuals. One big disparity is that some stakeholders answered parents and children don’t put a high enough value on education. In this chapter, we will focus on their deeper perceptions and explore how parents and children perceive education and what influenced them to make these disparities.

Disparity in value of education

When we conducted the interview with teachers, education officers, and key person in the village such as village leader and PTA leader, some answered that parents and children especially those in poor household don’t put a high value on education, and this may lead them to choose to stop schooling. There is a huge disparity between them and other interviewees. As it is mentioned, even those people who are not in school also think education is important. Actually, almost all the parents want to give their children more education opportunities, at least upper secondary level (see the graph below). More than half of them answered that they wanted to send children to school until university or as high as possible. Yet in reality, they may not be able to apply their ideal perspective because of the difficulty of survival. Thus we can see a dilemma between current economic situation and future benefit from education.

Figure 4 Desirable education level

Source: Authors

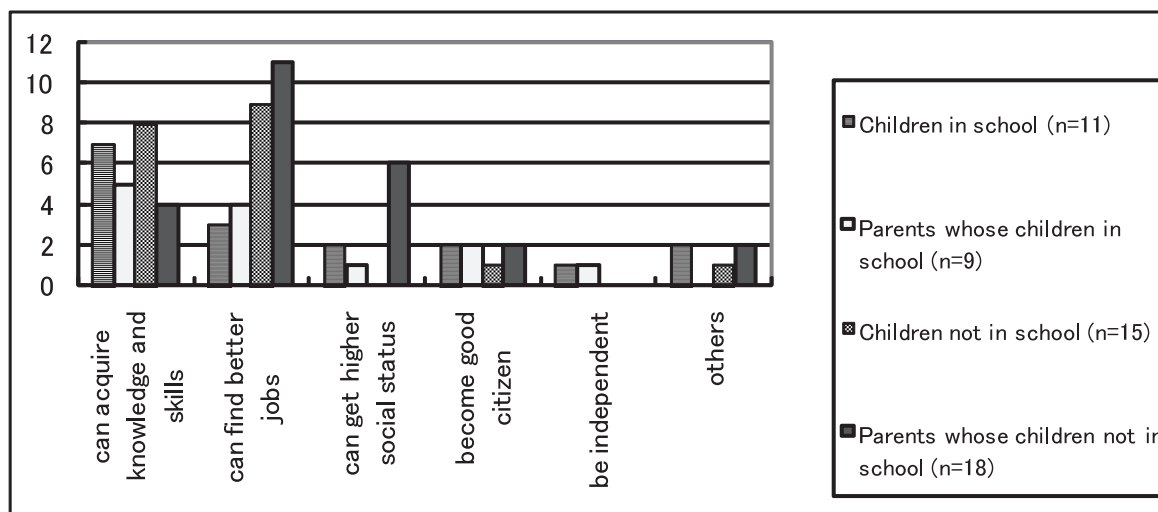
Desirable education level

From this figure, we can see clear disparities about their desired education level. Most of the parents whose children are in school hope to send children until university or as high as possible. Also, many parents whose children are out of school also want to send them beyond than upper secondary level. They try to give children the most educational opportunity. On the contrary, children who are in school think differently. All children who are in school except one girl wanted to go to the next level of education, but those who do not hope to go to university mentioned the economic difficulties in the family and that they would work after lower or upper secondary school. The girl said she wanted to work immediately after graduating from lower secondary level because she wanted to help her family. One boy even explained that he wanted to continue to university level, but it is impossible because of the economic difficulty. Children tend to perceive their economic situation more severely. Here we can also see the dilemma between their reality and ideal. All the children and parents perceive education as important, but economic difficulties enormously affect their desirable education level.

Purpose of further education

What do they expect from education? From this question we can explore their perception towards schooling and reason to continue schooling.

Figure 5 Purpose of further education



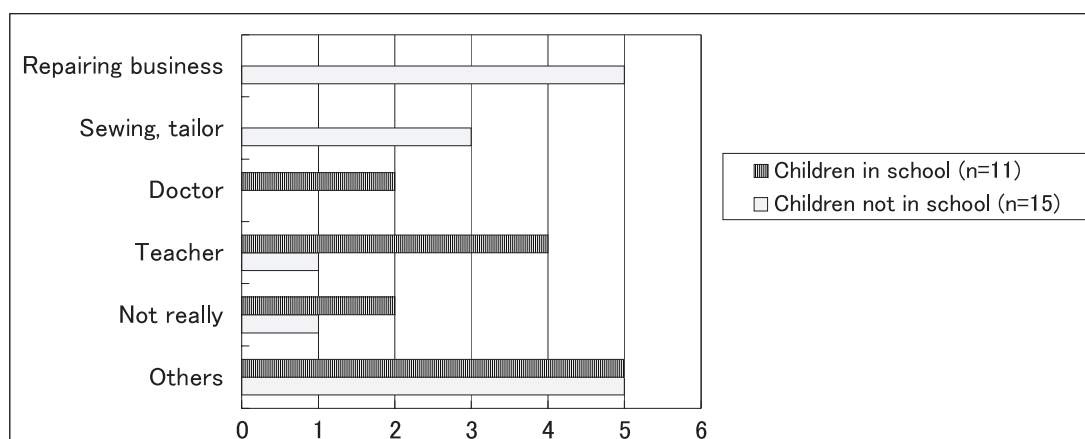
Source: Authors

Note: Multiple answers allowed

In the majority, they think two different answers for their purposes. They are; to acquire knowledge and skills, and to find better jobs in the future. These two ideas were chosen by both groups whether they are in school or are not in school. Those who are in school put a priority on education to acquire more knowledge and skills, yet others think that to find good jobs is more important. It means that those who are not in school consider the rate of return of education as the main determinant for making the decision for investing in education. For them, education is the tool to get benefits in the future. Some of the interviewees told us that there was not many job opportunities in the village, so we could guess because of this lack job opportunity, they would not have the incentive to continue education. When we look at children and parents, parents are more conscious about long-term future plans. Those parents whose children are in school also think education enables children to find good jobs, as well as to broaden knowledge and skills. Even those parents whose children are not in school also want their children to receive general (academic) education to become white-collar workers such as teachers, doctors, and government officials. Many of those parents especially in Parents 3 mentioned that they want to send children back to school. On the contrary, children have different idea. They, especially those children who are out of school, tend to think more in short-term future plans. When we look at their future plans, we can see this tendency more clearly.

Future Plan

While many parents answered that they want to give children as much education opportunity as possible, children tend to think differently. Even within children, this different perspective also varies. Here, we will explore this tendency from their future plans.

Figure 6 Future plan for children

Source: Authors

Note: Multiple answers allowed

There is an obvious difference between the groups. Children who are in school tend to choose white collar jobs such as doctor and teacher. Whereas, children who are not in school choose the repairing business, and sewing, others, farmer, and stone collecting. They chose jobs which are more related to their daily life. Some of them told us that it is hard to have hope for the future, so they work with those jobs they can. Among those children who are not in school, only one mentioned that they wanted to go back to school in their future plans. There was one more respondent, who wanted to return, but in reality, he did not raise this as a concrete future plan; he just dreamed of going back. This means most of them do not actually plan to go back to secondary school. The reasons why they do not want to are, mostly that they hesitate now that they are now get older, or they think vocational skills are more important to allow them to get jobs immediately (see the table below). Actually, some said they want to go to vocational school instead of going back to lower secondary school. They cannot think of their future in a long-term plan. Children's future plans are influenced heavily whether they are in school or not. This is very much different from their parents' ideas.

Table 4 Do you want to go back to school? (C1, C3)

| | |
|--|---|
| Yes, I want to go back to secondary school | 2 |
| Yes, but I am now too old | 2 |
| Yes, but go to vocational school | 4 |
| No | 7 |

Source: Authors

Some of the children in school gave answers such as to become a hairdresser's or accountants which do not require a higher education level. Many of them worried about the economic difficulty in the family. They tend to dedicate themselves to their family. Even one boy who could not continue to secondary education told us that he was a bad role model for his family, so he must work hard for his younger siblings to continue schooling. We can see strong sympathy for their family.

At the same time, all children who are in school are doing domestic chores or engaging in income generating activities after school (see the table below). Only one interviewee could afford to go for private tutoring. It can be

said most of our interviewees were faced with some economic difficulties in the family. In other words, they can be in very vulnerable situations. Once one of family member gets a health problem, they will face difficulty in continuing schooling. Or, one girl who dropped out in LSS said, she worked after school, but it was not enough to support her family, so she decided to drop out and work fulltime. Even if they are now in school, it is not guaranteed that they can continue to university or to a desirable education level. We can say that both children and parents understand the importance of education and think very rationally about the benefits of education, however, it is natural for them to struggle with those dilemmas.

