



Participatory Monitoring and Evaluation System for Sustainable Community Forestry Management

An Experience from Kampong Thom Province



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By

Kampong Thom Forestry Administration Cantonment

Provincial Environmental Department

Community Forestry Research and Monitoring Project, CBNRM Learning Institute
NRM Component, Rural Development Program Kampot-Kampong Thom, GTZ/DED

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Copies available from:

CBNRM Learning Institute

#30, Street 9, Sangkat Tonle Bassac, Khan Chamcamorn. P.O.Box 2509, Phnom Penh, Cambodia.

Tel: +855 (0)23 994 935 / Fax: +855 (0)23 224 171

E-mail: info@cbnrml.org / office@cbnrml.org Website: www.cbnrml.org

Researched and Written by:

Srey Marona
Diepart Jean-Christophe
Tol Sokchea
Preap Socheat
Meas Sothunvathanak
Hou Vong Vichheka
Nop Chhaya

Contributed by:

Meam Sito
To Sothea
Vann Sai
Im Mareti
Heng Thoan
Choub Sou
Chhun Moeun
Orm Im
Phan Try
Ul Keb

Edited by:

Srey Marona
Diepart Jean-Christophe
Carson Toby
Rebecca River- Guieb
Janet Taylor

Design and Layout:

Hay Sochet

Supporting Partners

Community Based Natural Resource Management Learning Institute (CBNRM LI)

Community Forestry International (CFI)

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LIST OF ACRONYMS

CBNRM	:	Community Based Natural Resource Management
CBNRM LI	:	Community Based Natural Resource Management Learning Institute
CBO	:	Community Based Organization
CF	:	Community Forestry
CFI	:	Community Forestry International
CFRM	:	Community Forestry Research and Monitoring project
CFMC	:	Community Forestry Management Committee
CFO	:	Community Forestry Office
CIFOR	:	Centre for International Forestry Research
CPA	:	Community Protected Area
DED	:	Deutscher Entwicklungsdienst (German Development Service)
DNCP	:	Department of Nature Conservation and Protection
DoE	:	Department of Environment
FA	:	Forestry Administration
FAC	:	Forestry Administration Cantonment
FAO	:	Food and Agriculture Organization of the United Nations
FAT	:	Forestry Administration Triage
GTZ	:	Deutsche Gesellschaft für Technische Zusammenarbeit (German Technical Cooperation)
IDRC	:	International Development Research Centre of Canada
M&E	:	Monitoring and Evaluation
NCFP	:	National Community Forestry Program
NGO	:	Non Governmental Organization
NRM	:	Natural Resource Management
NTFP	:	Non Timber Forest Products
PAR	:	Participatory Action Research
PCI	:	Principles Criteria Indicators
PED	:	Provincial Environmental Department
PM&E	:	Participatory Monitoring and Evaluation
RDP	:	Rural Development Program Kampot - Kampong Thom
RECOFT	:	Regional Community Forestry Training Centre
RGC	:	Royal Government of Cambodia
SCBFM	:	Sustainable Community Based Forest Management



FOREWORD

Community Forestry International (CFI) has been pleased to be a supporting partner in the Community Forestry Research and Monitoring (CFRM) project. The activity was implemented by the CBNRM Learning Institute and the Rural Development Program of German Technical Cooperation (GTZ-RDP) between December 2005 and December 2007. This publication is an important output of the project and draws together five case studies on Community Forestry (CF) experience in Kampong Thom province. It is significant not only in documenting the experience of local communities in implementing Community Forestry, but also in building the capacity of local researchers to conduct participatory research.

While Community Forestry has been implemented in Cambodia since the early 1990s, there has been a dearth of research and documentation available on Community Forestry processes, success and challenges, particularly from the perspective of field-level practitioners and community members themselves. Information and analysis from the field is critical for guiding financial and technical support and developing and revising government policies.

The five case studies in this book identify some key issues such as the need for better information flows between CF committee representatives and CF community members, the potential for development of non timber forest product (NTFP) enterprises and markets, and the impacts of land use change and decentralization policies. The studies also provide recommendations to guide policymakers and other CF practitioners.

Community Forestry in Cambodia is currently at a crucial stage of expansion. The legal framework for Community Forestry was completed in mid-2006 and the first ten sites were legally approved in Siem Reap in November 2007 in a landmark ceremony. During the ceremony, the keynote speaker, the Head of the Forestry Administration, His Excellency Ty Sokhun recommended that approximately 20 percent of Cambodia's forest area be managed under Community Forestry. More than 300 additional communities are in the pipeline for approval, following the steps and guidelines to seek legal recognition. Concurrently, land speculation is accelerating and communities in many areas are facing extreme pressure to clear or sell forest lands.



The CBNRM Learning Institute and GTZ-RDP case studies recognize both the challenges and potential for Community Forestry. It is hoped that research such as this will be useful in reinforcing the importance of Community Forestry as a national forest management strategy while at the same time identifying salient issues for action in order to further improve implementation and impact.

Using the Center for International Forestry Research's (CIFOR) Principles, Criteria and Indicators (PCI) framework as a basis, the Community Forestry Research and Monitoring (CFRM) project has also drafted a toolbook for the monitoring and evaluation (M&E) of Community Forestry in Cambodia. While such frameworks may be adjusted to fit unique local situations, the toolbook will provide useful guidance for improving M&E of Community Forestry throughout the country.

CFI would like to congratulate the authors of this book and express its appreciation to all of the individuals and partners involved as well as to its donors The John D and Catherine T MacArthur Foundation and USAID.

Amanda Bradley

Country Director

Community Forestry International





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The Community Forestry Research and Monitoring (CFRM) Team would like to thank many villagers in Chong Da, Choam Thnanh and Kbal Bey as well as the commune council of Tbong Krapeu for their help and support during the survey. Their involvement in the activities has provided many valuable information, knowledge and experiences for the project.

Also many thanks need to be expressed to the team leader of the Rural Development Program Kampot-Kampong Thom, the Kampong Thom Provincial Coordinator and his staffs for the technical assistance and for providing transportation facilities during the project.

We extend grateful thanks to Kampong Thom Forestry Administration at Cantonment, Division and Triage levels for their strong support and cooperation. A special thanks is due to Mr. Tep Nheata, vice-chief of the Cantonment for his constant support.

Srey Marona

Program Coordinator

CBNRM Learning Institute



DEFINITION OF TERMS

Community Forestry Sub Decree - Legislation passed in December 2003 that gives a number of directives about how community forestry organisations should be established and what official documents are required. It specifies, for instance, the eight steps involved in establishing a community forestry area from its initial formulation to how the Community Forestry Management Committee should be structured, boundary demarcation and planning. It also covers by-laws, regulations, agreements and management plans. To fulfil the eighth and final step, CF organisations are required to establish a mechanism to monitor, document, analyse and disseminate experiences.

Participatory Monitoring System - A field level approach facilitated with communities that uses the tool of principles, criteria and indicators (PCI). It is also a flexible system that can be adapted to each specific community forest context. This terminology and concept is originally from the Centre for International Forestry Research (CIFOR).

Principles - Important rules or core concepts that are clear and concise; a primary framework to guide practice; a justification for the other elements of the PCI tool.

Principles of Sustainable Community Forestry Management - In the case of this initiative, there are four principles of sustainable community forestry management: forest health is maintained; people's well-being is assured; community well-being is assured; the external environment is supportive.

Criteria - Distinguishing elements or sets of conditions or processes by which a forest characteristic is judged; a 'second order' principle that adds meaning and 'operationality' to a principle without itself being a direct measure of performance.

Indicators - Measurements of the criteria; definite variables that respond to the criteria; must be clear and relevant to the criteria and be measurable.

Verifier - Data or information needed to evaluate the indicators; must be clear, definite and related to the indicators.



EXECUTIVE SUMMARY



EXECUTIVE SUMMARY

With the vision of sustainable Community Forestry management, the Community Forestry Research and Monitoring Project aimed to enable CF management committees and local Forestry Administration (FA) staff to develop principles and tools for monitoring the development of CF organizations and evaluating their performance. Three Community Forestry organizations from Kampong Thom province were selected as key partners of this experimental project that took place over a two years period.

The book is divided into five chapters. In the first chapter, Srey Marona and Diepart Jean-Christophe briefly give an overview of the development of CF in Cambodia and describe how this monitoring initiative is an original contribution to support Community Forestry management in Cambodia.

Chapter two by Srey Marona and Diepart Jean-Christophe explores the overall process followed by the project and the key concepts used to develop the monitoring and evaluation system with three Community Forestry organizations in Kampong Thom.

In the third chapter, Srey Marona, Tol Sokchea and Diepart Jean-Christophe present and analyze the results of a baseline and follow-up survey carried out during the project in order to evaluate the progress of Community Forestry management. These surveys were conducted at the household level and provided a quantitative and qualitative datasets used all through the project. They serve as evidence-based information to reflect on CF management, improve its performance and also as input data for a case study exercise.

Chapter four has been written in a collaborative effort by local Forestry Administration staff, facilitators, researchers and CF management committees. It follows a case study approach to focus on key challenges of CF:

- On the basis of the experience of Tbong Krapeu commune, Tol Sokchea and Meam Sito focus first on how Community Forestry management is integrated into Decentralized Natural Resources Management policies.
- Focusing on one CF in Tbong Krapeu commune, Hou Vong Vichheka, Meam Sito, and Tol



Sokchea analyse the effects of rapid land use change and how Community Forestry is affected or responds to the impacts.

- Looking at Kbal Bey village, Nop Chhaya and To Sothea detail the differentiated use and relevance of timber and non timber forest products to the rural livelihoods.
- Meas Sothun Vathanak and Im Maredi present the opportunities to develop a community-owned marketing system for non-timber forest products in Choam Thnanh village.
- Information flow inside the Community Forestry organization in Choam Thnanh is presented by Preap Socheat and Vann Sai in the fifth case study.

The key lessons learned from the initiative come under scrutiny in Chapter 5 by Srey Marona and Diepart Jean-Christophe. They first conclude on the monitoring and evaluation process, then they look at the key challenges for CF development as highlighted in the case studies. They also review opportunities to scale out the positive impact of this project to be beneficial to other CF sites. Ultimately, they propose operational recommendations to mainstream the monitoring and evaluation system in the overall CF development in Cambodia.

The main hypothesis underlying this project was that a monitoring and evaluation system designed and implemented by CF organizations and local stakeholders can contribute to sustainable CF management. The outcomes of the project validate this core idea.

In the first place, the M&E process is instrumental in strengthening the capacity of diverse local stakeholders involved in CF management. Monitoring and Evaluation, as a transversal process in Community Forestry development, offers an interesting opportunity of “learning-by-doing” as it addresses comprehensively the different dimensions of CF management. As capacity development and sustainability are twin forces, it seems clear that monitoring and evaluation can contribute to the long-term development of CF.

Second, the design and the implementation of a monitoring framework by local stakeholders involved in the development of Community Forestry can act as an excellent communication tool between those stakeholders. Principles, criteria and indicators, when agreed upon by all partners, form the skeleton of the dialogue. Later, the implementation and the documentation of the framework provide an evidence-based assessment of CF development and its evolution. This is of crucial importance when it comes to sustainability of such a multi-stakeholder process as Community Forestry development.



Third, the first-hand information produced during the M&E process allows specific challenges of CF development to be identified, which is a useful from the perspective of CF management. M&E frameworks systematically address and document the evolution of CF and constitute a ground for decision-making. M&E provides sound and timely information for the CF management committee to take decisions and actions.

Lastly, the experiences and lessons learnt from this initiative have shown that the role monitoring and evaluation can play in the sustainability of CF management is conditioned by key factors. The long term and sustained benefits can be gained only if the various stakeholders involved commit themselves, with a positive attitude, to effectively plan, implement, monitor and evaluate the impact and performance of Community Forestry. This requires in turn strong commitment and time investment of facilitators and trainers to accompany the process.



Chapter One



OVERVIEW OF COMMUNITY FORESTRY: INTRODUCING THE PARTICIPATORY MONITORING AND EVALUATION PROCESS



OVERVIEW OF COMMUNITY FORESTRY: INTRODUCING THE PARTICIPATORY MONITORING AND EVALUATION PROCESS

Researched and Written by:

Srey Marona, Program Coordinator - CBNRM learning Institute

Diepart Jean-Christophe, NRM Advisor - GTZ/DED Rural Development Program Kampot - Kampong Thom

At the beginning of 2000, the Royal Government of Cambodia embarked on important reforms of its forestry sector. It acknowledged the multiple perceptions, interests and objectives of the numerous forest interest groups of the country's society in the region of the Mekong basin and at the global level regarding the conservation and sustainable management of forest resources. Among others, the objectives of Forestry Administration policy is, within the set of national goals, to achieve the maximum involvement of the private sector and participation of the local population in order to ensure food security, poverty reduction and socio-economic development (FA, 2002).

One of the pillars of these reforms was the recognition of the rights of local forest user communities to establish, in partnership with the Forestry Administration (FA), Community Forestry (CF) organizations. Fundamentally, these community-based organizations aim to protect and manage specific forest areas that the rural communities traditionally use for timber and non-timber forest product collection. The new rights granted to forest user communities are expressed in article 40 of the new Law on Forestry (2002) and are further formalized in the sub-decree on the management of CF released in 2003. The Prakas on the establishment of CF was released in 2006. This text gives a number of directions on how the establishment of CF should take place and what official documents are required for its official recognition. It proposes a sequenced process of eight steps (figure 1).

Community Forestry in Cambodia is currently at a crucial stage of expansion. The legal framework for Community Forestry is completed and the first ten sites were legally approved in November 2007 in Siem Reap. According to the last National Community Forest Program (NCFP, 2008), more than 188 additional sites are in pipeline to be officially recognized as potential areas for establishing Community Forestry. Once the sites are recognized as potential



areas for Community Forestry, the cantonments are able to deliver area agreements with those Community Forestry management committees who can formally provide all the supporting documents. These include a list and details of all CF members, the official recognition of the CF Management Committee by relevant authorities, the internal regulation of the CFMC, the CF demarcation documents and the CF regulation.

That said, numerous initiatives have been flourishing for many years all over the country to promote decentralized forest management. Community Forestry has been a reality in Cambodia since the late nineties. The main challenge for those existing Community Forestry organizations is to comply with the newly legalized framework and procedures while continuing to operate as legitimized community-based organizations. This requires perseverance, patience and mutual understanding from FA staff working in the field and who have to implement the new guideline, from CF management committees who have to review their own legitimacy and most importantly from the CF members.

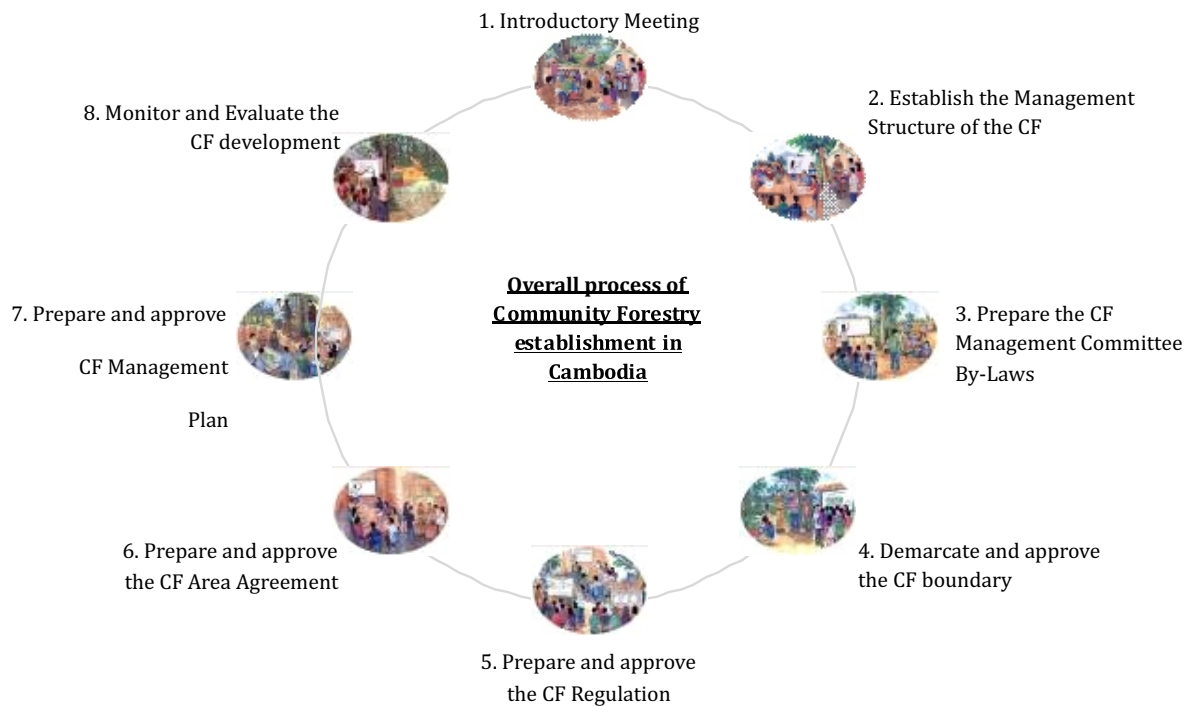
The eighth and final step of this “new” legal procedure consists of “Monitoring and Evaluating” the development of Community Forestry. In order to ensure sustainable CF management, it is agreed that CF organizations should develop their own tools and principles for monitoring and evaluating their community forest as well as the social organization that governs its management. An M&E system should enable the CF management committees and the local FA (triage, division and cantonment levels) to systematize the activities implemented by the CF groups and to follow up the overall development of the CF area. Nevertheless, this final step assumes that the CF organization has already implemented substantial activities (the election of the CF management committee, the demarcation of the forest or the establishment of CF regulations) and has a certain maturity in the daily management of the community forest and its organization. That is the reason why this step is still in its infancy in the Cambodian context as CF is a relatively new institutional arrangement for rural communities, CF supporters and FA alike.

An original initiative, the Community Forestry Research and Monitoring Project tried to address this challenge by developing an M&E system with three CF organizations in Kampong Thom province. With support from Community Forestry International (CFI), the project was initiated by the CBNRM Learning Institute and the GTZ/DED-supported Rural Development Program Kampot-Kampong Thom in close partnership with the Forestry Administration (Kampong Thom cantonment and Tang Krasang triage) and Kampong Thom Provincial Department of



Environment. It is part of their overall effort to support CF organizations and enhance a fruitful forestry co-management in Cambodia.

Figure 1. The overall process of Community Forestry establishment in Cambodia



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Chapter Two



M&E SYSTEM FOR SUSTAINABLE COMMUNITY FORESTRY MANAGEMENT: EXPLORING THE PROCESS AND KEY CONCEPTS



M&E SYSTEM FOR SUSTAINABLE COMMUNITY FORESTRY MANAGEMENT: EXPLORING THE PROCESS AND KEY CONCEPTS

Researched and Written by:

Srey Marona, Program Coordinator - CBNRM Learning Institute

Diepart Jean-Christophe, NRM Advisor - GTZ/DED Rural Development Program Kampot -
Kampong Thom

1. INTRODUCTION

The Community Forestry Research and Monitoring Project aimed to provide the community forestry management committees and local forestry administration with tools and capability to monitor and evaluate the development of community forest as well as the social organization that governs its management. This overall objective implies that a number of activities, including the design, the test and the implementation of an M&E framework, were carried out with different stakeholders involved in Community Forestry.