Table 5 Activities after school (C2)

| | C37 | C38 | C39 | C40 | C41 | C42 | C43 | C44 | C45 | C46 | C47 |
|-------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Study | + | + | + | + | | + | + | + | + | + | + |
| House Work | + | | | + | + | | | + | + | + | + |
| Income Generating | + | + | + | + | | | + | + | | + | |
| Private Tutoring | | | | | | | | | | + | |

Source: Authors

Note: Income generating consists of stone collecting, farming, and looking after livestock

5.4 Solutions and Ideas to Prevent Dropping out from Teachers and Other

Stakeholders

5.4.1 Teachers

As for actions of teachers to prevent children from leaving school, most of the teachers we interviewed (n=11) take some kinds of actions for preventing children's dropping out. Seven out of eleven teachers visit the household and persuade their parents to send the children to school, but one teacher said that it is very difficult to persuade them, and it often does not work well. We can see that they felt hopeless as they cannot help them beyond what they can do now. The reason is that, children's dropping out is because of economic issues which the education sector alone cannot deal with. Four teachers report the children's dropping out to the principal. However, two teachers do not care about children's dropping out and do not do anything to prevent them.

Table 6 Teachers' Measure for Children's Dropping out (n=11)

| | |
|--------------------------------|---|
| Visit Students' house | 7 |
| Discuss with the Principal | 4 |
| Discuss with community members | 1 |
| Not really | 2 |
| Others | 2 |
| | Sending textbook to the house Sending letter to the house Report to PTA |

Source: Authors

Note: Multiple answers are allowed

What they are actually doing to prevent dropping out and their ideas for preventing dropping out is different. Generally, most of teachers we interviewed have different ideas. Some answered that on the school side, extra classes, school materials, and new buildings are needed to prevent dropping out. Three teachers mentioned about improving families' economic situations. One talked about the government, he said, "the government should develop low employment to support children in finishing lower secondary school."

Overall, teachers we interviewed focus on dropping-out-children and take some action for them, but no one talked about daily classroom management for preventing dropping out. Keeping a good atmosphere in classrooms can also be a good prevention method for dropping out. Also, some teachers do not care about children who dropout and do not anything to prevent them.

5.4.2 Other Stakeholders

Several measures carried out by school principal, teachers, PTA leaders, village leaders, and monks are campaigning to raise the awareness of parents, tracking down children who drop out, making lists of school-aged children, educating teachers not to charge for extra-classes. According to them, they work collaboratively to take these actions in preventing dropping out. However, the way they work or approach this vary depending on their occupation. For example, while village leaders mainly direct education to parents and households, the school principal mainly approaches to teachers. It can be noted that those actors who do not take action towards parents and children directly (such as commune leaders, district officers, PTA leaders and school principals) may not know so much detail about the reality of the villagers' actual situation, and their emotional distance from some of the villagers may be quite far.

Table 7 Other stakeholders' actions for preventing children's dropping out

| | |
|----------------------|---|
| Schools and teachers | Ask schools to find out children who drop out |
| | Report to school principals about children who drop out |
| | Educate teachers not to charge for extra classes |
| | Make a list of school-aged children |
| Children | Call children to office |
| | Collect children and talk |
| Parents | Contact parents through village leader to motivate them |
| | Pagoda school gives advice to parents |
| Collaboration | Merge the job of village leader & school committee leader to make easy for the ministry to approach |
| | Cooperate with the PTA and the relevant authority (POE, DOE) |

Source: Authors

Consequently, we can see that various actors perceive their role (way of improving the situation) differently, depending on their jobs or responsibilities. For example, the school principal believes that the teacher plays an important role in educating children, while the village leader focuses more on parents and the collaboration with the PTA leader.

All the actors raised some points regarding schools or teachers. We see that some of the actors such as the district officer think improvement is needed regarding school principals. Also, four out of six actors raised some improvements are needed regarding the collaboration or cooperation issue among various actors. This may show that at the time we had interviews, there still was not a very good system or mechanism for such collaborative actions among the actors.

6. Conclusion – our new Conceptual Framework

As the whole, we can say that all the actors perceive education is important. However, some had to dropout despite their high value on education. Our first question was to find out the reason in detail and the inter-related issues towards stopping schooling was revealed (i). Therefore, all actors understand the importance of education, but actors perceive its importance differently. Our second question focused on their deeper perspective of importance of education and its differences. We found out there are two big differences and they are; Difference among actors (ii) and Difference within actor groups (iii). Here are the detailed descriptions of our main findings.

1) Inter-related reasons for dropping out

We found out that health issues in the family and low incomes are the root causes of dropping out, and because of those situations, there is a need for children to earn money for the family. So in this case, children's work is the direct reason for dropping out, but it is actually inter-related with other factors. In summary, it appears that some of the reasons for dropping out such as children's work, direct costs of schooling actually derive from health problems or low income within the family. There are so many different ways that lead to the decision making of the parents and children, based on their situation of each family. What was commonly seen in every group of households

regarding the process of decision making about schooling was that although both parents and children put a high value on education, they struggle with their family's living difficulties which they currently face. This complexity is one of our main findings that was not found in the previous literature.

2) Difference among actors in perception of schooling

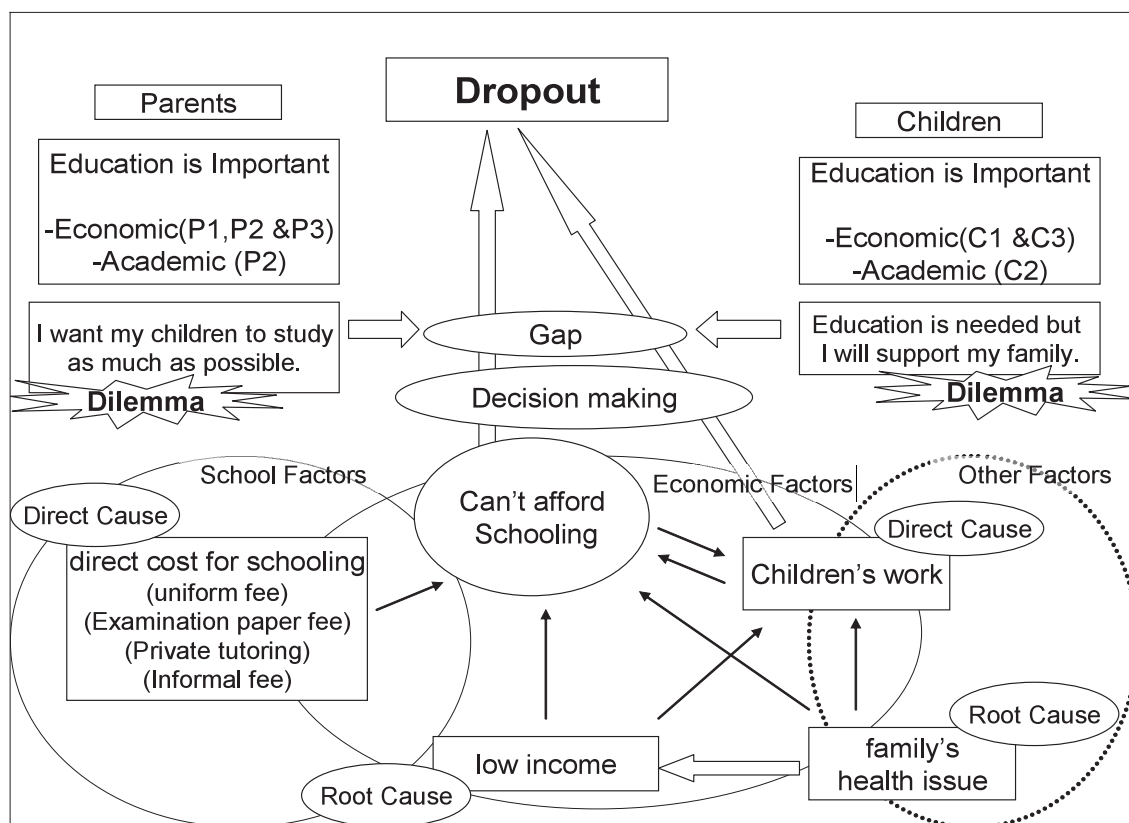
Actors perceived the issue of schooling differently depending on their situation. For example, firstly, regarding the value of education, while parents and children had a high value of education, others (such as PTA leader, village leader etc) had a different view. They thought that a low value of education among parents and children is one of the reasons for dropping out. Secondly, differences were seen between parents and children. Although they both put a high value on education, while parents tend to have the desire to send their children to school as much as they can, children tend to be conscious about the economic situation of the household, and make decisions by themselves not to go to school. They are faced with the dilemma between their high value on education and living difficulties. Here, we can see the strong emotional ties within the family. These aspects cannot be revealed only through statistical data in the previous studies.

3) Difference within actors in perception of schooling

Although all 3 group of parents want their children to get education, we can see some differences in the answers on their further plans of education. For example, there was a difference in what parents expect children to learn through education. While parents whose children are out of school tend to connect education at school with job opportunities, parents whose children are currently studying at school tend to expect children to acquire knowledge and skills through schooling. This tendency was also seen among children. When we asked children about their future plans, this tendency was more visible. Children who are out of school tend to have a desire to work in jobs more related to their lives such as repairing machines or sewing. On the other hand, children who currently go to school tend to have plans to become educated and be engaged in academic jobs such as teachers or doctors. These findings could be gained only through focusing on individual actors' deeper perceptions towards the issue of schooling.