The objective of this opening contribution is to clarify the concepts used and explains the content and flow of the activities as they were implemented during the project.

2. THE M&E PROCESS AT A GLANCE

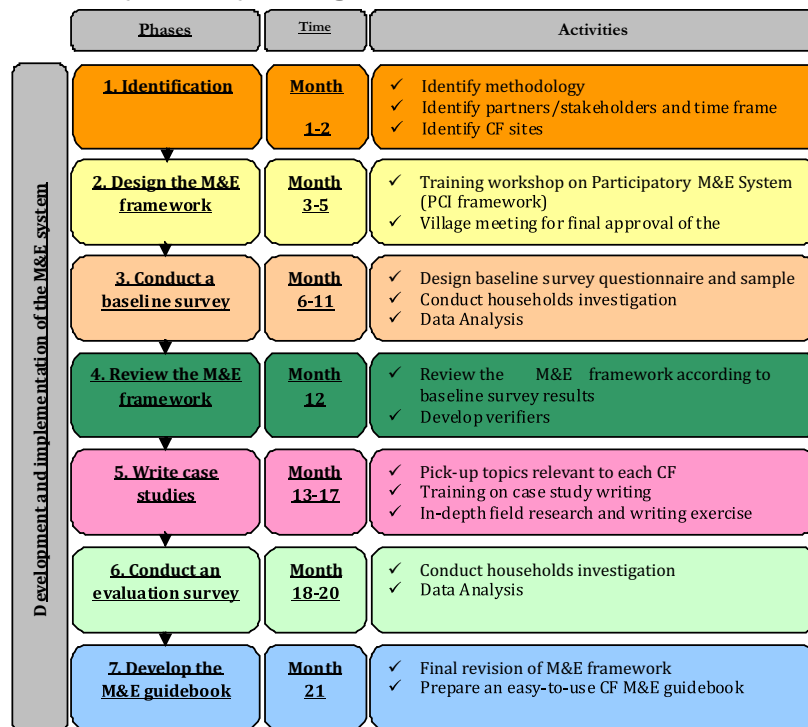
In order to design and implement the M&E system with the CF organizations, the project has been structured in consecutive phases taking place over the course of 21 months (from beginning 2006 to mid 2007). The project was designed with considerable time flexibility to ensure that the ownership of the process stays with the local CF management committees. The overall process is described below in figure 1. After identifying the project's partners and the overall methodology, the facilitator team together with the three selected CF management committees designed a first draft of the M&E system using a framework of three monitoring levels (Principles-Criteria-Indicators). This framework aims, ultimately, to identify and measure the level of development of the CF organization. The draft framework allows for the preparation



of a baseline survey in the respective CF sites in order to collect information from the CF members and measure, at the present stage of development, what the strengths and weakness of each CF organization are. The results of the baseline survey enable, on the one hand, a review of the M&E framework to be undertaken - to make it consistent with the specificity of each CF site - and, on the other hand, to identify topics of interest that can be highlighted and further analyzed via case studies. On the basis of the base-line survey (same questionnaire and same sample), an evaluation survey is conducted to analyze the evolution of CF management. Eventually, the lessons learnt from the different phases are synthesized and help towards the finalization of the M&E framework, and in the design of an easy-to-use monitoring field tool-book that both CF management committees and local FA staff can use as a management and communication tool to follow up the activities implemented by the CF organizations.

This local-level monitoring and evaluation system is meant to be a participatory system in which the community forestry organizations define themselves, together with local Forestry Administration staffs, their own indicator for Community Forestry monitoring and evaluation.

Figure 1: The overall process of development and implementation of the M&E system for sustainable community forestry management





3. THE M&E SYSTEM IN THE MAKING

3.1. Selecting the Community Forestry organizations for the M&E initiative

Three CF organizations were selected to implement the pilot project (table 1 and map 1). They were established shortly after 2000, at the early stage of the Rural Development Program in Kampong Thom. The approach initially developed by the program (a village-based NRM approach) was holistic in the sense that it aimed to integrate forestry with fisheries management and environmental protection. But with the emergence of new legal supporting documents on Community Forestry, the NRM committees and NRM regulations were reformed into Community Forestry Management Committees and Community Forestry regulations to be fully in line with the newly approved sub-decree. Yet, the management committees have continued to protect and manage the same forest areas. The reform process from the village-based NRM approach to that of Community Forestry was conducted with the comprehensive involvement of the commune authorities in line with the new decentralization process.

The community forest in Chong Da village is divided in two parts: a heavily degraded forest (149 ha) and a high value forest (4.5 ha). The degraded forest, Prey Tbong Domrei, is a typical dry dipterocarp deciduous forest where the dominant species is “Tbeng” (Dipterocarpaceae, *Dipterocarpus obtusifolius*). The high-value forest is a semi-evergreen dipterocarp forest where the dominant species are “Choeu Teal” (Dipterocarpaceae, *Dipterocarpus alatus*), “Pdeak” (Dipterocarpaceae, *Hopea helferi* (Dyer) Brandis) and “Popel” (Dipterocarpaceae, *Hopea recopei* Pierre). The community forest is located not far from Kampong Thom city (about 20 km). The villagers live on the fringe of an area where there is overwhelming conversion of forest area to chamcar plantations. They thus wished to create a community forest to maintain access to non-timber forest products and grazing land for their cattle. That CF area was selected for the monitoring initiative because the CF management committee had been active in dealing with land encroachments from the surrounding chamcar plantations.





Table 1: Basic Features of the Community Forestry organizations selected for the M&E initiative

Name of Community Forestry organization	Date of creation	Village	Commune	District	CF Area	Number of individual CF members	Number of households among CF members
Prey Tbong Domrei	2001	Chong Da	Tbong Krapeu	Steung Saen	153 Ha	548 (51% female)	221
Prey Cheung Phum	2002	Choam Thnanh	Tipou	Santuk	149 Ha	208 (49% female)	84
Prey Kbal Bey	2002	Kbal Bey	Tipou	Santuk	768 Ha	120 (48% female)	49

Source: GTZ-RDP, Kampong Thom, 2007

The community forest in Choam Thnanh village is a two-block forest area (149 ha) located in close vicinity to the village itself. The first block is a degraded dry deciduous dipterocarp forest while the second block is a high value semi-evergreen forest. The forest “Prey Cheung Phum” has received special care from the villagers since the early nineties and its designation as a CF area was mainly a means of officially recognizing their long-enduring efforts to protect it. This CF was thus selected because of the enthusiastic involvement of the village leaders and villagers in protecting the forest in order to ensure equitable access to timber and non-timber products.

The CF area in Kbal Bey village is a large forest divided into different management blocks (four blocks amounting to 768 ha). Overall, the forest has the same natural characteristics as the other two but its quality differs greatly according to each of the management blocks. The CF management committee decided to designate the complete forest area of the village a community forest in order to avoid putting greater pressure on any section that would not otherwise have been protected under the CF arrangement: this would have resulted in higher forest degradation overall.

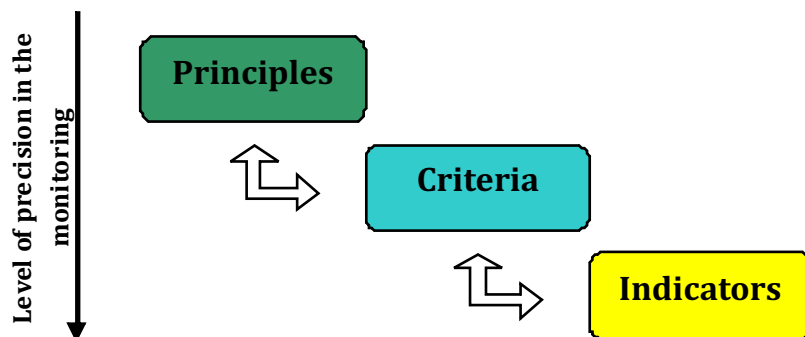
3.2. Key Concepts and M&E framework

The CF M&E system rests on a framework that features three levels: the principles, the criteria and the indicators. Each of these three levels of monitoring gives a degree of precision about the information used to monitor the development of the CF organization. The indicators constitute the most accurate level while the principles give the most general aspects of the monitoring



framework. The criteria constitute an intermediate monitoring level between the indicators and the principles. Figure 2 illustrates the logic of the M&E framework: a set of indicators is designed to detail one specific criterion and, in turn, different criteria are used to define one specific principle.

Figure 2: Hierarchy of the three M&E levels in the PCI framework



The principles outline the general domains that need to be addressed to enhance sustainable CF development. Four principles have been identified:

- The forest health is maintained
- People's well-being is assured
- Community well-being is assured
- External support is effective.

These four principles cover the different aspects of community forestry management and it is assumed that their positive combination would contribute to its sustainability. The forest health refers to the demarcation and zoning of the forest area and the technical management of timber and non-timber forest products as well as the forest ecology. The people's well-being focuses on

Why a PCI framework for monitoring and evaluating CF organizations

One can wonder why a usual monitoring framework using the standard terminology (objectives-outputs-indicators) has not been used here. In fact, the M&E process is designed with the vision of Sustainable CF Management. It is thus quality-oriented. It aims to evaluate and assess the quality and performance of CF organizations. The usual monitoring framework is in turn less adequate to address quality because mainly output-oriented and limited to a “project” time frame.



the different benefits extracted from the forest by the people and the mechanisms through which CF members share these benefits. The community well-being refers to rules and regulations endorsed by the CF management committee for the daily management of the CF and for defining responsibilities and rights of access to the CF. Finally, the external support focuses on the linkages between the CF organization and the Forestry Administration as well as with the CF facilitators. It also refers to the marketing system that can support the CF organization in selling and generating cash revenue.

The principles are further matched against criteria in order to fine-tune the different aspects of sustainable community forestry management. For instance, the elements (criteria) that contribute to maintaining the forest health are numerous. They include the demarcation of the CF area, the management of timber and non-timber forest products, the improvement of biodiversity or the management of the ecological system as a whole (see figure 3).

Figure 3: Screen shot of the M&E framework related to the 1st principle of SCFM

1st Principle: Forest health is maintained	
Criteria	Indicators
1-1- Community Forestry area is clearly demarcated and zoned	1-1-1- Signal and posts along CF border are established
	1-1-2- Division of the forest into different blocks (use vs. protection) is established
	1-1-3- Mechanisms to reduce forest land encroachments are available for local community
1-2- Non-timber forest products (NTFPs) are properly managed	1-2-1- NTFPs utilization plan is prepared
	1-2-2- Proper methods for collecting NTFPs are put in place
1-3- Forest biodiversity is improved	1-3-1- Reforestation plan is designed and implemented
	1-3-2- Wood volume is increasing
	1-3-3- Mother trees are protected
1-4- Forest ecology is managed	1-4-1- Soil erosion is reduced
	1-4-2- Water resources inside CF are protected
	1-4-3- Wildlife species are protected



Indicators are even more detailed monitoring instruments that serve to measure the fulfillment of their respective criteria. The specificity of indicators is that they are quantitatively measurable. They provide the empirical basis to determine the level of development of the Community Forestry organization.

Figure 3 illustrates part of the PCI monitoring framework related to the first principle of sustainable community forestry management (forest health is maintained). It shows the four criteria that the team identified to define the principle as well as the indicators related to those criteria. This M&E framework constitutes the starting point of the project and the basis for the following activities. To ensure ownership at the local level, the frameworks were discussed and approved during a village meeting in the CF sites.

3.3. The baseline survey and implementation

On the basis of the M&E frameworks designed with the CF management committees and approved by the CF members, a baseline survey was conducted in order to collect information from the CF members about the current status of the CF area. The baseline survey aims to provide quantitative data that can serve as a basis to be compared with future situation. The survey aims as well to determine strengths and weaknesses of the CF organization in respect of the different principles, criteria and indicators. The data serve as the initial guidelines that the CF management committees can use to enhance the performance of their organization or to improve the productivity of their community forest.

The baseline survey comprises a household (CF members and CF non-members) investigation conducted with a representative sample of households (randomly selected) in each group of the three villages (Table 2). The total number of households interviewed was 159. The baseline survey questionnaire was designed so that questions related to all of the indicators mentioned in the monitoring frameworks designed at the earlier stage of the project.





Table 2: Population and Sample characteristics of the baseline survey

	Total Population		Sample (e=10%)	
	Number of Groups	Number of Households	Number of Groups	Households interviewed
Chong Da	16	253	16	81
Choam Thnanh	3	79	3	51
Kbal Bey	4	40	4	27
Total	23	372	23	159

The analysis of the data collected at the household level provides interesting information on each Community Forestry organization because it covers the four principles and thus allows the stage of development of the Community Forestry organization to be quantified. Some results also give information relevant to the design of the CF management plan.

As an example, the figure displayed below shows the answers given by households interviewed when asked whether they knew about the CF area and, if so, how they recognized the boundary (figure 4). The second chart shows the awareness of the members about the CF regulations. Both of these charts indicate some positive outputs but also highlight certain limitations such as the lack of awareness of CF members about the rules and regulations that govern access to and use of the community forest (figure 5). They give a clear signal to the CF management committee to improve the dissemination of information about CF affairs to all CF members.





Figure 4: Awareness about the CF boundary, results of the baseline survey

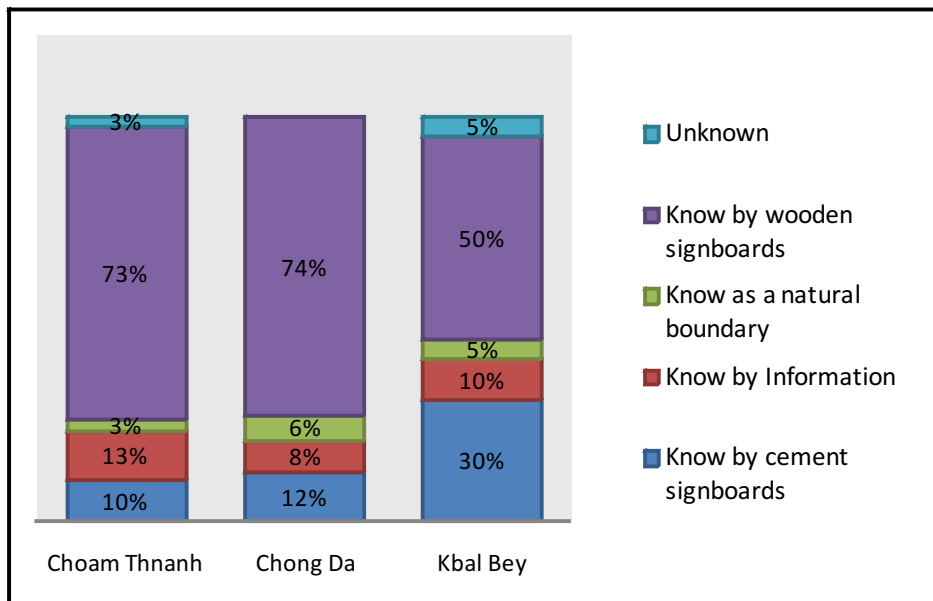
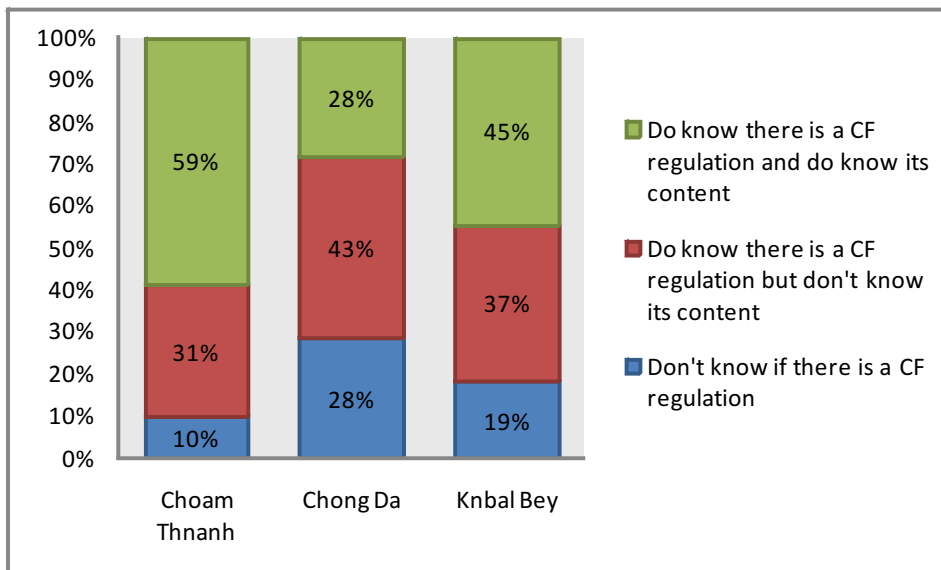


Figure 5. Awareness about the CF regulations, results of the baseline survey



3.4. The M&E framework review and verifier identification

On the basis of the baseline survey results, the three monitoring frameworks were revisited and updated. Some technical words needed to be further explained to the CF management



committees to ensure a perfect understanding of the framework. Certain indicators were also not applicable to certain Community Forestry organizations. Furthermore, the review of the monitoring frameworks gave management committees the opportunity to design verifiers, which are the elements or information that can be used to check whether an indicator is fulfilled or not and, if so, to what extent.

3.5. Writing case studies

The results of the baseline survey also provided the spur for a case study writing exercise. A list of possible case study topics, relevant to the specific development of the Community Forestry organization, was established and submitted to the CF management committees for their scrutiny. They were invited to pick one topic consistent with their particular circumstances and to develop it as a story about their Community Forestry organization. Due to obvious difficulties the case study writing process was led by facilitators from the CBNRM Learning Institute and the Forestry Administration. Even so, the process was conducted in close cooperation with the three CF management committees. Five topics were eventually agreed upon (Table 3).

Table 3: Case study topics chosen by the CF management committees

Topic	Village
Community Forestry and the Decentralization Policy on Natural Resource Management	Chong Da
The Effects of Changes in Land Use and the Community Forestry	Chong Da
The Use of Timber and Non-Timber Forest Products in the Community Forestry Area	Kbal Bey
Marketing System of Non-Timber Forest products in a Community Forestry Organization	Choam Th nanh
Information Flow inside the Community Forestry Organization	Choam Th nanh

Specific training was organized for the project partners to enable them to identify the purpose and the target audience of the case study, to précis the main message to be diffused and to structure the overall case study. This training generated increased understanding about local level resource management and marked the beginning of the identification of issues and concepts specific to each CF performance. The exercise might appear not necessary in the process of establishing a monitoring system, but the very process of writing and structuring a case study is a stimulating exercise for the CF management committee. It is also a good capacity development activity.