However, there exist some limitations with our research. First, there should be more similar studies which cover more areas such as urban and remote areas because our research area was near the provincial capital and also by the main road and mountainous areas. Second, our sample size is relatively small; especially we could not find many interviewees for Group 3. Third, basing on our findings, we suggest two interesting studies: (1) the cooperation between school and community; and (2) the linkage between school and job market. Despite the uniqueness of our research which primarily is intended to achieve a deeper perception, it has a little weakness in terms of our methodology. Because of time constraints, we could not conduct deeper interviews.

Figure 7 New Conceptual Framework



Source: Authors

7. Implications

The following part will explore the possibilities and show some implications to address the dropout issue which is far more complex than we imagined. All implications are mainly based on very insightful and realistic answers by teachers and other stakeholders, who were asked questions about how they respond to the drop out issue and what they think as to the way to improve the situation.

Strengthening collaboration at various levels

During the interview with teachers and other stakeholders, they often mentioned they actually take action to prevent students from dropping out and to raise parents' awareness toward schooling. Also, they have various ideas how to improve the situation of dropping out from schooling. Some of them have chances to communicate and work together to tackle the drop out issue, but still the cases and actors are limited. In order to keep children in lower secondary school and improve the situation of high dropout rates more effectively, there must be strong collaboration at various levels, including parents-teacher collaboration, teacher-teacher collaboration, teacher-school principal collaboration, school-villager collaboration, primary school-lower secondary school collaboration, and school-administrator (in commune, district, provincial, and the national level) collaboration, etc. As for the collaboration between parents-teacher collaboration, schools can provide the opportunities to have class

observations for parents. If parents see how their children learn in the school as well as communicate with teachers, parents and teacher can reduce misunderstandings about the whole situation of the children, and work together to prevent children's dropping out.

Improving schools

Based on the answers from children and parents, some teachers (not all) charge informal fees for extra classes (called private tutoring) or examinations, and sometimes this results in increasing the direct cost for schooling, then leads to children stopping schooling. According to the Ministry officials, the New Education Law, in draft as of August 2007, prohibits teachers from collecting fees informally and gives punishment if they do. This is expected to work as away to reduce informal direct cost of lower secondary education and contribute to reducing the dropout rate.

Inviting companies to motivate children ~collaboration between work place and school~

According to the responses from children and parents, some of them cannot see the benefit of schooling in visible and accessible ways. Moreover, some interviewees mentioned concrete examples that one cannot find a good job and have to work under the same conditions a slower secondary or primary school graduates even though he/she graduates from upper secondary school.

Based on the fact that most of the parents and children often see the value of education based on the job opportunities or high income, it is needed to make both the short- and long-term benefits of education visible to parents and children. In order to put this into practice, each school can invite employers of a company, factory, and so on and ask them to explain what skills and knowledge are needed to be employed there, for example, they need at least lower secondary graduates.

In addition to this, it may work to include more skills education that is based on children's needs (farming, Moto-repairing, sewing, hair-making etc.) according to the interview.

Lower the burden to go back to school

Establishing a more flexible system for those who dropout is also needed. After some duration of absence from school, children believe that they can no longer go back to school. Also, once they dropped out from school, children feel a psychological distance from school because of their age and other obstacles. Through the interviews, we found that those children who dropped out still understand the importance of education, but there is no way to go back to school once they are out of school. Therefore, there must be a system that enables out-of-school children to come back to school more easily and teachers should encourage them to come back. For older children who feel a strong hesitation about their age, specific ways to lower the burden should be taken. For example, to establish community centers or schools to teach them how to read and write as well as to obtain vocational skills, evening schools informal schools, and increasing the access to vocational training centers.

Acknowledgement

With much gratitude we owe to the following people who have contributed to supporting our team's research from the beginning until the end of the fieldwork.

We would like to express our gratitude to those who have cooperated with us in conducting our research. First, we would like to express our deep gratitude to Dr. Kitamura, who is our helpful group supervisor having

facilitated our work both during the fieldwork and finalizing our report. Second, our gratitude is owed to those helpful counterparts in Cambodia, namely Prof. Norng Lina, Mr. Tep Livina, and Ms. Mak Srey Moch, who helped participated in the fieldwork both as facilitators through their good ideas, and comments as well as interpreters. Last but not least, our special thanks is owed to the village leader who spent his time and effort to show us accessible routes to reach our interviewees. We would also not be able to forget our informative interviewees in the North and South Trea villages of Rolea B'ier district namely, our respondents, children, parents, school principals, PTA leader, teachers, monks, DOE officer, and commune chief, as well as the school principal of Tiroam Khet lower secondary school in Kampong Chnang district. Without their valuable aid in assisting us in the field, our fruitful research could not have been achieved so smoothly and successfully. We wish them prosperity and happiness in the future.

References

- Adomossie, A. (2003). Child labour and schooling in the context of a subsistence rural economy: can they be compatible? *International Journal of Educational Development*, 23, 167-185.
- Arunatilake, Nisha. (2006). Education Participation in Sri Lanka- Why all are not in school *International Journal of Educational Research* 45, 137-152.
- Balatti, J., and I. Falk. (2002). Socio-economic contributions of adult learning to community: Social Capital Perspective. *Adult Education Quarterly* 52 (4), 281-98.
- Becker, G.S. (1964). *Human capital*. New York: Columbia: University Press.
- Buchmann, C. (2000). Family structure, parental perceptions, and child labor in Kenya: What factors determine who is enrolled in school? *Social Force*, 78(4), 1349-1378.
- Cockburn, J. (2001). Child labor versus education: Poverty constraints or income opportunities? Paper presented at a Conference on Opportunities in Africa: Micro-evidence on firms and households, April.
- Colclough, C., Rose, P., & Tembon, M. (2000). Gender inequalities in primary schooling: The role of poverty and adverse cultural practice. *International Journal of Educational Development*, 20, 5-27.
- de Walque, D. (2004). How Does the impact of an HIV/AIDS information campaign vary with educational attainment? Evidence from rural Uganda. Policy Research Working Paper 3289, Public Services, Development Research Group, World Bank, Washington, DC.
- Ersado, L. (2004). Child labor and schooling decisions in urban and rural areas: Comparative evidence from Nepal, Peru, and Zimbabwe. *World Development*, 33(3), 455-480.
- Fershtman, C., Murphy, K.M., and Weiss, Y. (1996). Social status, education, and growth. *The Journal of Political Economy*, 104 (1), 108-132.
- Haveman, R.H., & Wolfe, B.L. (1984). Schooling and economic well-Being: The Role of non-market Effects. *The Journal of Human Resources*, 19 (3), 377-407.
- Hernandez, M. and Nesman, T. (2004). Issues and strategies for studying Latino student dropout at the local level, *Journal of Child and Family Studies* 13:4, p453-468.
- Jensen P., & Nielsen H.S. (1997). Child labor or school attendance? Evidence from Zambia. *Journal of Population Economics*, 10, 407-424.
- Kadzamira, E. & Rose, P. (2003). Can free primary education meet the needs of the poor?: evidence from Malawi, *International Journal of Educational Development*, 23, 501-516.

- Keng, C. (2006). Why do girls dropout of school? Evidence from rural Cambodia. 6-12.
- Ministry of Education, Youth and Sport Planning Department. (2005). Education Statistics & Indicators 2004/2005.
- National Institute of Statistics Ministry of Planning (2002) Cambodia child labor survey 2001. 17-41
- Rumberger, R. W. (1983) Dropping out of high school: the influence of race, sex, and family background. *American Educational Research Journal*, 20(2), 199-220.
- Rumberger, R.W. (1995). Dropping out of Middle School: A Multilevel Analysis of Students and Schools. *American Educational Research*, 32(3), 583-625.
- Torney-Purta, J., & Schwille, J. (1986). Civic values learned in school: Policy and practice in industrialized nations. *Comparative Education Review*, 30 (1), 30–49.
- Schuller, T., Angela G.B.Andy Green, Cathie Hammond, and John Preston. (2002). Learning, continuity, and change in adult life. Center for Research on the Wider Benefits of Learning, London.
- Shimizu, K. (2002). Komyuniti, Enjodantai, Seifukan no Kyoryokutaisei ni Motozuku Syougakkou Kensetsu Purojekuto: Kanbozia wo Jirei toshite. Unpublished Doctoral Dissertation, Nagoya University.
- UNESCO. (2006). EFA Global Monitoring Report. Strong Foundations: Early Childhood Care and Education. Paris: UNESCO Publishing.
- UNICEF. (2000). Student repetition in Cambodia: causes, consequences, and its relationship to Learning.
- World Bank. (2003). Quality basic Education For All, Cambodia.