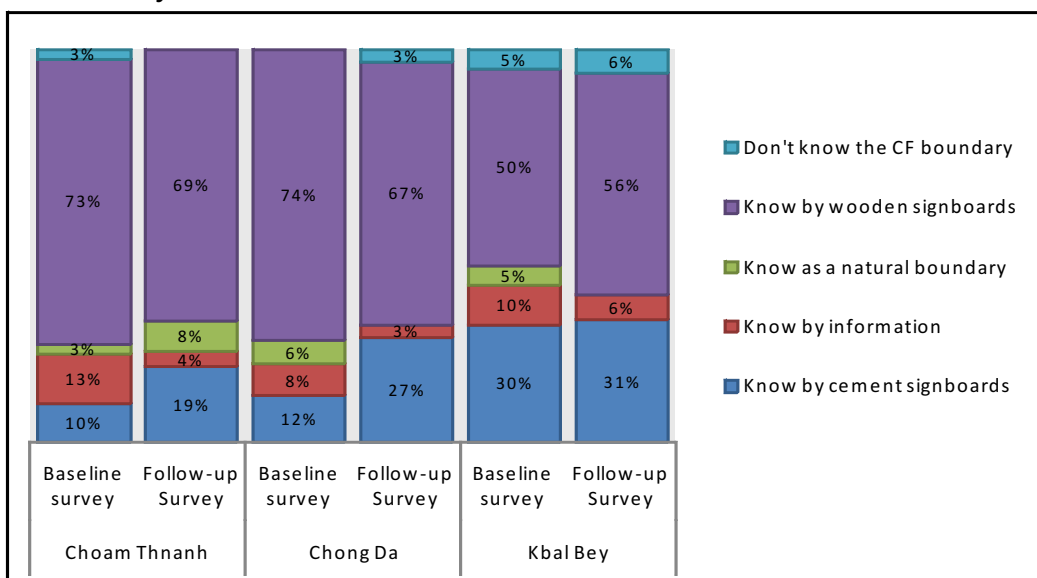
3.6. Follow-up survey and implementation review

Following the structure of the baseline survey, an evaluation survey is conducted. It is intended to provide quantitative data to be compared with results from the baseline survey and analyze the evolution of the Community Forestry organization. To allow comparison, the evaluation survey is designed similarly to the base-line survey, meaning that the questionnaires and survey sample are identical. The survey team consisted also of the same people so that interpretation shifts are avoided.

The evaluation survey addresses the four principles identified for sustainable community forestry management and thus allows the evolution of development of the Community Forestry organization to be quantified and evaluated. This information can be used by the CF management committee either as a stimulus to continue their work or as a signal to rectify any management point that needs to be improved.

As an example, the figure 6 shows the evolution of awareness about the CF boundary amongst CF members. Whereas, the situation is still very much improvable, the figure reveals an improvement for the three CF sites.

Figure 6: Evolution of Awareness about the CF boundary, results of the baseline and evaluation surveys





3.7. Developing the field tool-book for CF monitoring

Ultimately, the project team designed an easy-to-use monitoring field tool-book that CF management committees, local FA staff or CF facilitators can use as a management and communication tool to follow up the activities implemented by the CF organizations.

The structure of the CF monitoring field tool-book is easy to grasp. The principles and both sets of corresponding criteria and indicators are listed in the same structure as in the M&E frameworks (figure 7). The users of the book are invited to write down the activity carried out during a certain reporting period in relation to one specific indicator. They are also invited to mention the activity outputs and the verifiers used to measure them. Finally, they are invited to give a qualitative appreciation of the situation (at the end of the reporting period) of this particular aspect of CF management.

Figure 7: Screen shot of the monitoring field tool-book to be used by stakeholders involved in CF activities

Principle 1 Forest health is maintained		Reporting Period							
		From .../../. ..	To .../../. ..						
Criteria 1-1- Community Forestry area is clearly demarcated and zoned		Activity	Outputs	Verifiers	Situation				
Indicators	1-1-1- Signal and posts along CF border are established				1	2	3	4	5
	1-1-2- Division of the forest into different blocks (use vs. protection) is established				1	2	3	4	5
	1-1-3- Mechanisms to reduce forest land encroachments are available for local community				1	2	3	4	5



Provided that the different dimensions of CF management are systematized and formatted in an understandable way, the monitoring guidebook could ideally serve as a basis for the CF management committees meetings (say every six months). The results of the monitoring exercise can also be easily shared with other stakeholders involved in CF management. Almost at a glance, the strengths and weakness of the development of the Community Forestry initiative can be identified and this can serve as a guideline in planning future CF activities. This can be useful for the internal functioning of the CF organization and also for its external stakeholders who might have an interest in supporting it. The monitoring tool-book can give them an evidence-based appreciation of the community forest and its social organization.

4. CONCLUSIONS

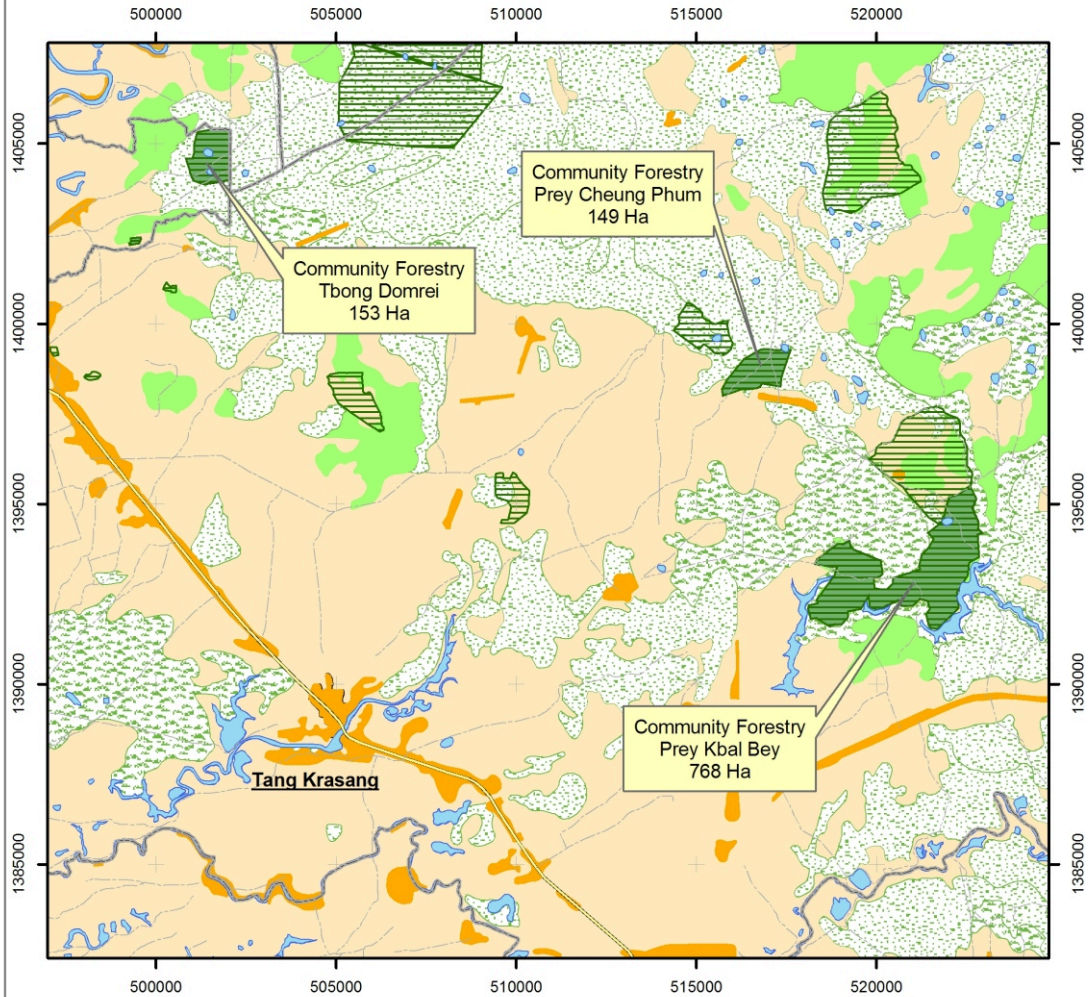
The Community Research and Monitoring Project aimed to develop a monitoring system with three Community Forestry organizations in Kampong Thom province. This initiative was among the first of its kind in Cambodia. The implementation of the project over a 21 month period has brought out factors that may govern any further development of this initiative.

Overall, the CF management committees warmly welcomed the initiative. They considered the project an opportunity to increase their understanding about ways to improve CF management. Besides key activities such as elaboration of CF regulations or CF management plans, there is also a strong demand, from the Community Forestry side for support in management activities and this initiative respond very well to this demand.

The experiences showed that M&E concepts are rather new and difficult to grasp for the CF management committees. Specific terminology (Principles, Criteria, Indicators, etc.) create some confusion and there is a need for constant support during all phases of the process. The role and involvement of external facilitators here is crucial to facilitate both the elaboration and the use of the M&E framework. In this respect, the establishment of an M&E framework is a very efficient tool in capacity development among the CF management committees, as it comprehensively covers all the aspects of CF management. It is also a flexible tool as it can easily be adapted to each specific Community Forestry context.



Map 1. Community Forestry selected for the M&E Initiative



<p>Legend</p> <ul style="list-style-type: none"> District Boundary National Road (#6) Footpath Community Forestry Site Community Forestry selected for the Monitoring Initiative 		<p>Land Use Categories</p> <ul style="list-style-type: none"> Agricultural land Forest cover Grassland Shrubland Village Land Water Feature 		<p>Coordinate System</p> <p>Projection: UTM Spheroid: Everest 48N Horiz. Datum: WGS 84 UTM Grid: 5 km</p> <p>Scale: 1:155,000</p> <p>Source of Data JICA (2002) MLMUPC (2003) GTZ (2005)</p>		
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Chapter Three



INSIGHTS FROM THE COMMUNITIES: REVIEW OF THE BASELINE AND FOLLOW- UP SURVEYS



INSIGHTS FROM THE COMMUNITIES: REVIEW OF THE BASELINE AND FOLLOW-UP SURVEYS

Researched and Written by:

Tol Sokchea, Research/Training Assistant - CBNRM Learning Institute

Srey Marona, Program Coordinator - CBNRM Learning Institute

Diepart Jean-Christophe, NRM Advisor - GTZ/DED Rural Development Program Kampot - Kampong Thom

1. INTRODUCTION

The Community Forestry Research and Monitoring (CFRM) project works to support the development of capacities and policies promoting sustainable Community Forestry management in Cambodia.

Throughout the project's timeframe, the project team undertook major activities which brought about key outputs including complete principles, criteria and indicators (PCI) frameworks for sustainable CF management, case studies, and newly drafted CF field monitoring tool-books (sheets) for the three pilot sites of this project. In term of impacts, this project also enhanced the research, analysis, and documentation capacities of all the project partners including field facilitators of NRM/GTZ and their counterparts, the CFMCs of the three CF sites, and the researchers from the CBNRM Learning Institute.

Furthermore, the project team conducted two participatory field surveys, the first as a baseline study while the second has been viewed as a follow-up or evaluation of the progress. The baseline survey was held in 2006 and the follow-up survey was conducted in 2007.

This chapter is divided into four sections. Following this introduction, section two will provide the objectives of the baseline and follow-up surveys and the methodology used to conduct the surveys by the team at the CBNRM Learning Institute, students and local Forestry Administration (FA) staff at Kampong Thom cantonment level and Provincial Department of Environment who were counterparts of NRM/GTZ. Section three presents the key findings of the survey and a progress status of the CF area/organization based on an analysis of these



findings. The chapter concludes by drawing out the implications and making recommendations.

2. OBJECTIVES AND METHODOLOGY OF THE SURVEYS

The objectives of the surveys were multi-fold. They aimed first to identify strengths and weaknesses of the CF organization in respect of the different principles, criteria and indicators identified in their monitoring frameworks. They also supported the evaluation of the Community Forestry organization on the basis of time-series quantified indicators that can be used to make comparisons with future situations.

The study was based on the Monitoring and Evaluation (PCI) frameworks designed with the CF management committees and approved by the CF members. The survey was conducted by the team who had been working on the project since its early phase: staff from the CBNRM Learning Institute, government staff (local Forestry Administration and Provincial Department of Environment who were counterparts of NRM/GTZ) and two representatives from the Community Forestry management committee of each site. The survey was conducted at the household level in two phases: a first baseline survey and then a follow-up survey which was based on the same questionnaire and the same sample (see table 1: Population and sample characteristics of the surveys, and table 2: list of the research team). The study focuses basically on quantitative data that can serve as a basis to be compared with future situations. Thus the tool used by the team is mainly a structured quantitative questionnaire.

The study team was divided into three groups according to the CF site: Chong Da, Choam Thnanh and Kbal Bey. The survey sites were selected on the basis of the following factors: accessibility; the existence of autonomous forest management prior to the official establishment of a Community Forestry area; the existence of challenges regarding the reform process from the village-based NRM approach to that of a Community Forestry organization; and the existence of a large forest area where forest resources could play a decisive part in the rural livelihood of CF members (see chapter 2 by Srey Marona and Diepart Jean-Christophe).

2.1. Designing questionnaires

The design of the questionnaires was based on the elements of the principles, criteria, indicators framework. They aimed to measure progress as well as to investigate all dimensions of CF



management (refer to Appendix 1 for complete PCI frameworks). The questionnaires focused on four principles and all of the indicators mentioned in the monitoring framework, including the demarcation and zoning of the forest area and the forest ecology, the participation of members in CF activity, their benefits, the mechanisms through which CF members share these benefits, and the rules and regulations endorsed by the CF management committee for the daily management of the CF and for defining responsibilities and rights of access to the CF. Finally, the questionnaire focused on the relationship between the CF organization and outsiders, including the Forestry Administration, CF facilitators and nearby villages.

These questionnaires were tested prior the interview and there were some revisions made according to the test's results. The questionnaires were then finalized in August 2006. The same questionnaires were used again in the follow-up survey (refer to Appendix 2 for questionnaires).

2.2. Sampling

In order to provide sound analyses, it is necessary to acquire statistically representative information. A sample of households was selected randomly in every group (*krom*) of each village. The sampling method followed a formula given by Yamane (1967):

$$n = \frac{N}{1 + N \cdot e^2}$$

where *n* is the sample size (number of households), *N* is the total number of households in the village (or *krom*) and *e* is the accuracy level. The *e* value selected was 10 percent and this value represents the confidence interval we need to consider to extrapolate the results obtained for the sample of the total population. CF members and CF non-members were interviewed.

Table 1: Population and sample characteristics of the survey

Village	Total Population		Sample	
	Total number of groups (<i>krom</i>)	Total number of households	Total number of groups (<i>krom</i>)	Total number of households interviewed
Chong Da	16	253	16	81
Choam Thnanh	3	79	3	51
Kbal Bey	4	40	4	27
Total	23	372	23	159

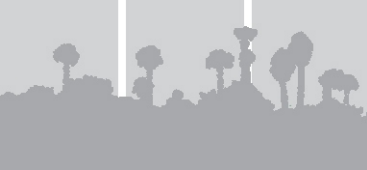


Table 2: Survey Design

Research Site	Time frame for data collection		Research Team, Organization
	Baseline	Follow-up	
Chong Da	11-15 Sep 2006	15-18 Aug 2007	Group 1: 1. Meam Sito, FA Kg. Thom 2. Nop Chhaya, FA Kg Thom 3. Tol Sokchea, CBNRM LI 4. Preap Socheat, CBNRM LI 5. Hou Vong Vichheka, CBNRM LI 6. Heng Thoan, Chong Da village 7. Choub Sou, Chhong Da Village
Choam Thnanh	16-25 Sep 2006	19-20 Aug 2007	Group 2: 1. To Sothea, FA Kg. Thom 2. Vann Sai, PED Kg. Thom 3. Tol Sokchea, CBNRM LI 4. Preap Socheat, CBNRM LI 5. Hou Vong Vichheka, CBNRM LI 6. Orm Im, Choam Tnhnan Village 7. Chhun Moeun, Choam Thnanh Village
Kbal Bey	26-27 Sep 2006	21-22 Aug 2007	Group 3: 1. Nop Chhaya, FA Kg Thom 2. Van Sai, PED Kg Thom 3. Tol Sokchea, CBNRM LI 4. Preap Socheat, CBNRM LI 5. Hou Vong Vichheka, CBNRM LI 6. Phan Try, <i>Kbal Bey Village</i> 7. Ul Keb, <i>Kbal Bey Village</i>

2.3. Data collection, encoding and analysis

The data collection was based on a structured quantitative questionnaire developed by the research team. The team was divided into sub-groups and then each sub-group interviewed the selected families.

The information gathered was encoded and analyzed by the research team. The SPSS program was used for this assignment. The findings were subsequently presented to the villagers at the three CF sites for their reactions and comments. These presentations were also necessary for the CFMC to reflect on their current work and to make appropriate plans for future activities. The presentation of baseline survey findings was conducted in November 2006 and for the follow-up survey in October 2007.