Culture

Pottery Making Culture in Andong Russey Village, Srae Thmei Commune, Rolea B'ier District

1. Introduction
 2. Significant Information from Each Target Group
 3. Main Findings
 4. Policies Regarding Pottery Making
 5. Issues at Present
 6. Conclusion
- References

Group Advisors:

Professor: Ayako Uchida (GSID)

Professor: Nith Bunlay (RUPP)

Written By:

Net Seila**
Yoko Aoki

Sumire Kanda*
Wakako Ishikura

Misato Asai

**Group Leader *Sub-leader

1. Introduction

Cambodia, or the historical Khmer empire, is one of the oldest countries in Asia as well as in the world. Its long tradition and cultural heritage also make this country unique and attractive. Both tangible and intangible traditions have been well preserved until today in spite of many times of upheaval, wars, and political unrest. One aspect of Cambodian culture which dates back a thousand years is pottery. Khmer pottery is said to be as old as Khmer culture itself.¹ Pots and pottery products are made in many provinces in Cambodia. Among them, Kampong Chhnang is reported to be the most famous.

The word “Kampong” means “port” in Khmer, while “Chhnang” means “pot”. As its meaning implies, Kampong Chhnang is a well-known province in Cambodia for its pottery making, and pottery making itself is a unique traditional culture of this province as well as of Cambodia as a whole. Pots and pottery making have played important roles, not only in improving the socio-economic conditions of rural dwellers, but also in sustaining the people’s daily lives and cultural heritage into the present day. Pottery has special value, and is an attractive feature of Kampong Chhnang province that distinguishes it from others in Cambodia. As soon as Cambodian people hear the name of Kampong Chhnang, the first image they immediately have is its pottery making. This kind of craft has become not only an important part of the culture, but also a way for people to earn their living. In fact, pottery making in this province is so crucial that any study or research conducted on it sheds light on the villagers’ way of living, their sense of value, and their way of thinking.

In the era of globalization, it is obvious that culture has been affected by many inside and outside factors. The culture of pottery making in Cambodia is no exception. What is worth noting is that, passing through many generations, prosperous or impoverished, this traditional culture still exists despite the pressures from globalization of dramatic changes and cultural homogenization. However, not all aspects of culture are affected – in fact, that people are good at keeping what is best of their tradition and adapting something new and useful for their own cultural development is well documented in human history. Above all, culture is just like an iceberg of which only a small part can be seen above the water surface while the remaining part lies deeply underneath. Put simply, it is always easy to see what people are doing, but it is hard to see what people are thinking. This concept is the skeleton of this report.

1.1 Research Objectives

Based on the above mentioned research background, this report explores the following question: What are the traditional and new aspects of the pottery making in Andong Russey Village, Srae Thmei Commune, Rolea B’ier District, in Kampong Chhnang Province?

More specifically, its main aims are to:

- 1) See what part pottery making and usage plays in the villagers’ daily lives and what attitudes and values it reflects.
- 2) Find what the external and internal factors affecting the culture of pottery making are
- 3) Illustrate what possibilities and difficulties exist surrounding pottery making in the village.
- 4) Give some implications for pottery making as a culture in the future.

1.2 Research Methodology

We selected 39 households in Andong Russey village as the samples. Andong Russey is a typical village for pottery making in Kampong Chhnang for three reasons. First, it is located next to a mountain, named “Kraing Dey Meas”, from which good quality clay can be taken. Secondly, more than 50% of the villagers engage in pottery making and related activities. Thirdly, the village has a long history of pottery making and has received support from several international organizations.

In order to make the research more diversified and incorporate different perspectives, we divided our target groups into 5 main categories – 1) pottery makers, 2) pottery sellers, 3) local pottery users, 4) migrant pottery users, and 5) non pottery users. Moreover, we also conducted interviews with officials and authorities at different levels, ranking from the deputy chief of the Department of Fine Arts and Crafts of the Ministry of Culture and Fine Arts in Phnom Penh, to the deputy chief of the Department of Culture in Kampong Chhnang province, the cultural officer of Rolea B'ier district, the commune leader of Srae Thmei and the village chief. The table below lists the target groups and sample sizes.

Table 1 Target Groups and Samples Sizes

| Pottery Makers | Pottery Sellers | Local Pottery users | Migrated Pottery Users | Non Pottery Users | Officials and Authorities |
|----------------|-----------------|---------------------|------------------------|-------------------|---------------------------|
| 14 | 11 | 7 | 4 | 3 | 5 |

Source: Authors

1.3 Scope and Difficulties

Before describing the main findings, it is important to note that the results of this research do not necessarily reflect the situation in Kampong Chhnang province as a whole, or in Cambodia as a whole, for two main reasons. Firstly, the samples we selected are very small and the fieldwork period was limited. Secondly, the situation is quite different from one province to another. Additionally, the results themselves do not cover all aspects of pottery making as a culture of Cambodia, since our questionnaires were based on our research focus.

In addition, we experienced many differences in the quality of answers from our respondents. Conducting interviews both in English and in Khmer with the help of interpreters caused difficulty in fully catching the entire content of responses. However, we have tried our best to obtain all the information necessary for an optimal outcome of this research. Despite the variety among the answers of respondents, this report could be still a reliable source because it covers all the important concepts and obtains all the necessary information for our research objectives. Thus, it tries to explore the present situation of pottery making culture in Andong Russey village.

2. Significant Information from Each Target Group

First of all, we would like to introduce significant information we received from each of our target groups. The main findings and analysis follow in the next section.

2.1 Pottery Makers

2.1.1 Main Participants

Half of the pottery makers in the village are between 31 and 50 years old. Except for one respondent, they are all female. Although women largely engage in the whole process of pottery making, men are also involved in some activities, such as getting and carrying clay from the mountain, and firing the products. Half of the pottery makers engage in farming as an occupation as well as pottery making. Though there is variety in the number and make-up of their families, half have more than 5 members in their families.

2.1.2 How Did Makers Learn to Make Pottery?

It is worth noting that there are two types of potteries in the village today: traditional and new. Most pottery makers said that they learned how to make traditional pottery from their mothers, i.e., from generation to generation. On the other hand, some people learned how to make new items such as purifying pots, souvenirs (small pots with elaborate designs and shapes), and colored pottery, from international organizations.

2.2 Pottery Sellers

2.2.1 Basic Information from Respondents

The majority of our respondents are female, with 4 males among the total sample of 11. Our sample covers all age groups, but the largest subgroup is the 31 to 40 group. Some families engage in both pottery making and selling, while some others engage only in pottery selling. In addition to pottery making and selling, their family members also engage in other informal jobs such as making palm sugar and rice plantation. 3 of the men were migrants from other districts in the province or from other provinces. 1 man and all 7 women were born in Andong Russey.

2.2.2 Main Buyers

The main buyers are the “middlemen”, who regularly come to collect all kinds of pottery from the village by truck. Pottery is also sold directly to customers who visit the village. These customers are from Poi Pet, Battambang, Pursat, and Kampong Chhnang. The types of buyers have changed lately. Traditionally, pottery products from this village were used only among local people or people in rural Cambodia. But now with the rise of new-style pottery, Phnom Penh dwellers also seek pottery products for decoration. Moreover, Thai and Vietnamese people have also become new buyers. Visitors to Kampong Chhnang and Andong Roussey also buy pottery products as gifts for their friends and families.

2.2.3 Popular Pottery

Every kind of pottery product is popular among different target groups. Pottery sales depend mainly on the

season. During the dry season, old-type pottery sells well and is bought for daily use, while new-style pottery becomes popular during special occasions for ornaments and presents. The number of buyers is gradually increasing and their favored products have not much changed so far.

2.3 Pottery Users

2.3.1 Local Pottery Users

We interviewed 7 respondents as local pottery users. 5 out of the 7 knew how to make clay pots, which they learned from their mothers or their grandmothers. However, 2 out of these 5 stopped making clay pots during Pol Pot era. This group of 7 has made their living by farming, making palm sugar and animal rearing, along with pottery making. Thus pottery making has not been the only way to make a living in the village. 2 people said that they are interested in making pottery, while another 2 are not because of health problems.

All respondents use both clay pots and pots made of other materials such as plastic, ceramic, metal, and cement. There are 2 people who prefer using clay pots while another 2 prefer other materials. The main reasons for the former case are: 1) Clay pots are traditional, 2) They are good for cooking, 3) They keep water cool. As for the latter, people prefer using products made of other materials because they are more durable than clay pots. They use both traditional clay pots and new-style pottery.

Even non pottery makers and former makers think pottery is very important for them and other villagers. Pottery making is not only a traditional culture that is deeply rooted in the villagers' way of lives, but it is also an important source of income. It can be said that pottery making forms their identity in both a cultural and economic sense.

2.3.2 Migrant Pottery Users

We interviewed four respondents as migrant pottery users. They are all farmers, but also engage in other jobs such as rice milling and bike repairing. They all moved to the village due to marriage, and their partners are local villagers. 1 out of 4 respondents knew how to make pottery by observing other makers. All 3 informants who did not know how to make pottery showed an interest in learning, though 2 men acknowledged pottery making was women's work. However, they were actually participating in the process of pottery making by buying and transporting clay, and collecting straw to fire pots.

Generally, all of them use both clay pots and pottery made of other materials such as metal, plastic, and cement. However, 2 out of 4 said they preferred clay pots. A respondent who is a small food shop owner prefers metal, because it can cook faster, better enabling them to serve their customers. Cooking with clay pots takes too much time and they can be easily broken. She uses clay pots in her daily life, in both traditional and new ways. For example, the former includes storing water, cooking, washing dishes, and putting it under the trees. The latter can take the form of water purifying pots and flower vases. They also mentioned they use clay pots for special occasions, such as weddings and Khmer New Year.

We discovered from our interviews that migrants from other villages or regions were also proud of the local tradition of pottery making because Andong Russey Village is known for its higher quality of clay. Thus cultural identity based on pottery making is widely shared among the people in the village.

2.3.3 Non Pottery Users

We found 3 respondents that can be classified as non pottery users. Among them, 2 thought of trying to use clay

pot, but finally gave up because it is not convenient for daily use. The specific reasons we found are:

1. Clay pots take longer heat and food cooks slower
2. Clay pots break easily
3. Clay pots are not just convenient – rice sticks to the pot

Significantly, even though they are non users, they all say pottery is still important to them. The reasons are 1) It is a way for the villagers to earn money to live, 2) It is a national tradition and heritage, and 3) Pottery making enables women to work from home.

2.4 Officers and Leaders

In Kampong Chhnang and Phnom Penh, we also had the opportunity to conduct interviews with five officers, ranking at the ministerial, provincial, district, commune, and village levels. These interviews have been quite helpful in providing further information that allows us to grasp the culture of pottery making from different points of view. We found some similarities and differences among their views.

Officials and authorities at all levels agree that pottery making is part of the culture of Kampong Chhnang as well as Cambodia. It is a tradition that has been sustained from generation to generation. When seeing ox carts traveling around the country with pottery, Cambodians naturally realize that the products are from Kampong Chhnang. There are also other provinces where pottery is made, such as Siemreap, Preyveng, Takeo, and Kompong Speu. Even within Kampong Chhnang, several districts make pottery. In Srae Thmei Commune, there are two villages that make pottery, including Andong Russey. Pottery has also been made in other provinces because the people from Kampong Chhnang migrated to those areas and spread their knowledge there. But the pottery from those provinces is not as good as that from Kampong Chhnang. The bodies and covers of the pots used to be made in different places. But now they are made in the same place, which makes it easier for buyers to find a complete pottery product.

Although the provincial cultural office regards pottery making as the typical local culture of Kampong Chhnang, the village chief and the commune chief expect further refinement in skill and quality. In order to improve the techniques of pottery making, the two officers think the skills for color mixing should be further developed. The clay from Andong Russey village has been taken for quality checks in Japan. As a result, a new kind of clay cup was made and is now placed in the Cambodian National Museum in Phnom Penh. The results for color mixing have so far not been so good because most pottery has traditionally been fired at only 800°C. For the best color, clay pottery must be baked at 1200°C.

The leaders at every level except the deputy director of the Department of Fine Arts and Crafts in Phnom Penh support the idea that pottery making should take industrial, cultural, and touristic roles. But the future seems vague with a lot of difficulties. Achieving economic sufficiency based on pottery making might take a long time and much effort. In order to keep the tradition of pottery making alive, they think they need to continue promoting new kinds of pottery while maintaining traditional types as well.

3. Main Findings

Based on the answers from all of our respondents we found that international organizations have had a great impact on the emergence of the new-style pottery making and its related activities. Beside this international help, many other factors also have contributed to a greater or lesser extent to the rise of new-style pottery making. Meanwhile, we have realized that some traditional aspects of pottery making have been well maintained. This section, focusing on the main findings of our research, aims to discuss this coexistence of old and new pottery making in the village based on the research objectives of this report.

3.1 Traditional Pottery

3.1.1 Features

As mentioned in the introduction, the pottery of Kampong Chhnang has a long history. It was even present during the Angkor era (802-1431), as recorded by Chi Ta Kvann. According to his diary, he passed through CHE-HANG (Kampong Chhnang nowadays), KOR-DORB (now Chhnok Trou) and SAB Sea (now Tonle Sap) on his way to Angkor City. The pottery he saw in Kampong Chhnang appears to have been almost the same as that which we saw in the village today: in shape, size, design, clay and usage. We discovered that traditional pottery is still hand-made and used in daily life for several purposes. People in the village use small pots to store water and to cook. Big ones are put on the roots of trees in order to keep them wet and cool during the dry season. Also, pottery seems to be useful to keep water warm or cool. Although the size varies according to usage, the shapes and the designs are very similar. Each pot is round and its surface is smooth. It has no carving or decoration. There are two main types of pottery: pots with or without lids. People also use pottery on special occasions such as in a traditional game called “Vey Ka-Orm” played on New Year’s days.²

3.1.2 Making Pottery

The methods of making pottery follow four steps. First of all, the pottery makers go to the mountain near the village to collect clay. The clay from this mountain is suitable for pottery making and this is the reason why Kampong Chhnang is famous for pottery. Secondly the clay is kneaded, and shaped into a pot with a stick and by hand. Pottery makers use their hands to knead the clay and pat it with the stick to make its shape as they walk around the clay. This part of process is tough work for women. The villagers used to use cups made of clay though they tend to be fragile. This type of pottery has disappeared. The color of traditional pottery is red-brown and this old type is called golden pottery. Since the heat of a traditional oven is below 800°C, the pottery tends to be broken easily. One villager says that this golden color is the evidence that the clay from Kampong Chhnang is the best in Cambodia.

3.1.3 Women as Pottery Makers

In Kampong Chhnang it is mostly women who engage in pottery making. According to the interviews, one of the reasons is that their hands are softer than men’s, and so more suitable for shaping pottery, but men help with the process of collecting clay from mountain and firing the pottery. Another reason is that women can take care of their children while making pottery at home. In addition, they are able to make pottery all year around except for the farming season. They can also earn additional income by making pottery. Thus women tend to prefer to make pottery. The technique of pottery making has been passed down from mothers to their daughters and to their

granddaughters, because the main pottery makers are women.

3.1.4 Revival of Pottery Making

Although the tradition of pottery making has been sustained for a long time, there was a vacuum period. Not only pottery making in Kampong Chhnang but also much other Cambodian culture disappeared during the Pol Pot era in the late 1970s. People throughout Cambodia, including in Kampong Chhnang, fled their hometowns or were forced to move to another area. Pottery makers were no exception, so that pottery making in Kampong Chhnang stopped completely. Nevertheless, after the Pol Pot regime ended, villagers came back to the village and started making pottery again. Their styles and methods were basically the same as before. Through this history of hardship, we realize how pottery making has been deeply rooted in the villagers' lives.

3.2 Supporting Organizations

Cambodia opened its economy in 1993 after the first national election. As of the present time, there are six supporting organizations that have helped pottery making in this province. There are mainly two kinds of support, one provides training programs for new techniques and the other provides equipment such as wheels and ovens. Some organizations have provided both.

Most villagers mentioned a German organization that came to Kampong Chhnang in 1998 in order to provide the training for making pottery that is more marketable. The same organization also provided them with wheels. The methods of making pottery and the products themselves were different from traditional ones. With the introduction of wheels, villagers began to produce smaller pots with carving and designs on the surface. In addition, big pots for purifying water appeared. The characteristics of this new-style pottery will be discussed in the next section. We met one lady who had decided to go to Japan to undergo training. Her mother is a living national treasure, known for making the best pottery in the country, and she is very interested in the techniques of new-style pottery making. Not all pottery makers have their own oven for firing pottery and the public oven was built by JICA. When they fire pottery, they pay a fee to use the public oven. Thus the supporting organizations have had a great impact on the rise of new-style pottery making in Andong Russey Village. The names of the organizations involved in promoting pottery making are as follows.

- Cambodian Union Cooperation
- CLAIR: Council of Local Authorities for International Relations
- JCCP: Japan Center for Conflict Prevention
- JICA: Japanese International Cooperation Agency
- Khmer for Human Resource Development
- Seila Program

3.3 The Emergence of New-Style Pottery

3.3.1 Features

The emergence of new pottery reflects many changing aspects in contemporary Cambodian society. The most noticeable changes are found in their usage, methods of making (or transfer of techniques), and the rising fame of Khmer potteries on the international stage. Though new-style of pottery has a variety of shapes and designs, they

can be mainly categorized into two forms. The first is shapes such as birds, rabbits, crocodiles, and elephants. These new types have been promoted by supporting organizations for their marketability. The other is miniatures of traditional pottery. Makers are able to make pottery much smaller by using wheels. Both types are for decoration and souvenirs so that the villagers themselves might not use them daily. With the emergence of these products, new-style pottery has become widely accepted and used, especially for special occasions such as wedding parties, where it is used as gifts for guests.