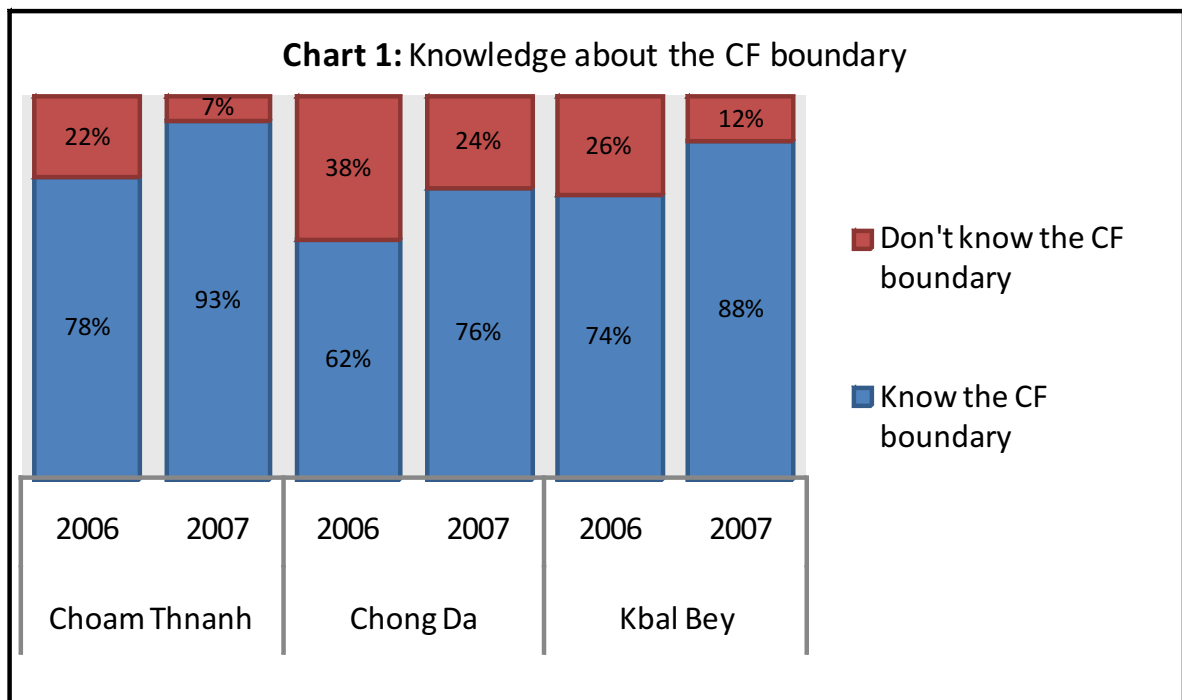


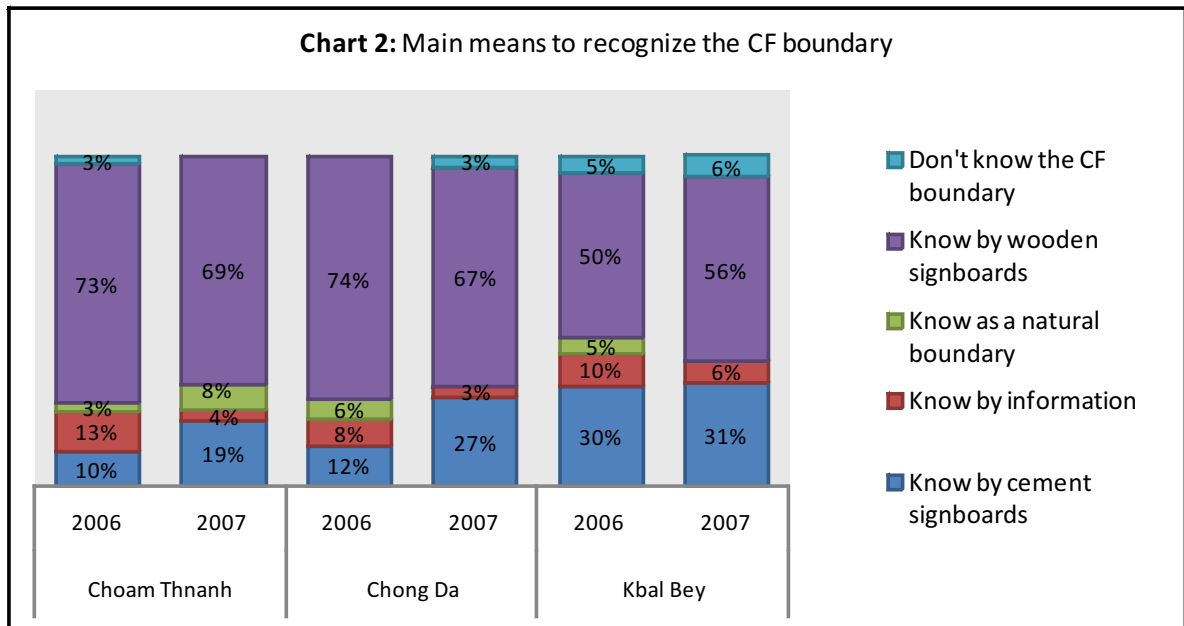
3. KEY FINDINGS

Principle 1: Forest health is maintained

Knowledge about the CF boundary

The knowledge of the villagers about the CF boundary was fair in baseline period. A year later, according the second investigation, this had been considerably improved in all three CF sites (chart 1). The respondents who knew about the CF boundary, were further asked to specify by what means they recognized this boundary. Interestingly, the increase in general knowledge about the CF boundary via cement posts seems also to have increased in similar proportion. The efforts of the CFMC to consolidate the demarcation of their CF boundary with cement posts are therefore bearing some fruits. This activity took place in every village with the involvement of most villagers and the owners of land adjacent to the CF area. This, on one hand, has created a consensus amongst stakeholders about the CF boundary, and on the other hand, has made more villagers aware of the CF boundary through their participation during the demarcation days.

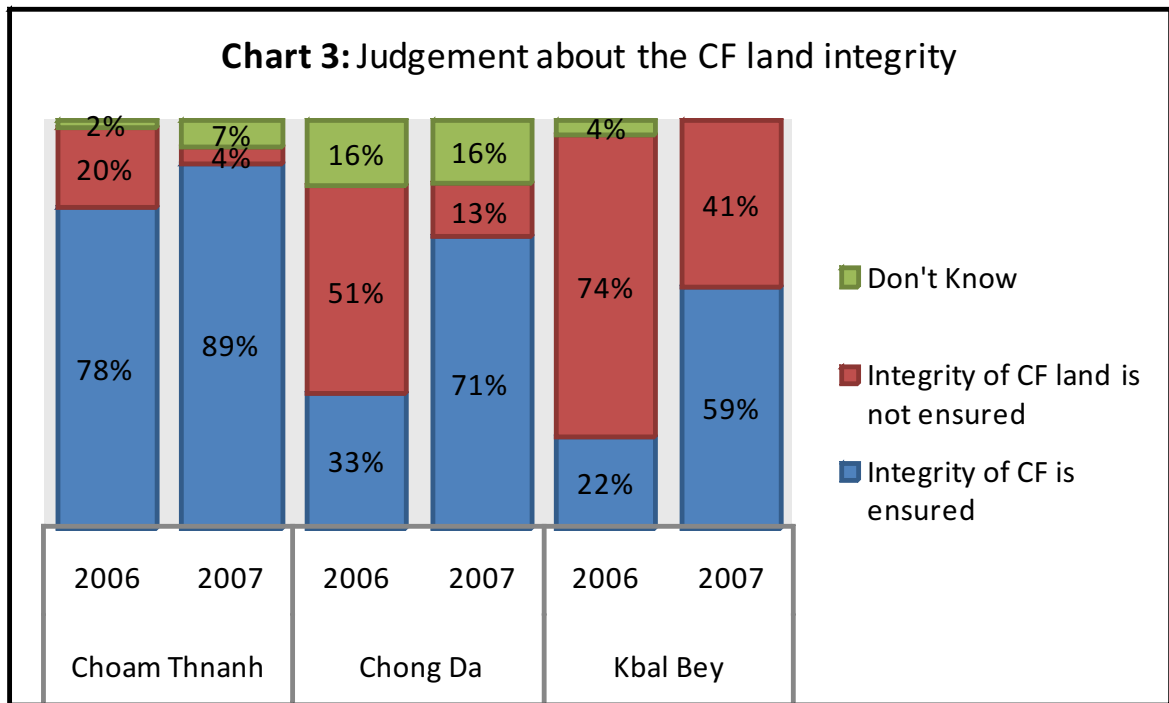




Protection of CF land against encroachers

Chart 3 indicates the awareness of the respondents in respect of the integrity of the CF land. Each respondent was asked if they thought that the CF land was well protected against land encroachment. The percentage of respondents who considered that the integrity of CF land was ensured has actually increased in all three sites. Here, again, the cement poles along the CF boundary have indeed been critical factors in improving CF land protection, in triggering the patrolling efforts in respect of the community forest and in reducing land encroachment overall. However, the problem of land encroachment is still real given that the patrolling system can only partially respond to the need to guard the CF. For instance, in Kbal Bey the villagers complained about the disturbance of the forest by people from other villages. In this respect, the land tenure granted by the CF area agreement is important in ensuring the security of the CF area.

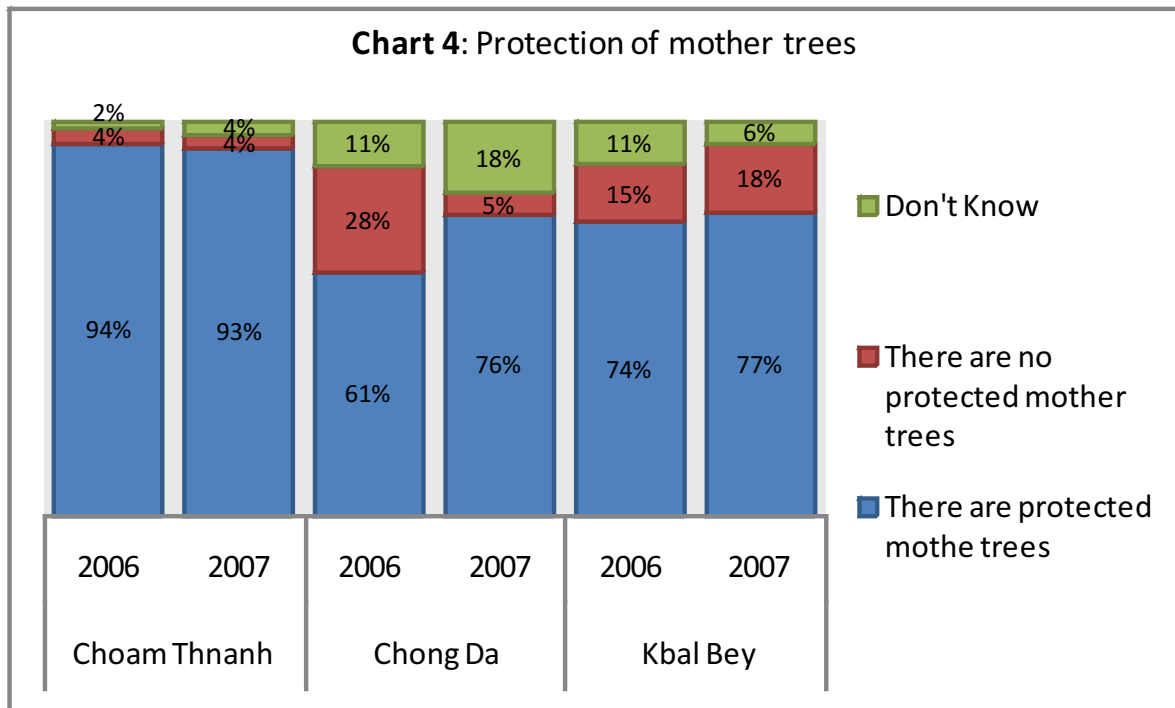




Sylvicultural management of the community forest

The protection of mother trees inside the CF area is regulated and this is mentioned in the regulations of all CF sites. Interestingly, the knowledge of CF members about what trees are to be protected is good for all three CF sites. Local people are quite aware of the importance for forest regeneration. In the perspective of more advanced sylvicultural management of the forest, it should be emphasized that a more systematic inventory of mother trees (number and species) should be conducted to further protect the CF area. Additionally, management blocks for tree plantation should be better identified, as should a clear tree propagation strategy. These technical aspects of CF management can seem far ahead, but are crucial to ensure the sustainability of the forest resources.





Principle 2: People's well being is ensured

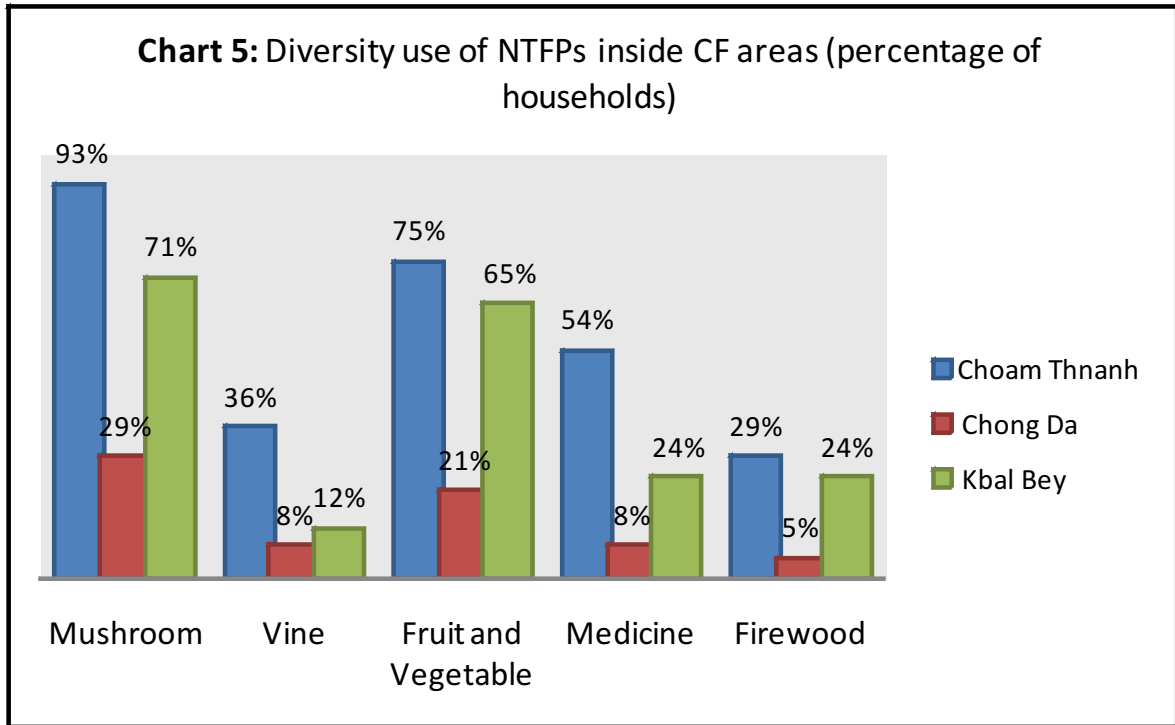
Diversity of use of non-timber forest products in the CF areas

CF areas are being used for a large range of purposes directly associated with the livelihoods of local people (chart 5). Grazing land was not explicitly included in the questions put to the households, but the importance of CF in providing a secure and peaceful grazing area was unanimously recognized by the interviewees. Not surprisingly, there were no major differences between answers in the baseline and follow-up surveys as they were conducted in more or less the same week of the year (2006 and 2007).

Chart 5 shows that among the three villages, seasonal items are the most commonly collected products from the CF area (mushrooms, wild fruits and vegetables). Nevertheless, chart 5 shows that the CF area has many other products to offer through the year such as firewood or timber for making agricultural equipment. Overall, the percentage of people who actually collect forest products is very high and they are usually collecting more than one forest product. Overall these



results support the idea that CF is intrinsically a multi-functional area where people have access to a variety of products that play an important role in their livelihood.



Principle 3: Community well being is ensured

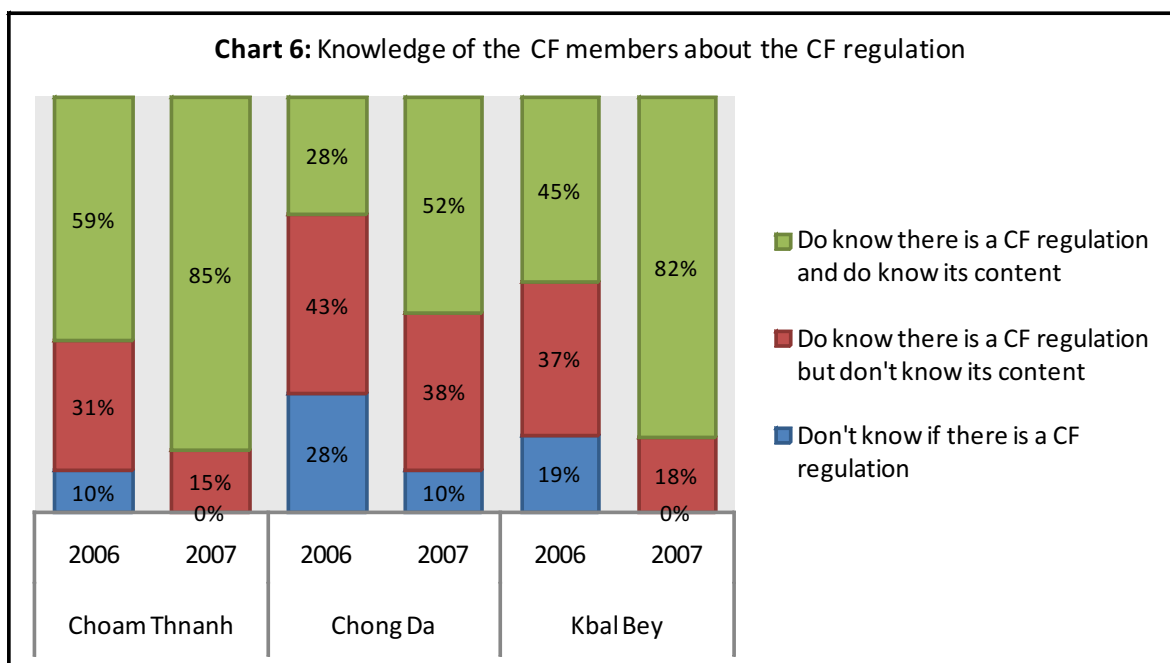
CF Regulation

Since the early 2000, the three community forest organisation partners of the project had been drafting various documents to regulate the functions of the community forestry, in particular the access to and the use of community forestry. Importantly the regulation define the CF products benefit sharing mechanisms between the CF members, the CF committee and any social investment that the people would like to do in the community (support to school, pagoda, etc..). Natural Resources Management Regulations were first established in the beginning of the support from RDP-GTZ but were reformed later into more specific CF regulations in line with the newly released sub-decree and guideline.



The people interviewed during the two-round investigations were asked if they know about the existence of the CF regulation and if so, if they knew about its content. This information is critical because the CF regulation is the core document that governs the management of the community forest. It reflects the principles that the community as whole has defined and approved for the sustainable management of the community forest.

The results displayed in figure 6 show a significant improvement between the baselines and follow up surveys with regard to the awareness of CF members about the CF regulation. The percentage of household who know about the CF regulation in general and its content in particular has increased in all three sites. This positive evolution is due to the participation of CF members in CF congress organized with support of the external facilitators. The content of the CF that was drafted with the CF management committee has been explained, improved and approved by all the CF members. Even if these CF congresses have had a significant impact on the awareness of CF member about the principles that govern the management of the CF organisation, efforts are still needed in disseminating these regulations to an even larger audience.

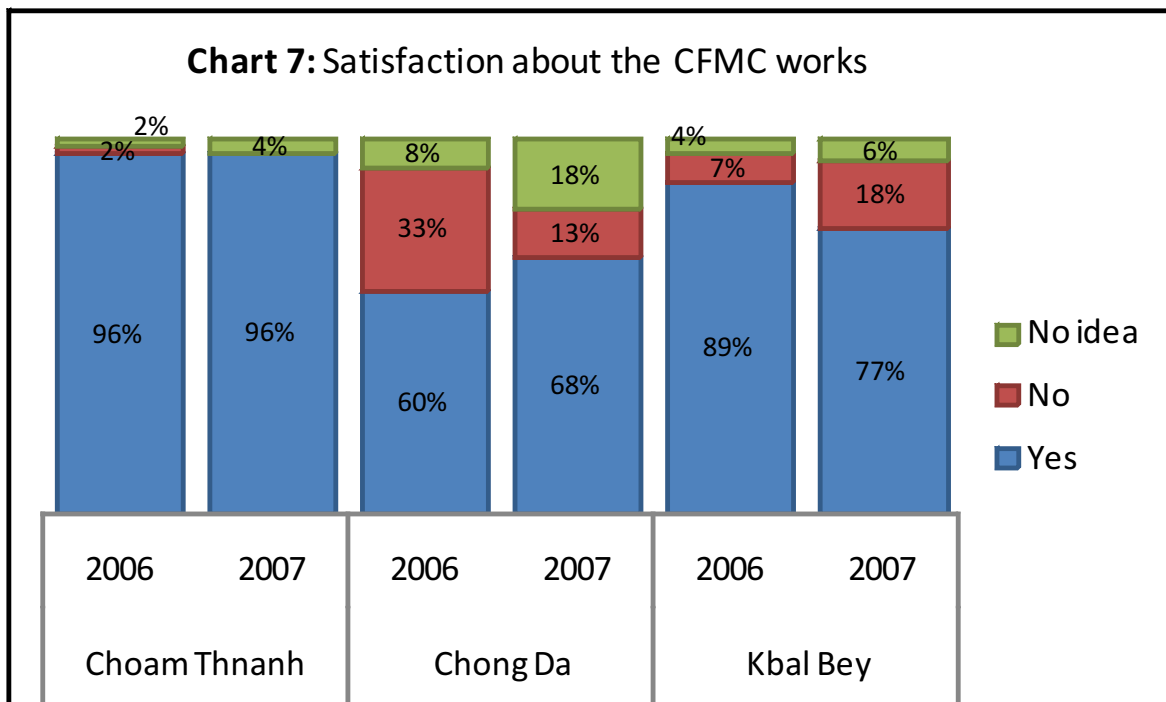




CF Management Committee

Every five years, an election is organized to elect a CF management committee. This will oversee the distribution of responsibilities for the daily management of both the organization and the forest. A first election was organized in 2000-2001 and a second in 2005-2006.

Chart 7 shows that the CF members are actually quite satisfied with the work of the CF management committee. Overall, the CFMC members are said to conduct their roles with success. Nevertheless, the trends in each village are dissimilar. In Choam Thnanh, both baseline and follow-up survey show a good degree of satisfaction among villagers (thanks to an excellent flow of information between the CFMC and the CF members). In Chong Da, the level of satisfaction has increased (due to the positive involvement of the CFMC in CF boundary consolidation) while it has decreased in Kbal Bey because the CF committee has not always been able to deal with land encroachment cases inside the CF area.





People's participation in CF activities

The level of participation of CF members in the three CF sites varies from one village to another. In Choam Thnanh and Kbal Bey villages, the level of participation is fair and even increased during the period between the baseline and follow-up survey. This increase is mainly due to the keen involvement of the CF management committee in the organization of a CF congress in which all the CF members were invited to join to approve the revised CF regulations. However, the case of Chong Da shows an urgent need to improve this aspect of Community Forestry management. Without participation from CF members, the Community Forestry organization will not have any sustainable outcomes. In particular, the need is to improve the exchange of information between the CFMC and CF members as well as to involve CF members in patrolling or other activities. The quite negative picture of CF management in Chong Da delivers a strong signal to the supporting institutions to review the way they provide support to the CF group. They should think of more inclusive support strategies involving not only the CF management committee but also the other members of the community.

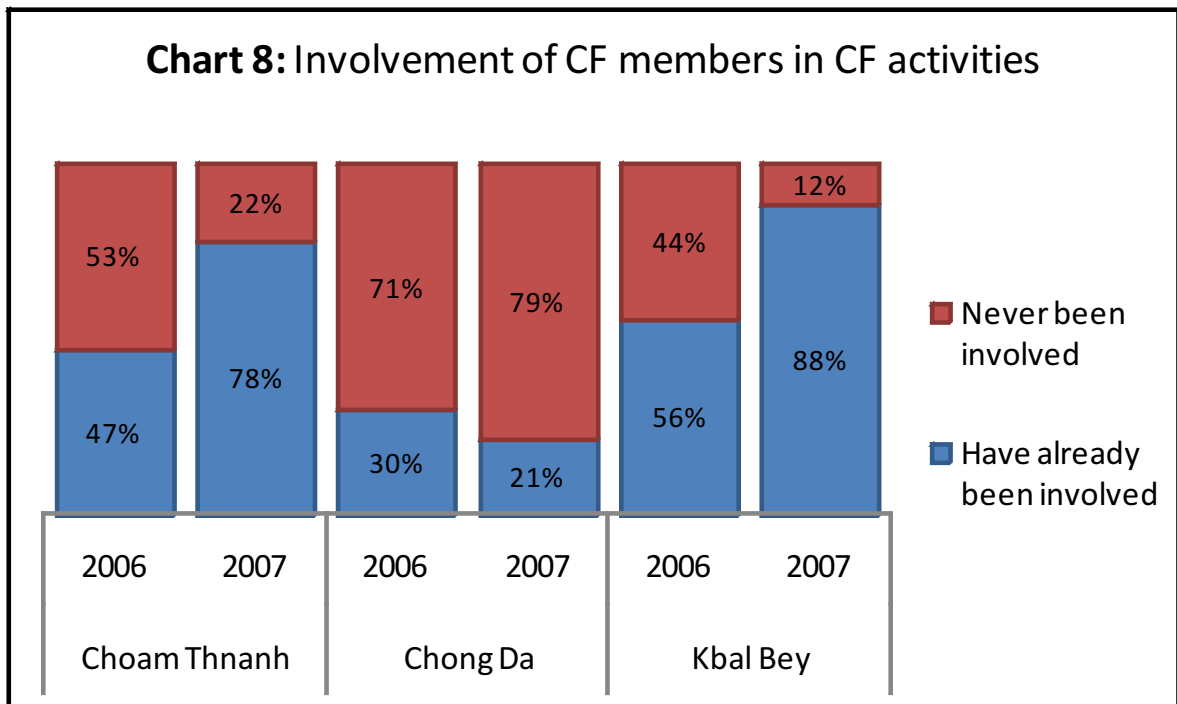




Chart 9 shows the different types of CF activities that CF members have taken part in (for those CF members who have already been involved in any CF activities). For all three CF sites, the CF congresses (referred to below under the heading “meeting”) seem to have had a positive impact as the corresponding percentage has increased.

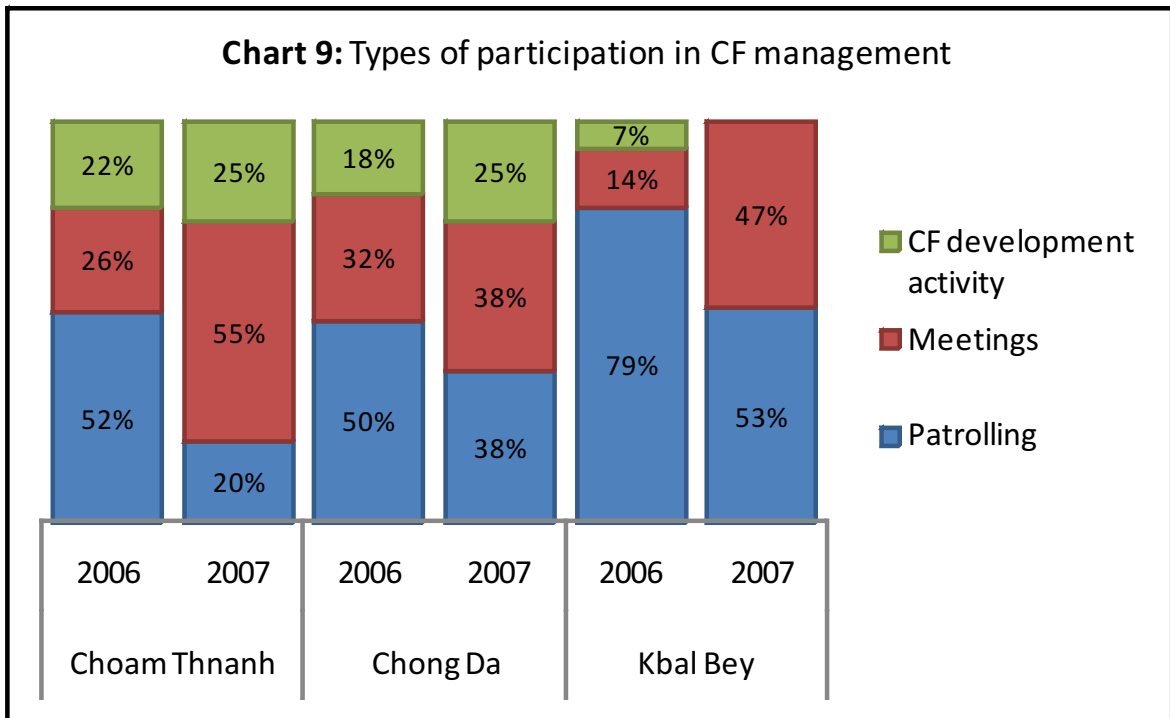
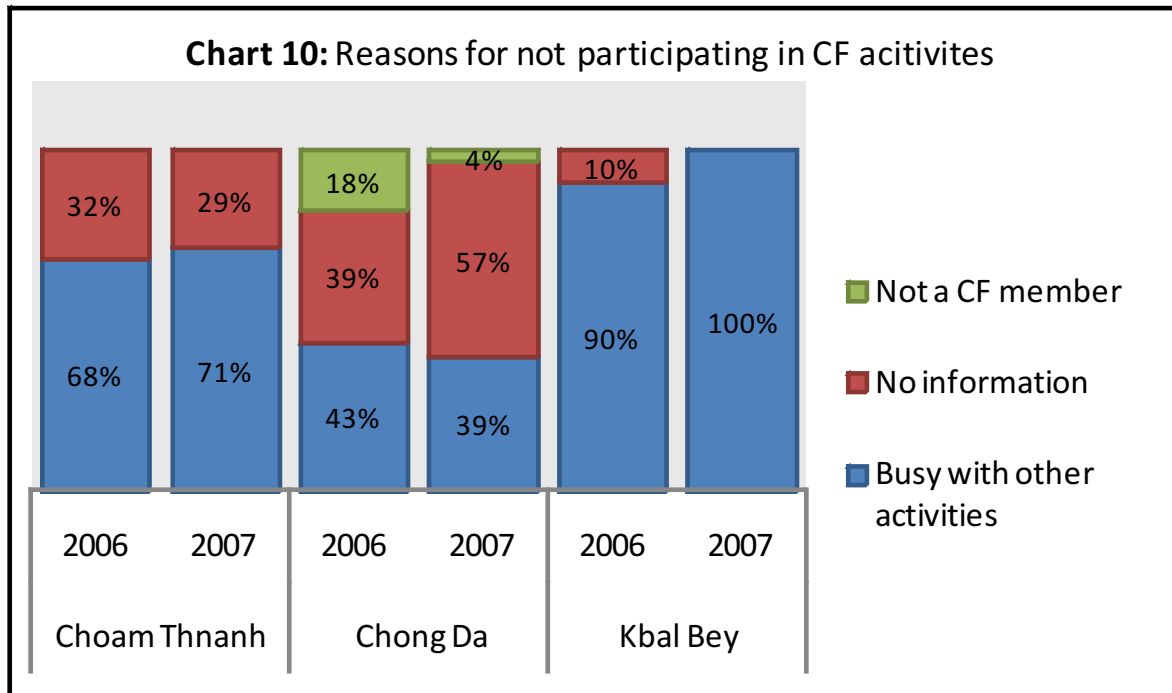


Chart 10 shows the other side of the coin. The CF members who have not been involved in any CF activities were further asked the reasons why. The main factor that seems to prevent people from joining in CF activities is that these clash with other activities that they judge more important to their livelihoods. In Chong Da, the results show that the increase in non participation in CF activities is mainly due to poor exchange of information between the CF management committee and the CF members.



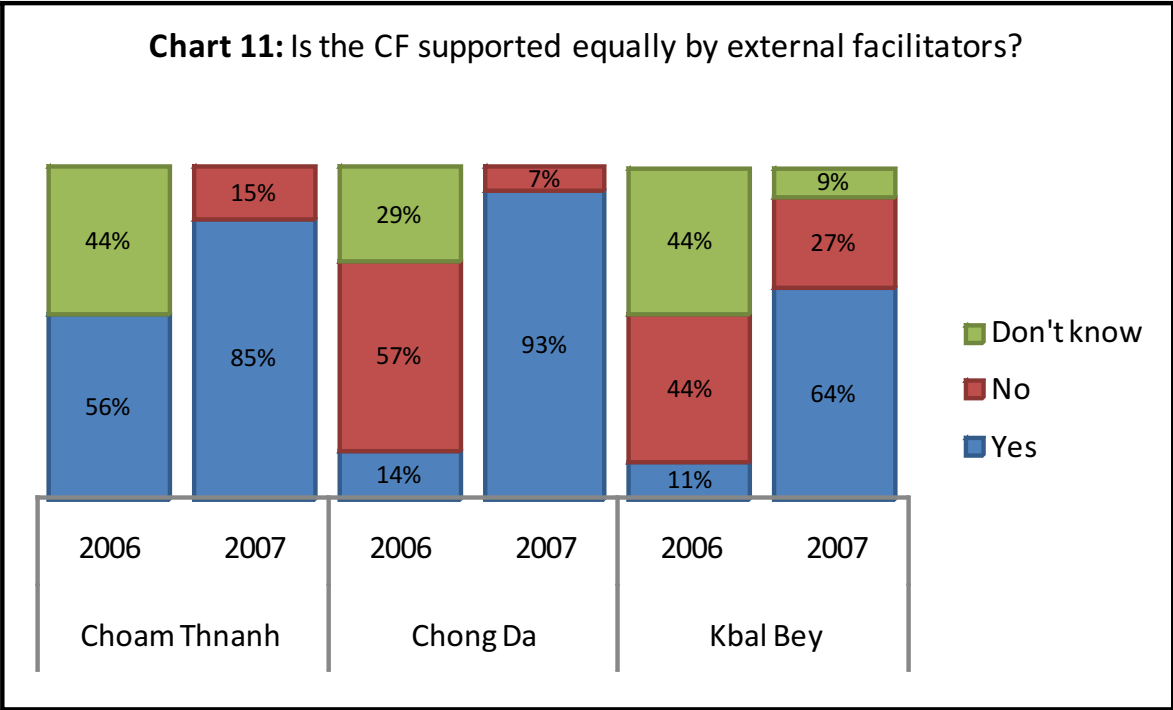


Principle 4: External environment is supportive

Service support by external facilitator

For all three CF sites, the support received from outside supporters (FA and GTZ) was better perceived during the follow-up survey than during the baseline survey. Training, dissemination and village meetings to share information with villagers, for instance, were conducted between both surveys with external facilitation and this has enhanced the perception of the CF members. The increase is particularly important in Chong Da where external facilitation successfully reduced the breach of trust between the CF management committee and the CF members. However, chart 11 shows that the involvement of the facilitator could still be improved in order to respond to the real need and expectations of the CF organization.

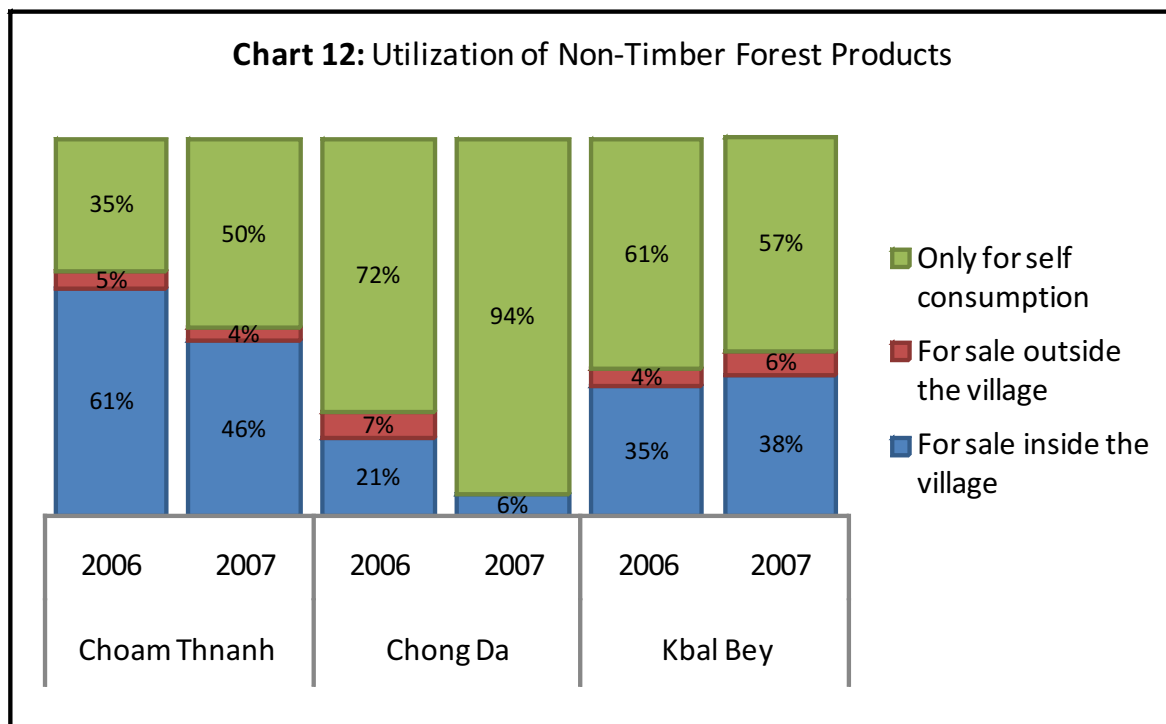
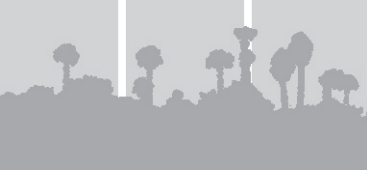




NTFP marketing

The market for non-timber forest products can also be considered as a support mechanism for the CF organization. Chart 12 shows that the NTFP collected inside the CF area are primarily used for self-consumption in the three CF sites. The chart also shows that, when villagers are selling their NTFP, they do so mainly inside the village. A small proportion only is sold outside the village. The prevalence of self-consumption of the forest products collected inside the CF also highlights one of the main features of Community Forestry management ie to support the use of NTFP by its members for self-subsistence. In a village like Choam Thnanh, the results underline the opportunities to develop a village-centered NTFP marketing system managed by the CF organization





4. CONCLUSION

The baseline and follow-up surveys were intended to capture the strengths and weaknesses of CF management as well as to chart the evolution of the CF organization over time. The methodology developed allows for good tracking of the changes as the surveys are aimed at household level. Combined with more quantified monitoring of the CF management along the PCI framework, the information generated by the survey has been instrumental in evaluating the performance of CF management in the three sites and in monitoring its evolution.

Due to the keen involvement of the CF management committees in consolidating the CF boundary and in rationalizing patrolling activity, the protection of the CF area has increased in the three sites. In this respect, the surveys have shown very clearly the positive influence of the CF management committees in involving all CF members in the protection of the CF area, in particular by organizing campaigns of CF demarcation with cement posts.

Overall, these efforts have allowed the CF members to secure their access to timber and non



timber forest products from inside the CF. Both surveys have highlighted the diversity of products collected in the CF area. Of particular importance in people's livelihoods was the possibility offered by the CF to be a grazing area for the cattle. While the dominant driving forces tend to convert the forest areas into annual and perennial crop plantations, CF has the capacity to maintain multifunctional land use patterns that can respond to diverse needs. This diversity is part and parcel of diversification and risk-coping strategies activated by rural households. Nevertheless, the current roles played by the CF in maintaining people's wellbeing are still limited as the forest is not able to provide sufficient products for all community members. Thus, in order to maximize the benefits of CF for local people, it is advisable to increase the size of CF area wherever state public land has not yet been converted to private plantation. This is where the CF management committees need strong support from commune authorities, the local FA and external facilitators.