3.3.2 Old and New Pottery

While the new-style pottery gains popularity with the introduction of new techniques and machines, there are concerns over the prospects for traditional pottery. These new techniques have greatly contributed to the rationalization of pottery making by saving time and energy – villagers save time that they can now spend engaging in other activities or making more pottery. But the new way of transferring skills has emerged at the center of the concerns. Although the future of pottery making in the village cannot be known from our research, there are two cases that shed light on the possible decline of traditional pottery. Firstly, so far there have been no training programs that specifically promote and support traditional pottery making skills. Together with the fact that the Cambodian government does not have enough budget to spend on the promotion of pottery making, without proper policies and actions, the young generation will lose interest in making old kinds of pottery. This traditional culture might decline in the next or the following generations. Secondly, this possibility is supported by the fact that pottery making has no formal or written instructions³ – it is just passed on orally from generation to generation among female makers. From the non pottery users' side, the problem is also evident. They have stopped using pottery because of its inconvenience. It is obvious that, in the era of globalization, a wide range of products made of other cheap materials are gradually penetrating into the villagers' daily lives – they might soon come to replace clay pots. Moeun Chhean Nariddh, who delved into ancient traditions in Kampong Chhnang, also expressed his great concern about the possible decline of ancient pottery skills.⁴ Some action to support the traditional skills might be necessary in order to prevent the possible decline of traditional pottery, which has continued through many generations in spite of civil wars and social upheavals in this country.

3.3.3 Toward the International Stage

The most interesting part of our findings is that Khmer potteries now show themselves on the international stage. Looked at in a broad context, globalization does affect the lives of the villagers in Andong Russey. By joining the training programs, some villagers have now experienced and witnessed the real techniques practiced in Japan. In addition, their products can be exported to other countries. This used to be difficult because traditional pottery was usually big and fragile. With the training programs supported by international organizations, however, new Khmer pottery can today be exported to Thailand and Vietnam and as far as the United States. According to the deputy director of the Department of Fine Arts and Crafts, as well as some of the villagers, pottery from Cambodia has a good reputation abroad because it employs Khmer styles of carving and design. Picture 1 and Table 2 show the features of the traditional and new-style products.

Table 2 Features of Traditional and New-Style Pottery

| Shape | Size | Design | Usage | Production | Sale |
|--|--|--|---|--|---|
| Traditional Pottery | | | | | |
| - two kinds of pots, - with or without covers | - Big and fragile | - simple -no decoration or carving | - For storing water - For cooking - For carrying water - For keeping the roots of small trees wet during dry seasons - For storing palm sugar | - By hand - Daughters learn from their mothers - Uses a lot of time and energy | - by ox cart and through middlemen - Low price - Local villagers as the main consumers |
| New-Style Pottery | | | | | |
| - Many kinds - Shaped according to the consumers' tastes and the makers' creativity | - Big or small, round or cubic. - All sizes available | - Many designs and varieties - original designs developed - Some colored potteries | - Wider Use - For decoration - For burning candles - For souvenirs - As gift for wedding - As flowers pots - For purifying water | - Semi technology - Introduction of machines such as wheels and kilns - Learnt from training programs. | -Decrease in sale by ox cart -middlemen come directly to the village in their own trucks - Direct sale to visitors - Increase of buyers from Phnom Penh, other provinces, and Thailand and Vietnam. - Price increases |

Source: Authors

Figure 1 Different Types of Potteries: From Left to Right: Traditional, New, and Colored Potteries

Source: Authors

3.4 Pottery in Villagers' Daily Lives

Through our research, we found that pottery is rooted deeply in the villagers' daily lives. From nothing is more evident than from the fact that some villagers make, sell and use pottery at the same time. As mentioned earlier, in some families, mothers engage in making traditional kinds of pottery while daughters participate in making new kinds. We can draw two implications from this finding. Firstly, they are consciously or unconsciously promoting and preserving their pottery making culture. Secondly, they are helping to sustain and improve their families' standards of living. Therefore, we can link these two reasons together and state that from a broader aspect the culture of pottery making is also a way for the villagers to make money. Additionally, we may learn more about the relation between pottery and the villagers' lives by looking at each of our target group's responses.

3.4.1 Pottery Makers

Pottery making occupies a big part of the makers' work time. Except for the rice planting season, from July to September, the villagers are occupied with making pottery. Moreover, pottery making is quite a hard job. As mentioned earlier, it takes much time and energy. Although the makers themselves may rest, they make pottery almost everyday from morning to evening. We also found that many young women drop out of school and help their mothers to financially support the family by making pottery (mostly in the new style). Therefore, it is safe to say that pottery making takes much of the villagers' time.

3.4.2 Pottery Sellers

In the case of pottery sellers, pottery is the main source of income. Some of them engage only in selling (indirectly supporting the culture) and spend most of their time traveling by ox cart to sell the products. They can also sell via the middlemen or directly to the tourists who visit the village.

3.4.3 Pottery Users

Analyzing from the users' side, pottery can now be used even more widely in their daily lives. It appears not only in the kitchen and the field, but also during special occasions. Recently, villagers have begun using the new creations of this traditional culture – water purifying pots – for health purposes. With the appearance of new types of pottery it is certain that villagers are now able enjoy using pottery for a wider range of purposes than has previously been possible.

3.4.4 Non Pottery Users

For non pottery users, traditional pottery seems to have disappeared from their daily lives. Nevertheless, they might still have occasion to use the new-style pottery at any special events such as during Khmer New Years. Overall, the culture of pottery making influences the villagers' daily lives not only through sustaining their livings, but through enriching their lives in various ways. With this variety of usage, pottery is related to almost all aspects of the villagers' lives such as work, cooking, economy, entertainment, and religion.

3.5 Changing Life in the Village

As we find that both traditional and new-style pottery is intertwined with the villagers' lives, we would like to

focus on the impact of the training programs provided by the supporting organizations. Firstly, we would like to discuss the changes among the female pottery makers, and secondly the socio-economic gap developing in the village.

3.5.1 Generational Change among Female Makers

In the process of pottery making, there are several steps such as fetching clay, shaping pottery, firing and so on. In our research, we interviewed 14 pottery makers. Among them, 13 were women. As mentioned earlier, it is mainly women who engage in pottery making in the village, especially in the process of shaping. On the other hand, men also engage in some activities such as fetching clay from the mountain, and firing the pots. Since 1998, supporting organizations have started providing the makers with some skills through training programs. This leads us to consider whether or not the roles of family members have changed with the introduction of new production styles.

As we conducted interviews, we found several families where both mothers and their daughters engaged in pottery making. In these families, the mothers make traditional pottery, following the old methods such as walking around pots and patting them, while their daughters produce new kinds of pottery with wheels. This situation arose after supporting organizations introduced the villagers to new methods and techniques along with some equipment such as colors, wheels and ovens. In some families, where both mothers and daughters engage in pottery making, daughters are working at a factory in the village making new style pottery. This fact leads us to conclude that women in the village have continued to engage in pottery making. However, there have been certain changes with the introduction of new techniques from supporting organizations, concerning the kinds of pottery, manufacturing methods, and the places where the pottery makers work. Therefore, it is safe to assume that the villagers, especially pottery makers, have experienced transformations in their roles and relations.

3.5.2 Inequality among the Villagers

Relations not only within families but also in the community as a whole may be effected by outside influences. Sometimes relations within communities experience certain changes with the introduction of new techniques, knowledge, finance and equipment. As already mentioned, supporting organizations have provided the pottery makers with the training programs to equip them with the knowledge of how to make new kinds of pottery. We highly acknowledge these efforts and the contribution they have made towards promoting pottery making, but so far the number of people able to participate in such training programs seems to have been limited.

According to the information we received, there are various reasons for lack of participation, such as age, gender (only young women are interested in or encouraged to learn new skills), networking, lack of information, and association sign-up fees. Many pottery makers mentioned that only young females could participate in the training programs. Some villagers also mentioned that those who had close relationships with the village leaders or authorities had a higher chance of being able to participate. In addition, information about the training programs has not been spread widely enough. When we conducted our interviews, some pottery makers mentioned that even though they heard of the training programs, they have never seen details of the programs themselves. From this fact, it can be assumed that many pottery makers did not have the chance to get enough information about the training programs.