Nevertheless, the surveys have identified some deficiencies in the way management issues are addressed in respect of the overall community (CF members). For instance, knowledge among CF members about the CF regulations and the benefit sharing mechanisms is still limited, which means that there is no certainty that people will benefit from their involvement with the CF activities. This element is critical in enabling inclusive management of the CF. In the three sites, community-based organizations are organized along hierarchal lines and the flow of information between the CF management committees and the CF members is critical in order that the benefits are not seized by the local elite. Here again, the role of the CF supporters is crucial.

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Chapter Four



KEY CHALLENGES FOR SUSTAINABLE COMMUNITY FORESTRY MANAGEMENT: A CASE STUDY APPROACH



KEY CHALLENGES FOR SUSTAINABLE COMMUNITY FORESTRY MANAGEMENT: A CASE STUDY APPROACH

INTRODUCTION TO THE CASE STUDIES

The data collected during the baseline survey as well as various discussions organized in the frame of the project, provided the spur for a case study writing exercise. The project team (CBNRM Learning Institute, Forestry Administration, Community Forestry Management Committees and GTZ-RDP) has identified case study topics which are relevant to the specific development of the Community Forestry organization. Each topic was developed into a detailed story supported by qualitative and quantitative data (primary or secondary).

In Chong Da village (Tbong Krapeu commune), a case study addresses the relationship between the Community Forestry organizations and the commune council as a link between local government and the people to effectively implement decentralization. In the same village, another case study illustrates the critical role of the community forest in terms of land security: its role for good land governance and importance for sustainable land use.

In Kbal Bey, the team researched the diversity of non-timber forest products collected and their importance to the livelihoods of people living in a community forest area.

In Choam Thnanh, one village story is about NTFP marketing challenges and the opportunities for the Community Forestry organization to establish or reinforce marketing strategies for the benefit of the community as a whole. The second case study in Choam Thnanh addresses the information flows in a village and how information related to Community Forestry management is discussed in the committee and shared among all the members.



Case Study One



COMMUNITY FORESTRY AND THE DECENTRALIZATION POLICY ON NATURAL RESOURCE MANAGEMENT



COMMUNITY FORESTRY AND THE DECENTRALIZATION POLICY ON NATURAL RESOURCE MANAGEMENT

Researched and Written by:

Tol Sokchea, Research/Training Assistant - CBNRM Learning Institute
Meam Sito, Vice chief of Stong FA triage

Key Message: Community Forestry supports and operationalizes the decentralization policy in respect of Natural Resource Management (NRM) in Cambodia.

1. INTRODUCTION

Natural resources are critical to people's livelihoods and have been used by humans both directly and indirectly. Sustainable natural resource management has lately been advocated as an important means of supporting human needs and subsistence. Specifically, community-based natural resource management (CBNRM) has been presented as an effective approach for natural resource management (NRM) because it is not only about protecting natural resources but also about responding to the needs of the local communities. In the forestry sector, the decentralized management style is slowly being recognized as a response to sustainable forest management because local communities participate in the management and decision making in respect of the use of forest resources.

In Cambodia, the community-based forest management approach began in the early 1990s and since then has generated great interest from relevant institutions and agencies, especially the Royal Government of Cambodia (RGC). A critical strategy in including the local community into the process of forest management is the implementation of Community Forestry (CF). Community Forestry is a new management system that identifies a group of people to manage and use the forest in sustainable way under the agreement between the local community and forestry administration and the Forestry Law (Forestry Law 2002). CF has often been regarded as “sustainable forest management through the participation of local people, by making the objectives of local people central in forest management and ensuring that local people obtain reasonable benefits from the forest management”. (Evans, 2003, cited in Carson et al., 2005).



Overall, the focus on local community participation means that there is a decentralized governance style in CF implementation. This case study illustrates the experience of Chong Da village, Tbong Krapeu commune, Steung Sen district, Kampong Thom province. It describes and reflects on the decentralization process in forest management and its implementation in the context of active local community participation. This case study also points out the challenges of this particular approach.

2. GENERAL INFORMATION

Chong Da is one of the five villages of Tbong Krapeu commune, Steung Sen district, Kampong Thom province covering a land area of 535 hectares and divided into settlement land, paddy field and plantation, and forest land. The village has a population of 1,134 people, 573 (or 51 percent) of whom are women. There are 257 households (Chong Da Population Statistics 2007). About 75 percent of the villagers are farmers and the remaining 25 percent are fishers, laborers and a few NTFP collectors. There is diversity of occupations in this village because of the opportunities presented by the geographical area of the village and its proximity to National Road No. 6 (CBNRMLI 2006).

The Chong Da village is adjacent to Kal Mek village, Tbong Krapeu commune and Anlong Krasang village, Kampong Svay commune to the north, Tbong Krapeu village, KoKos commune in the south, Tapreach village, Tipou commune to the east and Ampous village, Tbong Krapeu commune to the west.

During the 1990s, the production systems of Chong Da's people were rather traditional: farming, shifting cultivation, and NTFP collecting were their main activities. However, with increased influence of charcoal and perennial crop (cashew) markets, the people began to change their ways of managing the forest resources which, in turn, led to forest degradation.

From 2001 to 2005, the villagers were encouraged to practice community management of forestry and fishery resources and to incorporate community plans into the management scheme. This was facilitated by the Kg. Thom Forestry Administration (FA) cantonment and the Provincial Department of Environment (PED) with support from German Technical Cooperation (GTZ) through the Natural Resource Management (NRM) component of the Rural Development



Program Kampot-Kampong Thom. With support from GTZ and their counterparts, village NRM committees, village regulations and a village NRM management plan were created. At the commune level, there was an NRM committee with consolidated regulations and management procedures for the whole commune. It should be noted that the NRM structures try to link with the administrative structures at the commune and village levels. For example, one of the commune councilors is assigned as the head of the NRM committee at commune level.

When the Forestry Law was approved in 2002, the facilitators of the NRM-GTZ team proposed the establishment and implementation of CF in accordance with the law. The Tbong Domrei and Trapang PongRo areas were chosen to be the CF areas for this new initiative. In response to this change, some existing documents such as regulations and management plans, were modified in order to meet the objectives of CF implementation. This change began in 2005 and eventually led to the establishment of a CF named Prey Tbong Domrei (Diepart 2007).

The CF in Chong Da was established through facilitation by the local FA in Kg. Thom, the local authority and the support of NRM-GTZ in collaboration with other related institutions. Geographically there are two separated blocks, the Tbong Domrei area with 149.07 ha, located to the east of village and the Trapeang Pong Ro area with 4.57 ha, located to the south of village.

3. THE EVOLUTION OF DECENTRALIZATION POLICIES IN THE FORESTRY SECTOR

Decentralization means that power is delegated from central to local level in decision making on matters concerning livelihoods and interests. The Cambodian government's interest in decentralizing power led to sectoral policy reform. CF emerged in Cambodia in the 1990s and this generated great interest from the government, local villagers and stakeholders such as donor organizations and NGOs working in the forestry sector. Besides incorporating the local community in the process of forest management, legal support was an important factor for the success of this approach. The RGC's National Forest Policy in 2002 highlights "the goal of environmental and biodiversity conservation, poverty alleviation, economic development and good governance and the recognition of the local community's right to traditional use of forest by providing benefits to local communities through using and protecting the forest and wildlife" (cited in Carson et al., 2005). This strategy clearly reflects the support of the RGC for local communities in their forest management activities to ensure the improvement of their



livelihoods and a reduction in poverty.

The approval of the Forestry Law, the CF Management sub-decree, and CF Establishment Guidelines comprehensively supported the mandate, rights and responsibilities of all stakeholders in forest management. For example, Article 40 of the Forestry Law stipulates the rights of the local communities for the traditional use of the forest. Article 4 of the CF sub-decree mandates the right of local communities to establish and manage the CF by officially applying to the FA. Additionally, Article 17 of the CF sub-decree states the right of the local community to manage the CF through a free and transparent Community Forestry Management Committee (CFMC) election. These factors reflect the change of forest management in Cambodia from a top-down to a community based approach that is aligned with the decentralization policy promoted by the RGC.

4. INSIGHTS IN RESPECT OF THE PREY TBONG DOMREI CF ORGANIZATION

People Participation in CF

The Prey Tbong Domrei CF has 548 members, representing 50 percent of the total village population (CF Application Form 2007). All the CF members are supportive of the CF since they clearly understand the importance of the forest resources for their livelihoods. In the process of establishing the CF regulations, two meetings were held in which all CF members actively joined. The first meeting was an opportunity for the members to share experiences and to consult with each other about the specific sections of the regulations. Then a follow-up consultation was held to clarify the draft regulations with the villagers and to get their approval. These activities reflect the participatory nature of the process and in the case of Prey Tbong Domrei CF, there was a strong commitment and willingness among the villagers to be involved in the CF initiatives. CF members also participated in other management work such as reporting illegal activities inside



"I will inform the CFMC when I meet people logging in the CF area because the forest belongs to all of us so I have to help protect this resource."

Choun Eng, a Community Forestry member



the CF area and contributing to the CF fund, among other actions. Generally, CF members pass through the CF to go to their rice fields so this provides them with opportunities to take a look or to patrol the CF area indirectly. In 2006, the members also actively participated in setting poles to demarcate the CF.

Nevertheless, there are some limitations in CF members' participation since most of them are farmers who are busy with their daily livelihood activities. In addition, there is limited information flow inside the CF organization because the CFMC is not consistent in informing all members about the CF activities. As a result, some CF members are unable to attend some CF activities (CBNRM LI 2006).

The link between the CF and commune council

The success of CF management is dependent mainly on good management schemes such as the CFMC's willingness to undertake CF work and to win the support of related institutions and local authority representatives, particularly the commune council. It should be noted that Article 45 of the Law on Khum/Sangkat Administrative Management states that the commune council has no right to intervene in national issues such as forestry (amongst other things). On the other hand, the law says that commune councils have a duty to protect and preserve the environment and the natural resources (article 43, Law on Khum/Sangkat Administrative Management 2001). The CF sub-decree stipulates that the role of the commune council is to facilitate the CF establishment only (Oberndorf 2006). However, in Prey Tbong Domrei CF, besides the financial and technical support from the NRM-GTZ in Kampong Thom, the commune council of Tbong Krapeu commune is very supportive of CF. It plays an important advisory role in the CF organization and also supports many CF development activities (See Figure 1).

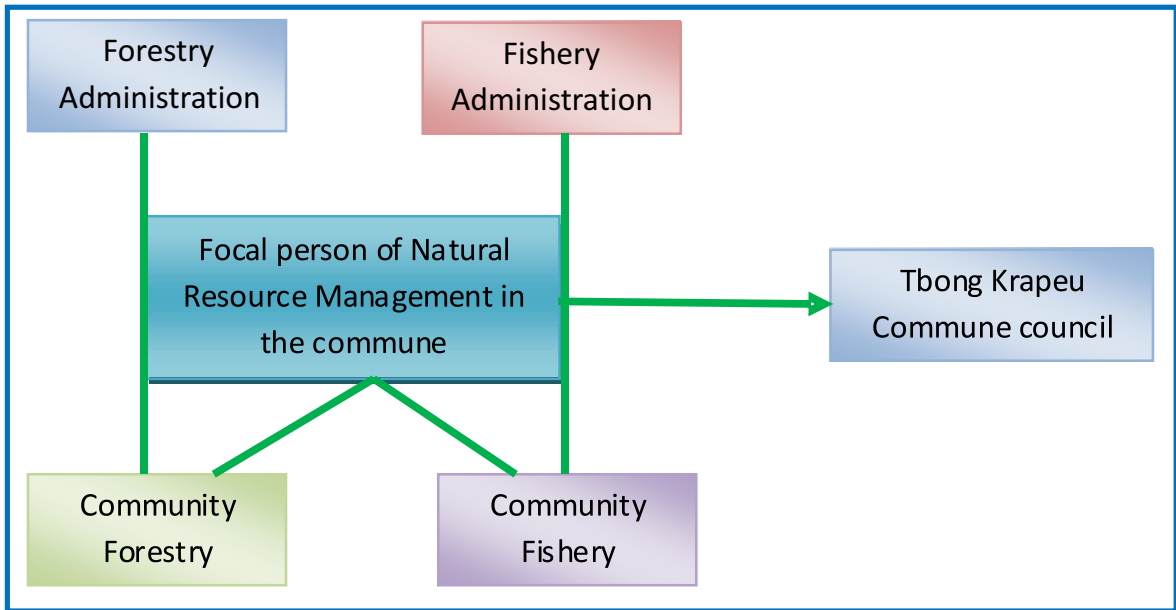
In the initial years of NRM implementation, there was a commune NRM committee which was responsible for assisting the village NRM committees. The main roles of the commune NRM committee were to intervene in conflict resolution and to respond to illegal activities. The commune NRM committee was also responsible for facilitating the election of village committees (Tbong Krapeu Commune NRM regulation 2003).

Even in the subsequent change in management scheme from NRM to CF, the commune councilors still continued to support this new NRM approach by assigning one of the commune council



members to play a part in the CF or community fisheries work in the commune. This person is known as the focal person of natural resources management in the commune.

Figure 1: The Link between commune council, Community Forestry and Community Fisheries in Tbong Krapeu Commune



Source: Diepart 2007

An example of the support from the commune councilors for the CF was their cooperation with the NRM-GTZ in the construction and posting of cement poles around the Prey Tbong Domrei CF boundary. In this work, NRM-GTZ provided funds for the cost of construction and transportation of cement poles to the CF area. The commune council responded by undertaking and monitoring the activity from the start until the work had been completed. The commune council also agreed to prepare an expenditure report for the NRM-GTZ who funded the activities. Initially, the



For this new mandate, 2007-1012, I planned to use 20 percent - 30 percent of Commune Investment Plan fund (supported by the government) to support the natural resource management in the commune.

Keang Sengky, Chief of Tbong Krapeu Commune Council



suggestion was for the CFMC to implement this initiative but the CFMC suggested seeking the help of the CC in constructing and transporting the cement poles to the village since it was not very easy for them to travel to the town where the cement poles construction was available.

In addition, the Chief of Tbong Krapeu commune incorporated the CF in the Commune Investment Plan (CIP) for 2006-2008 as the third priority activity on natural and environmental resource management. The CIP aims to address the priority activities for commune development. In the process of developing the CIP, each village listed its priority issues and submitted them to a commune meeting for validation. In a one-day meeting, the village chief and vice chief, and the commune councilors discussed and prioritized the village issues and came up with the key priority issues representing the whole commune. The inclusion of the CF initiative in the CIP is an indication of the interest not only of the CFMC and CF members but also of the whole commune, especially the commune council. This also encouraged the CFMC to improve and continue with their work even if the support of NRM-GTZ ends.

5. CHALLENGES TO IMPLEMENTATION OF DECENTRALIZED NRM

It is well known that Cambodia has embarked on a process of decentralization, including the establishment of elected commune councils in 2002 and 2007. The elections were significant milestones in the Cambodian government's policy of decentralization which was intended both to strengthen and to expand local democracy, and to promote development and reduce poverty (Pellini and Ayers, 2007). Among other things, the commune councils have, with regard to the law, prerogative in the protection of natural resources. They also have the difficult task of integrating NRM efforts into the overall spectrum of development activities for their commune (horizontal integration). In this respect, a key element of the relationships between commune councils and the local communities is the involvement of citizens in the local decision-making process.

On the other hand, since 2002, the forestry administration has also promoted some forms of forest co-management through support for Community Forestry organizations (vertical integration). The de-concentration process is also recognized and backed by legal documents (Forestry Law of 2002 and CF sub-decree in 2003).



If decentralization has created new spaces for community participation in matters that concern them (eg forestry), it has also emphasized the need to promote a sound dialogue between the stakeholders involved. In the forestry case, it is a tri-partite dialogue - the local community (namely Community Forestry) with the elected commune council and the forestry administration.

The challenges are many. While legal documents for decentralization and forest co-management do exist (though both are lacking clarity), there is a strong need to put them into practice and this requires guidance. In the first instance, there is indeed a need to clearly identify the roles and responsibilities of all people or institutions involved in forest management in a given place. This can be done through a sound local-level policy dialogue between the stakeholders. Second, in a traditional context of top-down decision-making, there is a strong need to develop the awareness and capability of local people in understanding the new context and in making their voices heard. In Chong Da, 50 percent of the villagers are illiterate; 40 percent did not complete primary school so taking an independent lead of an organization is a challenging task for them (CBNRM LI 2006). This can ideally be done once the institutional context is clarified between all stakeholders.

The experience of Tbong Krapeu shows that this local-level policy dialogue and participation of local communities in forest management can be achieved if certain conditions are met such as good leadership at commune level and real back-up by the forestry administration to effectively decentralize forest management to local communities. Furthermore, the facilitation of the whole process is crucial in ensuring the participation of the rural community in the dialogue and, even better, in the decision-making process. The experience of Tbong Krapeu has also shown some limitations in this regard and has emphasized the need for improved awareness raising and capability of the local community.

6. CONCLUSIONS AND RECOMMENDATIONS

The CF implementation in Chong Da village reflects the process of decentralization on NRM, especially the participation of local people in forest protection and management. The CF was established following the legislation and guidelines supporting the national forestry strategy of Cambodia and it is also in line with the overall decentralization process in place in Cambodia. In



this case study, NRM and forest management is not the concern of the CF alone. The commune council was a strong partner within CF in implementing decentralized NRM. Even if the legal framework does not provide power and rights to the commune councils to govern the forest, the commune council of Tbong Krapeu still played an important role in supporting the CF organization particularly the CFMC. The inclusion of CF issues in the CDP/CIP is a good indication of how the CF organization and commune councils can work together to encourage and promote decentralized forest management. The policy dialogue between stakeholders at the local level is definitively a key element for efficient decentralization in natural resource management.

This case study shows that, if certain conditions are met, Community Forestry can play an active role in decentralization policy and practices. CF can indeed be a link to promote bottom-up participation and then be a collective actor in implementing decentralization. Community Forestry offers citizens the opportunity to be more active participants in local governance, seeking out information and lending their voices to decision making.

This case study also shows some limitations in implementing decentralized NRM. Even if a policy dialogue can be established at local level between the FA and the commune council, there is still limited understanding among the villagers about the new institutional setting. Awareness raising and capability development remain key issues for decentralized forest management. The following suggestions are made so that the stakeholders can fully contribute to the process of decentralized NRM:

- Improve communication between CFMC and CF members to ensure information sharing about the CF activities within the community
- The commune council should continue its support to encourage and build the confidence of the CFMC and CF members for the on-going implementation of CF and the integration of CF activities into the Commune Development Plan.
- The local FA that is the institution responsible for CF support should actively support the needs of the community and do so with the systematic involvement of the commune council for instance in capability development activities.
- The capacity of the local community (members and CFMC) should be developed particularly in respect of how to respond to CF work and make decisions on how to use forest resources



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Case Study Two



THE EFFECTS OF CHANGES IN LAND USE AND COMMUNITY FORESTRY



THE EFFECTS OF CHANGES IN LAND USE AND COMMUNITY FORESTRY

Researched and Written by:

Hou Vong Vichheka, Research/Training Assistant Volunteer - CBNRM Learning Institute

Meam Sito, Vice Chief of Stong FA Triage

Tol Sokchea, Research/Training Assistant - CBNRM Learning Institute

Key Message: Community Forestry is a strategy that can reduce forest clearance.

1. INTRODUCTION

Cambodia is rich in natural resources such as forest, wildlife, fish, rivers, lakes, and other mineral resources. In particular, there are many valuable timber trees. Unfortunately, forest resources throughout the country have been dramatically degraded since 1979 due to civil war, lack of law enforcement, inappropriate exploitation, population growth, lack of clear management schemes, clearance for agro-industrial cropping, and the use of modern technology that has brought about new equipment for logging and hunting (Meas Sokhum et al., 2002). To respond to the issue of degradation, the Royal Government of Cambodia (RGC) has been trying several approaches and methods to protect and safeguard the forest. The establishment of Community Forestry (CF) by providing rights to local communities to govern the forest is one strategy in this direction. CF is slowly contributing not only to forest protection but also contribute to livelihood for local people who are relying on the forest.

In Chong Da village, Tbong Krapeu commune, Steung Sen district, Kampong Thom province, forest resources have decreased because of charcoal production, clearing for plantation purposes, and the fact that land has been claimed for selling (Ly Kanara 2004). Because of the decrease in forests, daily lives of local people in the area have been affected. Consequently, the local people initiated the establishment and implementation of CF in order to ensure the sustainable use and protection of forest resources. This case study gives a clear example of how forest land changed as a result of different uses and the significance of the CF in forest protection.



2. GENERAL INFORMATION

Chong Da is a village in Tbong Krapeu commune, Steng Sen district, Kampong Thom province with a population of 1,134 people, 573 of whom (51 percent) are women. The village has 257 families. About 75 percent of the villagers are farmers (CBNRM-LI-GTZ RDP 2006). Chong Da is adjacent to Kal Mek village, Tbong Krapeu commune and Anlong Krasang village, Kampong Svay commune to the north, Tbong Krapeu village, KoKos commune to the south, Tapreach village, Tipou commune to the east and Ampous village, Tbong Krapeu commune to the west.

Before 1990, Chong Da village had abundant forest resources with many valuable timber trees such as *Sindora siamensis* (*Fabaceae-Caesalpinoideae*), *Dipterocarpus alatus* (*Dipterocarpaceae*), *Anisoptera costata* (*Dipterocarpaceae*), *Hopea recopei* (*Dipterocarpaceae*), and *Diptrocarppus obtusifolius* (*Dipterocarpaceae*). The decline in forest resources started in 1990 due to the increase in charcoal production and forest land claimed for private ownership. At that time, most of the area was covered by deciduous forest. The villagers practiced shifting cultivation for their traditional rice growing (locally known as bos plantation) but these activities did not seriously affect the forest because only a few villagers were involved.

From 2002-2003 more forest areas were cleared for plantations. Villagers cleared forest land and secured their new property by planting perennial crop trees. During this time, the claimed land was converted into cashew plantations because of the high market value of this crop. From this time until 2005, most of the forest areas were cleared and converted into cashew plantations. These were sold to outside merchants from Kampong Thom, Kampong Cham or Phnom Penh. At the same time, acacia plantation also began. This negatively affected the local people, particularly those who lost their grazing land. Conflict between local people and cashew and acacia plantation owners took place when their cattle wandered into the plantations.

From 2005-2007, the Bos and cashew plantations were sold to outside investors and companies from Kampong Thom. As more land was sold, more forest areas were converted to acacia and fruit tree plantations. Forest was also cleared to extract laterite and sandstone for use in construction. Villagers have said that in recent years, they are having difficulties in farming because of limited rainfall and lack of water storage in the soil due to the depletion of the forest.



Picture of Acacia Plantation

Photo by: Community Forestry Research and Monitoring Project Team, CBNRM Learning Institute - 2007



Sandstone quarry in Chong Da village

Photo by: Community Forestry Research and Monitoring Project Team, CBNRM Learning Institute - 2007

This change of forest land into other land use has seriously affected villagers. In particular they have lost grazing land, have had difficulty in accessing rice fields located in the middle of the acacia plantations, and have faced greater challenges in collecting NTFP. For people who have relied mainly on the forest for their livelihoods, particularly in collecting fire wood and NTFP, this change means that they have had to spend more time walking further into the forest to get wood and other NTFP.



“Before the land was sold, I could collect fire wood easily from the nearby village but now I have to drive my oxcart 20 km far from the village and this takes so much of my time.”

Mr. Dy Heng, a 45 years old CF member

3. EFFECTS AND BENEFITS OF CF IMPLEMENTATION

CF establishment

The forest in Chong Da was mostly degraded before the CF was established in 2001. In order to protect the forest from being claimed and to safeguard this valuable resource, Chong Da villagers



and the local authorities proposed the implementation of the CF. Full financial and technical support for this initiative was provided by the Natural Resource Management (NRM) component of GTZ/RDP Program of Kampong Thom province with the strong cooperation of the local Forestry Administration (FA) and other related institutions. The CF in Chong Da was officially named Prey Tbong Domrei and established on 7th July, 2001. At that time, it was still referred to as an integrated NRM community. A total of 548 people registered as CF members, 284 (52 percent) of whom are women. The 11 Community Forestry Management Committee members and three advisers were responsible for leading and implementing the CF work. There are two different management blocks in this CF - Tbong Domrei covering 149.07 hectares and Trapang Pong Ro with a size of 4.57 hectares.

The management of the CF

There are two important aspects in the management of the CF in Prey Tbong Domrei. One is the design of supporting management documents that serve as guides and rules for CF management. The other aspect refers to the real activities of the CFMC and CF members. Combined, these make the CF an effective local organization in forest protection and management.

The existing management documents supporting the CF management include the CF by-law, Community Forestry Management Committee (CFMC) regulations, and CF management plan. These documents were prepared by the CF members and CFMC with facilitation efforts by the Local FA and Provincial Environment Department (PED) with external support from GTZ-RDP. There was good participation from CF members and local people in producing all of these management documents.

The management activities of the CF include regular patrolling and reporting of illegal activities in the CF areas, information dissemination and asking for external support.

There are four patrolling teams composed of CFMC and CF members. The teams patrol the CF area every three days to prevent the forest in the CF area from being cut down. The assistance of other CF members in reporting illegal activities in the CF area is very important because the patrolling team cannot work every day and especially not at night. To farm in their fields or to go to their grazing land, Chong Da villagers pass by the CF area so this provides them with



opportunities to look after the CF area. They always report illegal activity to the CFMC, such as illegal logging.

The dissemination of CF information to local people is viewed as an important achievement of the CF. Through village meetings, signboards about CF regulations and oral exchanges of the CF concept and its value, Chong Da villagers have begun to think of CF as a positive means of supporting their livelihoods. Consequently, their commitment to being involved in the CF has increased accordingly. Further extension work has been conducted in Chong Da CF during commune meetings to widen information dissemination and to make other villagers aware of the CF organization. This way, it is hoped that an increase in CF awareness will minimize conflicts between villages.

Support from external actors has also been important in developing and strengthening the CF. The Chong Da CF has been supported actively by the local authorities, especially the commune council, making the CF stronger and more effective. The commune council has always extended assistance to the CFMC, particularly when other villagers have tried to claim CF land. The efforts of the commune council chief of Tbong Krapeu against the claims of the O Sala village, Kampong Svay commune on the CF land were successful and the Chong Da inhabitants were able to get their land back through facilitation of related institutions.

People's thoughts about the CF

Villagers have always regarded the CF area as a critical aspect for their daily lives in, for instance, providing NTFP and grazing land for their cattle. Even if the forest today is not as large as its original size, its value remains the same. People are placing their hope in CF as a good way to protect the little forest left in their area. Presently, there are indications that forest land is slowly increasing. A good future where village demands are met by forest resources is an expectation that is raised by the positive results of CF. In contrast, villagers think that without the CF establishment, there would be no forest left. Local people would thus face serious problems such as the absence of grazing land and the loss of NTFP for their daily needs e.g. firewood, fruits and vegetables. Without forest protection, people would not be able to collect forest resources freely and they would have to buy them instead. This would be an added expenditure for households and a great economic burden on the village.



"I think the CF is an appropriate way to manage the forest. It is helping to prevent the forest from becoming extinct. Additionally, CF areas partly provide villagers with NTFP for their daily needs."

Muong Prang, a CF member

The forest condition after CF establishment

Since the establishment of the CF, the forest condition is perceived to have changed remarkably. Focus group discussions with CF members indicate that while there is a trend of decreasing forest land and increasing size of cashew and acacia plantations from 2001 to 2007, they perceive increasing positive results from CF. Today, the CF area can provide villagers with diversity products such as medicinal plants, fruits and vegetables, mushrooms, and other NTFPs which people can either use for family needs or for selling to generate income for households. Moreover, it was perceived that all CF members continuously acquire NTFPs for their daily needs (CBNRM LI-GTZ-RDP 2006).



Picture of CF areas in the year 2007

Photo by: Community Forestry Research and Monitoring Project Team, CBNRM Learning Institute - 2007

The benefits from CF are perceived to be maintaining (if when increasing in Trapeang Pong Ro) because of good forest management. For example, the CF is divided into different areas for management (for use and for protection), appropriate methods are advocated to collect the NTFP, at the same time the collection of NTFP is reduced to increase growth, and activities are implemented to encourage reforestation and to conserve wildlife species.

4. COMMUNITY FORESTRY AND THE EFFECTS OF LAND USE CHANGE

The land use maps of 1992 and 2007 covering the entire forest area in Chong Da village show that most forest resources have been lost already. One can observe that a large part of the forest

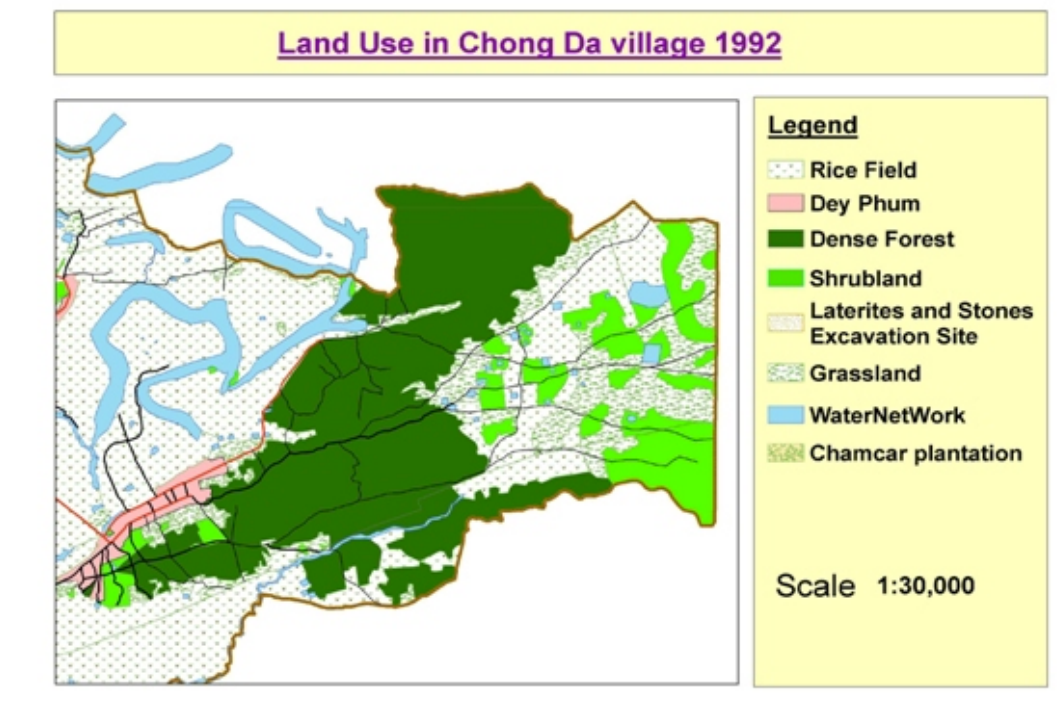


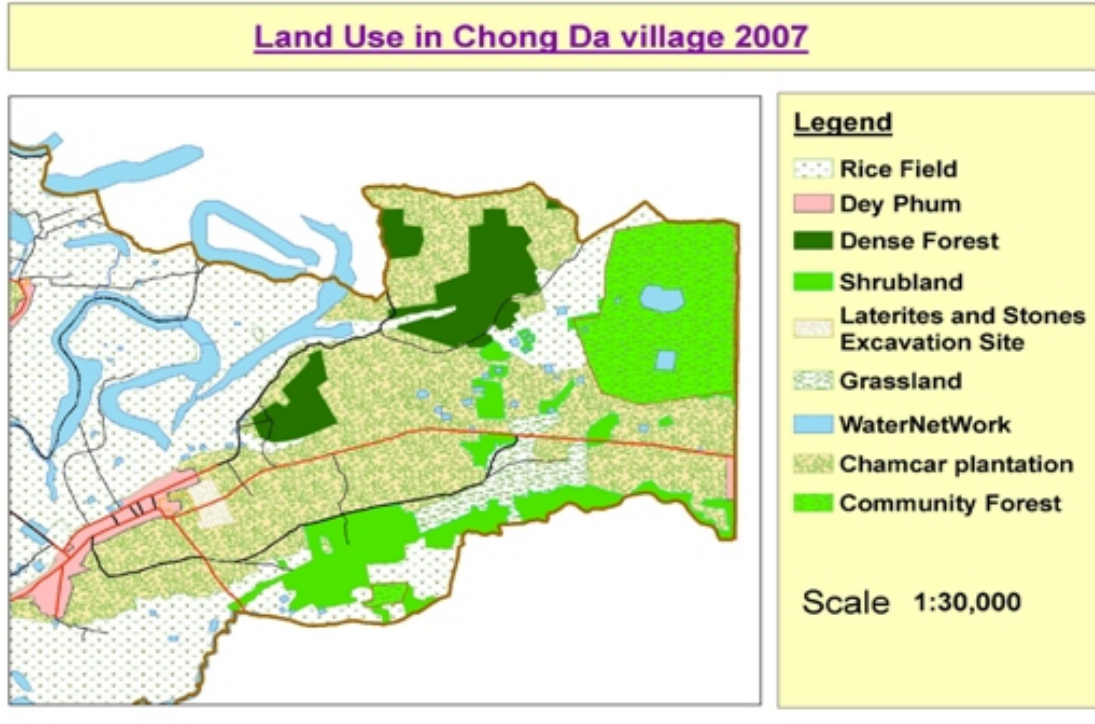
has been converted to acacia, cashew or fruit plantations. Only the CF area shows acceptable forest conditions (dense and clear shrub land) while the rest has been converted into perennial crop plantations (see Figure 1).

The conversion of forest lands into acacia, cashew and fruit plantation in Chong Da village has affected the local people's livelihoods. There are conflicts between acacia plantation owners and villagers who have adjoining small pieces of farm land. Some villagers have complained that some plantation owners will not allow them to pass through their land to get to their paddy fields so they have to drive their oxcarts further. The villagers added that if this situation is not changed, they will be forced to sell their remaining land.

A decrease in forest resources results in a shortage of forest for consumption. The areas outside the CF are no longer forested so people compete now for NTFP collection mainly inside CF area. However, the trees in the CF area are too small to provide enough NTFP or other products for all users. If forest resource use in the CF is not managed, the CF area might be lost, too. The CFMC must reflect on this and be proactive in finding workable means to protect the CF area.

Figure 1: Map of Land Use Changes in Chong Da Village from 1992 to 2007





Source: Spatial analysis done by the case study research team based on aerial photographs

5. CONCLUSIONS AND RECOMMENDATIONS

Forest resources in Chong Da village have been destroyed because of activities such as cutting for Bos plantation, firewood collection, conversion of forest land for cashew and acacia plantations, the claiming of forest land for private ownership, and the selling forest land to outside investors. The escalation of these activities over the years worried people and made them think about how to protect the remaining forest and shrub land. The destruction of the forest resources made the local people want to establish the CF.

The establishment of CF in Chong Da village has solved the problems of forest destruction. The remaining forest land in the village is only that found in the CF area. The land outside of the CF is now privately owned land and plantations. Even if protection of the forest is taking place only inside the CF, this case study shows that CF can be a method to prevent forest from being lost if it is managed and maintained well by the CFMC and CF members.



The study also indicates that some CF members had the wrong impression about CF management. They protected their forest inside the CF but destroyed it in other areas in order to supply their needs. Some lands around the CF area were also claimed by the CF members for farming or to sell. On the other hand, the CFMC is not yet very confident in its work because it does not know whether its activities are legal or not. The main reason is the slow process through which the CF agreement is being released, which provides legal rights for the CFMC and CF members to manage the forest.

This case study shows that CF can be a tool to protect forest resources but there are still questions about its capability. Further research is needed to provide more evidence that will show the benefits and potential of CF in sustainable forest management.

The following recommendations are raised:

- Government and relevant institutions must help the local community to work against the claiming of forest land not only inside the CF but also in the adjoining forest land
- Community Forestry agreement is key in boosting the confidence of local people in their ability to manage their forest
- There are some CFMC members who do not carry out their responsibilities well. In such cases, the CFMC must check on its members to strengthen their response to CF management





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Case Study Three



THE USE OF TIMBER AND NON-TIMBER FOREST PRODUCTS IN THE COMMUNITY FORESTRY AREA



THE USE OF TIMBER AND NON-TIMBER FOREST PRODUCTS IN THE COMMUNITY FORESTRY AREA

Researched and Written by:

Nop Chhaya, Staff of Baray FA Triage

To Sothea, Vice Chief of Tang Krosang FA Triage

Key Message: Timber and non-timber forest product are important elements in the livelihoods strategies of CF members

1. INTRODUCTION

In Cambodia, community-based forest management has been implemented since the 1990s with the participation and involvement of various stakeholders, especially the Royal Government of Cambodia (RGC). The Forestry Administration (FA) has been trying hard to design policy and legal frameworks for CF to be recognized as a pillar of the forest reform.

Kampong Thom is a province endowed with natural resources particularly forest. Unfortunately during the decades of civil war, most of these natural resources have been lost by overexploitation, forest clearance for shifting cultivation, or for the establishment of private perennial crop plantations. In this context, rural communities that are dependent on timber and non timber forest products (NTFPs) became interested in establishing CF in order to protect and manage these resources in a sustainable way.

This case study aims to analyze the traditional use of timber and non-timber forest products among local people and their importance to the livelihoods of families living in a Community Forestry (CF) area.

2. GENERAL INFORMATION

Kbal Bey is one of the 11 villages of Tipou commune, Santuk district, Kampong Thom province which is 36 kilometers away from the provincial town.



Background Of The Cf In Kbal Bey

The CF in Kbal Bey was established on 8th May, 2003, as a natural resource management (NRM) community. The forest area of the CF covers 768 hectares. This initiative was facilitated by the local Forestry Administration and the Provincial Department of the Environment. The process was further supported financially and technically by the natural resource management (NRM) component of the rural development program of German Technical Cooperation (GTZ/RDP) in Kampong Thom.