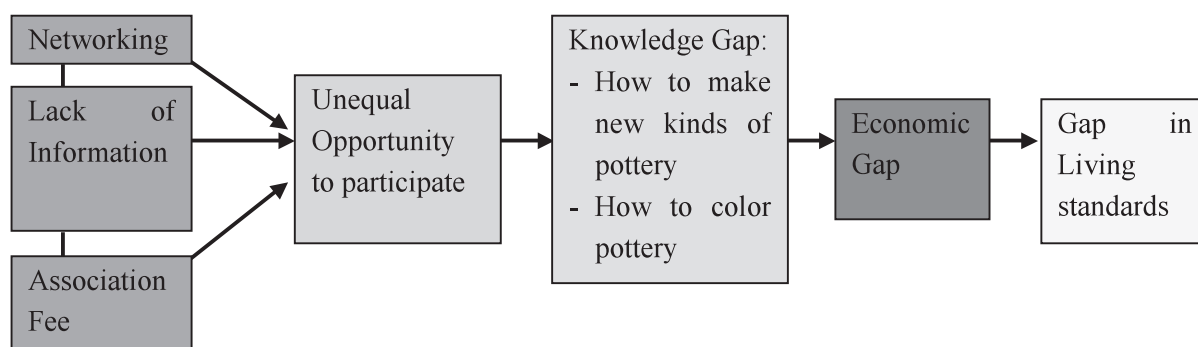
In addition, according to a few villagers, in order to participate in training programs, participants are required to be a member of the association, which they may join by paying an association fee.⁵ Since the financial situation is different from family to family, some of the pottery makers could afford to pay the association fee, but others could not. These conditions could limit opportunities to participate in the training programs, and accordingly create a knowledge gap among the pottery makers. The problem becomes even worse when we realize that some villagers

are able travel abroad to experience and learn pottery making skills from developed countries such as the USA and Japan, but that the number has so far been limited. Only a few villagers are able to learn how to color pottery, while others have no opportunity to go to foreign countries to acquire new skills. Although there might be some effort at inter-learning among the villagers, the knowledge seems not to have spread widely so far.

Moreover, according to the villagers, since the price of new-style pottery is four times higher than the traditional type, it is assumed that an economic gap might develop from the knowledge gap. Those people who are able to participate in training programs are able to make new kinds of pottery so that their source of income would include both traditional and new-style products. On the other hand, since those who are not able to participate in the training program engage only in making traditional pottery, their sources of income would be limited.

If such an economic gap developed among the pottery makers, it is assumed that those with higher incomes would be able to improve their standard of living. Higher incomes would improve the health of the family while increasing the opportunity for children to receive higher education. Moreover, such families would be able to buy more expensive equipment. Therefore, whether or not they are able to participate in the training programs may ultimately affect the lives of the pottery makers. Limited access could lead to a widening gap in knowledge, as well as in economy and living standards in the village. Figure 1 summarizes this possibility.

Figure 2 Flow Leading to the Emergence of Gap among the Villagers



Source: Authors

3.6 Cultural Values

Pottery making is not only deeply rooted in villagers' daily lives, but has also been one of the cultural symbols that represent the village. However, it is not obvious how the villagers themselves value their culture of pottery making. Based on several questions we asked them, we would like to illustrate some aspects of their cultural values concerning pottery making.

3.6.1 Proud of Pottery Making?

We asked all of our interviewees if they were proud of their pottery making. As figure 2 shows, the result is that almost all of our samples answered they were proud of their pottery making. However, the main point of this question is not the number of the samples themselves but the reasoning behind their pride.

Figure 3 Villagers' Views of Pottery 1



Source: Authors

Generally, there are two main views expressed by the villagers. The first is that pottery making is a way of earning money. The reason that pottery making is a traditional culture comes second. Most people give the former view as the reason behind their pride in pottery making. For pottery sellers and makers, this view of pottery making is unsurprising. Although every member of our sample of 14 pottery makers and 11 pottery sellers said that they were proud of pottery making, they all gave highest priority to pottery making as business rather than as culture because it is their means of making a living. Even from the pottery users' (local and migrant) side, we received the same answers. Moreover, it is interesting to note that non pottery users are also proud of pottery making in the village. Since we have few examples of pottery users and non pottery users compared with makers and sellers, it is difficult to analyze their responses in detail. However, while pottery making is not directly related to their, they have a strong sense of the value of pottery making as a source of income for villagers and as a traditional culture.

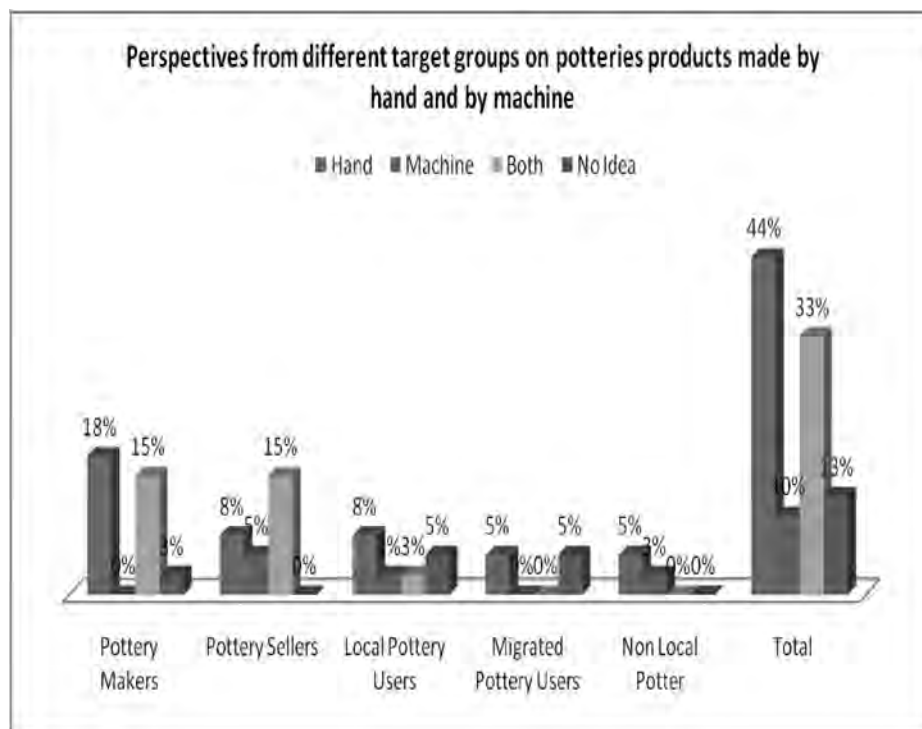
As for the question of whether pottery making is important for the villagers or not, most interviewees state that they consider it very important. The reasons for these answers are almost the same as for previous question, regardless of the target group.

3.6.2 Hand Made or Machine Made?

From the villagers' point of view, pottery completely made by machines has little value as a culture – only 10% out of our total samples chose machine-made pottery over hand-made pottery. (Figure 3) They mentioned that machines save time and energy, and produce more pottery of higher quality. Some people also said that machines could make more attractive products and produce them faster than those made by hand. Nevertheless, pottery made by hand has more value as a culture for the people, because it reflects long and ancient Khmer tradition. Their ancestors historically made pottery by hand, and thus the villagers think it is worthwhile to continue making it by hand. Another reason is that machines can only be used to make new-style pottery (souvenirs), while traditional types can be made only by hand. Still it is true that many villagers do not mind whether the pottery is made by machines or by hand because both have their own advantages. As shown in figure 3, the percentage of villagers who answered “Both” surpassed those who chose “Machine” (33% out of the total samples). Some respondents explain that, in order to produce a good pottery, they need to make it by machine but carve it by hand. A good reason we

obtained is that pottery cannot continue to be made by hand forever; the introduction of machines is simply helpful in saving labor and time. Thus, combining machines and hand seems to yield the best result for potteries as a culture.

Figure 4 Villagers' Views of Pottery 2



Source: Authors

4. Policies Regarding Pottery Making

4.1 The Ministry of Culture and Fine Arts

At present the Cambodian government has no budget to spend on preserving and promoting the culture of pottery making in the province at all. But the government never overlooks this kind of culture. On behalf of the government, the Ministry of Culture and Fine Arts, especially the Department of Fine Arts and Crafts and related offices, are trying hard to coordinate with international organizations in order to conduct training as well as to provide some necessary equipment to support and promote pottery making in Kampong Chhnang Province in general, and in Andong Russey village in particular.

The Department has conducted some research on the possibility of the villagers forming collective groups of pottery makers in order to more effectively provide support from the government and related organizations. It has also tried to make sure that, regardless of modernization, all designs and styles utilized in products should be Khmer. In order to realize this, the Cambodian government is considering the enforcement of copy right laws which may be put into practice soon. Although the laws serve many economic and social purposes, they will mean that the styles used in pottery making cannot be illegally copied without appropriate permission. This is also aimed at preventing villagers from employing foreign styles in their pottery making. The Department also plans to start collecting

information about the ways of making pottery and to develop it into a formal written document for future generations.

It is evident from the interview that the Cambodian government has always been keen to support and promote the pottery making in the province. Although the Department has no budget for support, the government always tries to call for international help to provide either techniques or equipment to the pottery makers in the province. The national government also tries to promote Khmer culture by enforcing copy right laws, and by collecting information to create teaching materials for the younger generation. These kinds of policies are very important in for Cambodia in its present situation. Due to the effects of globalization, the country has experienced dramatic changes during the last decade. Thus, copy right laws are seen to be an important step. Formal written documents and law enforcement may be a good solution to the problem of preventing the decline of traditional culture.

4.2 The Department of Culture in Kampong Chhnang

The Department of Culture in Kampong Chhnang province is also ready to help the villagers, although again there is no budget available. This can be done by providing ideas, technical assistance, and notably communication with organizations, in order to improve pottery making as well as to improve the living conditions of the villagers. “Increasing the living standard of the people in Kampong Chhnang, providing technical assistance and helping them find markets for their products are the main purposes of the Department,” the deputy director of the Department said. Although the Department does not help directly, it has worked very closely with many international organizations such as CLAIR Singapore to provide the villagers with techniques and ovens for firing pots. The local clay was brought to Japan, in order to check its quality, and a few talented pottery makers from Andong Russey Village were chosen to travel to experience the state of pottery making in Japan, in September 2007.

5. Issues at Present

5.1 Problems for Villagers

From the pottery makers’ side, being dependent on the weather is a constant concern. For traditional kinds of pottery, time is needed for the clay to dry before firing. If the weather is good, they are able to fire a lot of pottery. As the older women usually engage in making traditional-style pottery, health problems also affect production. On the other hand, their daughters tend to engage in making only new-style pottery. This phenomenon might affect the future decline of traditional pottery as discussed earlier.

From the sellers’ side, transportation and traveling long distances to sell pottery seem to be the main problems. When they sell to the middlemen, their profits are usually lower than when they travel and sell by ox cart. When traveling long distances to sell their products, however, they face many risks – fragileness and damage to the pottery are among their most pressing concerns.

Pottery makers and pottery sellers often have difficulties because of the small market for their pottery products. Their sales of pottery depend mostly on the selling conditions of the middlemen. They expect more international help, especially in securing more markets for their pottery.

5.2 Training Programs

Training programs provided by NGOs or Non Profit Organizations (NPOs) have tended to be temporary so far. According to our interviews, the villagers need more training programs and want to improve their knowledge and technique. They hope that training programs will come often, and that permanent training schools will be established.

The main problem is the relatively limited access to training programs. Before the training programs appeared, the village used to be homogenous in terms of knowledge and there was little variation in income. But after the training programs and supporting international organizations came, differences among the villagers emerged. During the interview, many villagers called for more equal opportunities.

Only a few villagers are able to travel abroad and witness and experience the techniques used in developed countries such as Japan and the USA. When they return to their village, they rarely have enough opportunities to share their knowledge with other villagers. A few of the villagers know how to color pottery, although their skill levels are still not high enough. As one villager stated, this kind of skill is not shared among many villagers.

5.3 Coordination

As mentioned in the previous part, the Cambodian government has no national budget to spend on promoting the culture of pottery making. It is with the help of international organizations that Khmer pottery can be exported to other countries. In this sense this international help is essential in supporting the culture and industry of pottery making.

In order to yield better results, international organizations are expected to work hand in hand with local authorities. These local authorities might know more about the needs of the local people than the authorities at the national level. With enough coordination between local authorities and supporting groups, the necessary information will be effectively spread to all villagers, and thus people would be well informed at the local level. Consequently, the voice of the local villagers would reach the international organizations more effectively.

6. Conclusion

As we discussed in this report, the villagers of Andong Russey are preserving their tradition of pottery making, which is a unique culture that has continued through many generations. Pottery making is deeply rooted in their daily lives and is related to various aspects of the village.

At present two kinds of pottery – traditional and new-style – coexist in Andong Russey. The new-style pottery emerged in 1998, when the village received international help for the first time. Accordingly, village life, along with the new styles and methods of pottery making, has been gradually changing while maintaining the pottery making tradition. Pottery making is becoming a more important source of income for many people. It is a culture that feeds the local villagers rather well. Along with pottery makers and sellers who are directly involved in the promotion of Khmer pottery, local users are also enjoying and supporting the preservation and development of pottery making in various ways. The combination of tradition and invention has brought about a unique culture based on pottery making. One example is the emergence of water purifying pots which are reported to be a cheap and handy way of

cleaning water, and which are beneficial to the health of the villagers as a whole. In addition, help from supporting organizations has propelled Khmer pottery to the international stage. Many villagers in Andong Russey seem to be responsive to these opportunities, adopting new styles and techniques.

On the other hand, it is important to note that most villagers still think highly of hand-made pottery, as part of their culture, as opposed to machine-made products. The role of women in pottery making, and how the villagers value pottery has not changed dramatically. Thus old pottery is still being made in the traditional way in spite of the introduction of modern techniques. These facts give us the impression that the villagers would never abandon their traditional culture, by keeping a balance between the old and the new.

Nevertheless, some issues can be foreseen from our findings. What concerns us most is the future decline of traditional pottery. While these products are mostly made by older women, younger women tend to engage in production of new-style pottery only. Without action or efforts to transfer the traditional skills and knowledge to the following generations, this cultural heritage might soon disappear.

The developing gap among the villagers in economic and sociological terms is also a new phenomenon. While coordination problems appear to be the main issue for the officials and supporting organizations, market concerns the villagers most. In order to improve living conditions while supporting the culture of pottery making in Kampong Chhnang, every related organization and agency are expected to work hand in hand. Obviously, no single effort can work well, but the following possible recommendations can, to some extent, provide some clues on how to deal with the current challenges in the village.

On the national level, spending some parts of the national budget effectively on the culture of pottery making would make a significant difference, notably when international helps dry out. Collecting necessary information and developing pottery making teaching materials for younger generations could be one of the keys. Promoting pottery as a Cambodian culture would empower pottery makers as well as local people while broadening economic opportunities for self-sufficiency. Creating more markets for pottery products will further act as an incentive for pottery makers to preserve and promote their pottery. Spreading clear and sufficient information at the local level will also bring better results.

At the Provincial and District Level, providing clear information to all villagers is a good way to reduce the inequalities among the villagers and increase their participation. Because more is known at the provincial and district level about the real situation in the village, working closely with international organizations seems to be a good option.

As mentioned earlier, villagers are expected to share any knowledge they obtained from training programs or experience abroad. Thus, it is recommended that those who have had the chances to acquire more knowledge should take charge of sharing their techniques and improving life in the village. This is not an easy path in every developing country where the majority of people barely survive on every penny they can earn – every level of authority and the villagers themselves have to work together closely. The government must ensure equal opportunities for every individual in the village, and policies to encourage them to share knowledge are indispensable. The villagers must be sufficiently convinced so that they feel able to lose a little for the gain of the community. Villagers also have to be ready to speak out about their real needs and their voices should be strong enough to be heard.

Finally, for supporting organizations, cooperation at not only the national but also the local level will help achieve their overall goals. As we found out from the villagers, skill training programs and equipment are not widely distributed and villagers are not necessarily well informed. Developing the market for pottery products appears to be of the most concern for the villagers and supporting international organizations could take this into account. Considering all these issues and conditions would help to achieve a grass-roots empowerment of the villagers based on their unique culture of pottery making.

End Notes

- ¹ Sarthi Acharya, Kim Sedara, Chap Sotharith and Meach Yady. *Off-farm and Non-farm Employment: A Perspective on Job Creation in Cambodia*. Cambodian Development Research Institute, Phnom Penh, 2003.
<<http://www.cdri.org.kh/webdata/download/wp/wp26e.pdf>>
- ² Quoted from the Speech of the Deputy Director of Department of Culture in Kampong Chhnang Province.
- ³ According to the deputy director of the Department of Fine Arts and Crafts, Ministry of Culture and Fine Arts.
- ⁴ Moeun Chhean Nariddh, “Pottery skills from Stone Age are dying out,” Phnom Penh Post, Issue 3/20, October 7 - 20, 1994. <<http://mcnnews.wordpress.com/2007/09/29/pottery-skills-from-stone-age-are-dying-out/>>
- ⁵ According to one informant, the association was German, and the association fee was 3,000 riel.

References

- Akai, Yousuke, “Mashiko potters reviving Cambodian craft,” in asahi.com, April 13, 2007.
<<http://www.asahi.com/english/Herald-asahi/TKY200704130093.html>> (May 18, 2007)
- CLAIR SINGAPORE: The Japan Council of Local Authorities for International Relations, Singapore, August 2006.
<www.clair.org.sg/newsletter/Clair_Aug06.pdf> (May 18, 2007)
- Green, Robert. Cambodia. San Diego, Calif. : Lucent Books, 2003.
- Nariddh, Moeun Chhean .“Pottery skills from Stone Age are dying out,” Phnom Penh Post, Issue 3/20, October 7 - 20, 1994.
<<http://mcnnews.wordpress.com/2007/09/29/pottery-skills-from-stone-age-are-dying-out/>>
(October 15, 2007)
- National Institute of Statistics (NIS) of Cambodia, Ministry of Planning, Cambodia, “Kampong Chhnang Surveys”, in Cambodia Demographic and Health Survey 2000.
<<http://www.nis.gov.kh/SURVEYS/CDHS2000/prov04.htm>> (May 18, 2007)
- Sarthi Acharya, Kim Sedara, Chap Sotharith and Meach Yady. 2003. *Off-farm and Non-farm Employment: A Perspective on Job Creation in Cambodia*. Cambodian Development Research Institute, Phnom Penh.
<<http://www.cdri.org.kh/webdata/download/wp/wp26e.pdf>> (June 29, 2007)
- Ueda, Hiromi, and Tomoko Okada, *Kanbodia wo Shirutameno 60 sho*, Tokyo: Akashi-shoten, 2006.