Later on when the CF sub-decree was approved, the NRM community was reformed and became a Community Forestry scheme. The aim of CF establishment was to respond to the decrease in the forest area available for shifting cultivation and for private perennial crop plantations. Another important objective of the CF was to reduce poverty and to maintain forest resources for the use of future generations.

Forest Condition

As showed by the map of forest cover in 2002, the 768 hectares of Kbal Bey CF consists of deciduous forest. This area is divided into two management blocks: one for forest protection and another for consumption. According to the inventory in 2003 there are 56 species of trees in this CF such as Popel, Trach, Kandoul, Kantrob, Pryng Sor, Chromas, Angkot Khmao, Kring, Troying, Ambeng Ches, Krang (Management Plan of Kbal Bey CF 2003, pp. 1-2)

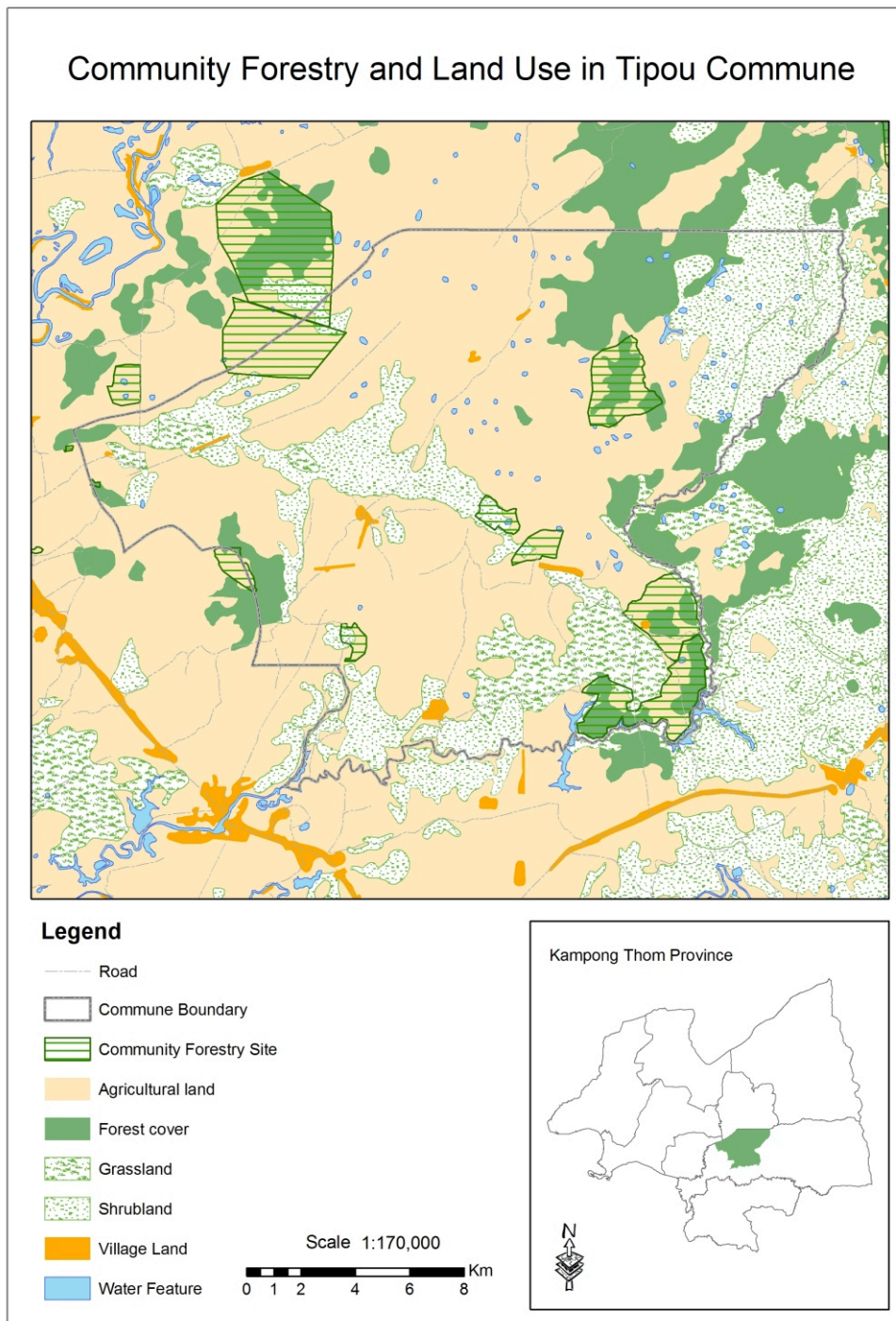
CF Stakeholders (Insiders)

The Community Forestry Management Committee (CFMC)

There are 10 CFMC members and they are responsible for three patrolling teams. The CFMC members were elected during a transparent election by CF members. The election process was facilitated and observed by local authority representatives, local FA staff, Provincial Environmental Department (PED) staff, and representatives from other related institutions.



Figure 1: Map of Land Use of Kbal Bey CF



Source: GTZ/RDP, Natural Resources Management Component, 2007



CF Members

There are 49 households registered as CF members which represent a total of 120 people (58 females). To become a CF member, each person must voluntarily register and meet some criteria such being at least 18 years old, residing in the village of the CF and holding an ID card recognize by the local authority. Each CF member has a responsibility to contribute 100 riel each month to support the CF fund. (CF Regulation, 2007)

3. FOREST ACTIVITIES AND PRODUCTS IN THE LIVELIHOOD STRATEGIES OF RURAL HOUSEHOLDS

Household Information

On average, there are six people per household; four of them are up to 17 years in age. The household leader is on average 43 years old. The main occupation of the villagers is farming. The households have an average of 0.58 hectares of land for settlement and for conducting family cropping work.

Production Functions

Each household, on average, has 1.7 hectares of agricultural land, mainly used for rice production. Besides rice, rural families use their land as a perennial crop family-based plantation. The cropping system is typically agro-forestry. The main farming crop is late maturing rice which takes six months to grow. Due to a weak water control system and the poor soil condition, the average yield is approximately 1 ton/hectare. Nevertheless, with the population growth, the farmers have enlarged their agricultural land in order to increase the paddy production. This has had a negative impact on the forest cover.

Activities Related to Forest Areas

Generally, the people in the village gather timber and NTFPs from the CF area and outside the CF. Detailed household investigations in respect of forestry activities showed that the average distance covered by the families to reach their forest area is 5.5 kilometers (a minimum of 2



kilometers and maximum of 10 kilometers). All year round, villagers go to the forest where they collect timber and NTFP. The diagram drawn from quantitative information collected at the household level shows that the time spent per family in forest activities is higher during the dry season because they are traditionally busier with rice cultivation in the rainy season (Refer to Table 1).

Table1: Seasonal calendar of timber and NTFP collection

Month	1	2	3	4	5	6	7	8	9	10	11	12
	Dry Season					Rainy Season						Dry Season
Total number of days/family in forest-related activities	12	9	9	9	10	7	8	8	8	8	8	8

Source: Village interview, 24th -26th April, 2007

For the time being, all the CF members are allowed to collect and harvest timber and NTFPs for traditional use from the CF area. This traditional use is defined in Article 40 of the Forestry Law and includes collecting dead wood, picking fruits and wild vegetables, bee harvesting, collecting resin, extracting wood for building houses, cages for animal and agricultural equipment, cutting the grass for cattle or allowing them to graze there.

Table 2 shows the key timber and NTFP products in the Kbal Bey CF based on the participative forest inventory conducted in the perspective (I'm not sure that the word `perspective' means here)of the CF management plans.





Table 2: Key timber and NTFP in the Kbal Bey CF

Type	Khmer Names
Wood for small-scale construction	<i>Phdeak, Trach, Kokos, Tbeng, Chombok, Chromas, Thnung, Pring, Srol, Srokom, Kondoul, Sompour, Tromeng, Kreul, Popel, Svay prey</i>
Agricultural equipment (plows, harr ows, handles for of plows, shoes, bodies of carts, yokes, ...)	<i>Popel, Trosek, Chombok, Trach Pring</i>
Medicinal plants	<i>Vor Lmeat, Daskun, Vor Kuy, Tik dos, Krokhub, Khvay, Vor Dek, Pok veay, Srom dav, Mrech Ansay, Chheu Pleung, Kor mouy, Krobey Trous</i>
Wild vegetables	<i>Trouy Smach, Tompeng, Tromoung, Laang, Kom Phdao, Soum Phaav, Pset, Domlong prey, Sondann, Mdenh, ...</i>
Wild fruits	<i>Kuy, Seman, Pring, Romdoul, Tromoung, Prous, Treal, Srokom, Mdenh, Kokos, Korlanh</i>
Resin trees	<i>Kreul, Srol, Trach</i>

Source: Kbal Bey CF Management Plan 2003

4. DIFFERENCES BETWEEN TIMBER AND NTFP CONSUMPTION

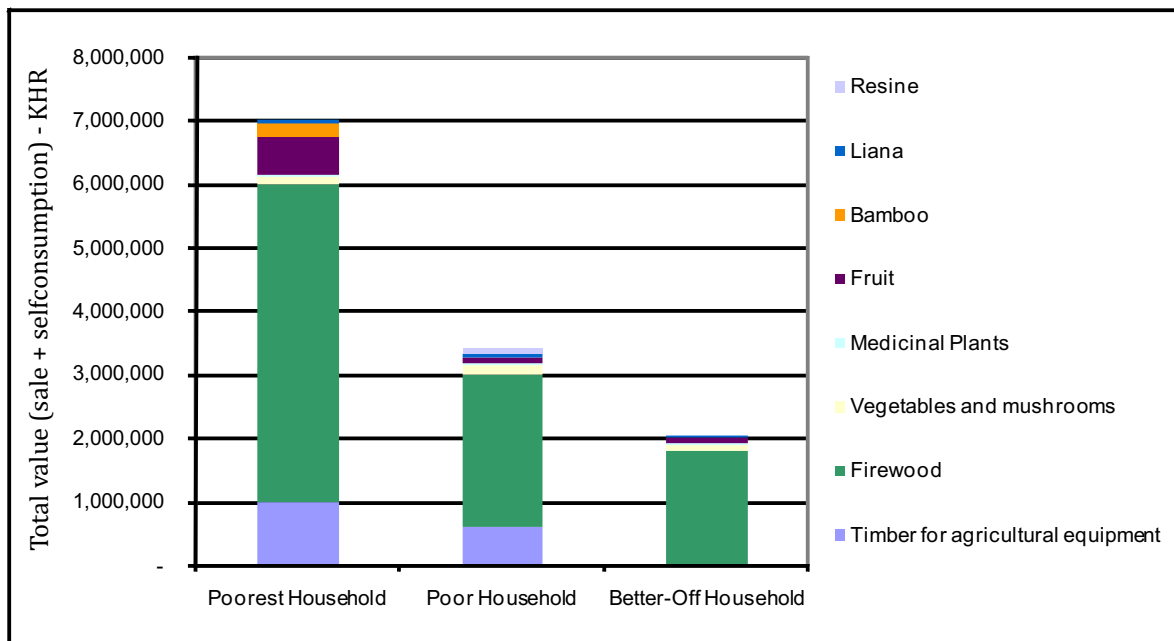
A wealth ranking exercise carried out with the participation of the village authorities allowed the households to be classified into three categories: the poorest, poor and medium. Based on the results of this classification, archetype households were interviewed in detail on their consumption of timber and NTFP.

For a large variety of timber and NTFP products, the respondents were invited to estimate, in monetary terms, the amount of each product they use in one year for either self-consumption or for sale. First of all, the analysis shows that the income from timber and NTFP collection is, on average, 4,000,000 riel a year per household (four millions riel per year). This clearly indicates the importance of forest resources in their livelihoods.

The quantitative results of the investigation, combined with more qualitative questions on the contribution of the timber and NTFPs products to livelihoods brought some very distinct answers according to the wealth of the respondent. The results of the comparative analysis are displayed in the figure below.



Figure 2: Diagram of Different Uses of Timber and NTFP



Source: Village interviews, 24th- 26th April, 2007

The consumption of timber and NTFP among the poorest families is comparatively far greater than it is among the poor and better off families. The CF resources are crucial to them especially because they can sell a lot of these products to the local markets.

I am very happy with the establishment of the CF because it helps in maintaining my living. I can reduce expenses by getting timber for building my house, collect NTFP such as wild vegetables, wild fruits, and medical plants from the CF area.

Mr. Kin, one of the poorest of the Kbal Bey villagers

Although their standard of living is better than it is for the poorest, the poor households still use timber and NTFP for their daily subsistence. They sell relatively fewer of those products but still rely on them to supplement the family budget.





The use of forest products is least important to the better off households in Kbal Bey CF.

The CF reduces the poverty of local people by providing agricultural equipment, pole trees, medicinal plants, vegetables, fruits (for household use and sale). They do not need to buy those products from the market. Moreover, the CF area provides a grazing place, wildlife habitat, and particularly protects against the land grabbing activities of other people.



For the poorest families the need to use timber and NTFP from the CF is higher than it is among the other two groups since they have to collect NTFP for their households and for consumption and for sale. Another coping strategy of the poor households is to go out of the village and find jobs as wage laborers somewhere else.

Mr. Phan Try, chief of CF.

5. CONCLUSIONS AND RECOMMENDATIONS

This case study aims to understand the use of timber and NTFP inside the CF area and its significant impacts on the local people's livelihoods. Based on the analysis of data and information gathered we can conclude that:

- Forest is a key component of local agro-ecosystem. It protects water resources, maintains soil fertility and contribute the livelihoods of local people
- Forest activities are an integral part of the labor diversification strategies of local people throughout the year especially in the dry season. When they are not busy with their farming work, people can collect timber and NTFP to support their living, and supplement their farming produce.
- The timber and NTFP are crucial to the livelihoods of the poorest not only because they enable them to save money but also because they are an important source of cash income through direct sales to kampong Thmor market. The CFMC should inform their members that protecting a community forest is by no means meant to put pressure on other forest areas that are not under the protection and the management of a community forestry organization. Through the research conducted for this case study, some recommendations



can be formulated for the future management and use of timber and NTFP.

- The CFMC should be more responsive to the use of the forest and set up an active system to patrol the CF two to three times a week.
- If a community forestry organization is willing to promote the marketing of timber and NTFP, it should be done for the benefit of the poorest and not for the benefit of the local elite.
- The local FA and other relevant institutions should increase their financial and technical support to encourage local people to enhance their CF management.

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Case Study Four



THE MARKETING SYSTEM OF NTFP IN A COMMUNITY FORESTRY ORGANIZATION



THE MARKETING SYSTEM OF NTFP IN A COMMUNITY FORESTRY ORGANIZATION

Researched and Written by:

Meas Sothun Vathanak, Field Team Facilitator-CBNRM Learning Institute

Im Maredi, Project Advisor - CBNRM Learning Institute

Key message: A market system for non-timber forest products in a community will help to increase the household income of local people.

1. INTRODUCTION

Forest timber and non-timber forest products (NTFP) are important resources for the local people. Apart from construction wood, NTFP play important roles in supporting the livelihoods of people in the community. People collect NTFP either for family use or sale. Products can be used to create items such as plows, baskets, roof material, cattle corrals or enclosures, and poles. Edible items include mushrooms and wild vegetables. NTFP are sold within or outside the community. Sometime they are sold to outsiders who come to the community to buy their products.

In Choam Thnanh village, people collect NTFP to sell within their village or to middlemen far out the village. The quantities and prices of the NTFP marketed are changing according to season (availability of resources) and according to availability of labor (trade-off between farm, non farm and off farm work). On the other hand, due to the increasing number of middlemen and outsiders in the village, the quantity and price of harvested NTFP have recently . When they are sold to middlemen who sell to individual households, the price of the NTFP is lower compared with when they are sold direct to Kampong Thmar or Tang Krasang markets.

This case study shows the potential of setting up a market system in the village. Specifically, this study illustrates the value of NTFP to local people, the NTFP market price, marketing flow of NTFP and the potential for establishing a market for NTFP harvesting in Choam Thnanh village, Tipou commune, Santuk district, Kampong Thom province.



2. GENERAL INFORMATION

Santuk is one of the eight districts of Kampong Thom, located southeast of the province. Tipou is a commune of Santuk district with the population of 8,018 people, 4,192 (or 51 percent) of whom are women. The commune has 1,521 families. Tipou commune covers 35,162 hectares which includes 5,754 hectares of forest (Commune Council of Tipou 2007).

Choam Thnanh is one of the 11 villages of Tipou commune located 45 kilometers from Kampong Thom town. It shares its border with Bous Chombok and Svay village in the north. Its east border is adjacent to Chhouk Romdoul village, the southern border is close to Plong village, and the west is attached to Somroung village. There are 88 families living in this village representing 236 people (Choam Thnanh Village Statistics 2007).

Before 1979, the forest in this village was thick with valuable trees such as Phdirk (*Anisoptera glabra*), Trach (*Dipterocarpus intricatus*), Popel (*Hopea Recopei*), kakos (*Sindora cochinchinensis*), Chramas (*Vatica Odorate*), T beng (*Dipterocarpus Obtusifolius*), Kreul (*Anacardiaceae*), Sral (*Pinus merkusii*), Tatrav (*Fragraea fragran*), Kranhoung (*Dalbergia cochinchinensis*) and many varieties of wildlife including tigers, elephants, deer, bears and snakes. These resources have been lost through illegal logging and hunting, and land grabbing for agricultural purposes in the 1980s to the early 1990s. By 1992, the impact of forest destruction was heavily felt by the Choam Thnanh villagers and they began to think of protecting their remaining forest. The villagers asked their village chief to stop outsiders from collecting NTFP in their forest. By 2001, the Prey Cheung Phoum CF was established with a demarcated land area of 143.86 hectares. To do this, the rural development program of German Technical Cooperation (GTZ/RDP) helped the Forestry Administration (triage and cantonment) and the department of the Environment to facilitate and strengthen this CF in forest management (CFMC of Choam Thnanh 2003).



Patrol the forest
Photo by: Community Forestry Research and Monitoring Project Team,
CBNRM Learning Institute - 2007



With the establishment of the CF, the villagers became involved in drafting the regulations and in making decisions about how to use NTFP in a sustainable way. In this manner, the local villagers became more involved in deciding how to use and sell the NTFP for their daily income (selling mushrooms, fruit, small vines, hardwood and firewood. It was hoped this may contribute to their livelihoods.

3. THE IMPORTANCE OF NTFP IN THE CF

A majority of Choam Thnanh residents have relied on timber and NTFP for their daily income and survival. Besides farming, collecting NTFP is critical to support their living and to supplement their food supplies for the whole year in general and during specific periods in particular. Since the establishment of the CF, the management plan, regulations and by-laws have been prepared to ensure the sustainable use of forest resources, including NTFP. The CF regulations and management plan recognize the right of the local community to use the CF for traditional purposes and allows for the villagers' use of timbers and NTFP. Specifically, Article 12 of the CF regulations stipulates that villagers are allowed to extract the following NTFP from the CF area: deadwood, vines, mushrooms, wild vegetables, fruits, medical plants, and potatoes. Although harvesting NTFP for construction and agricultural equipment materials is allowed, permission from the CFMC is required (Village NRM Committee of Choam Thnanh 2003).

Types and Quantity of NTFP

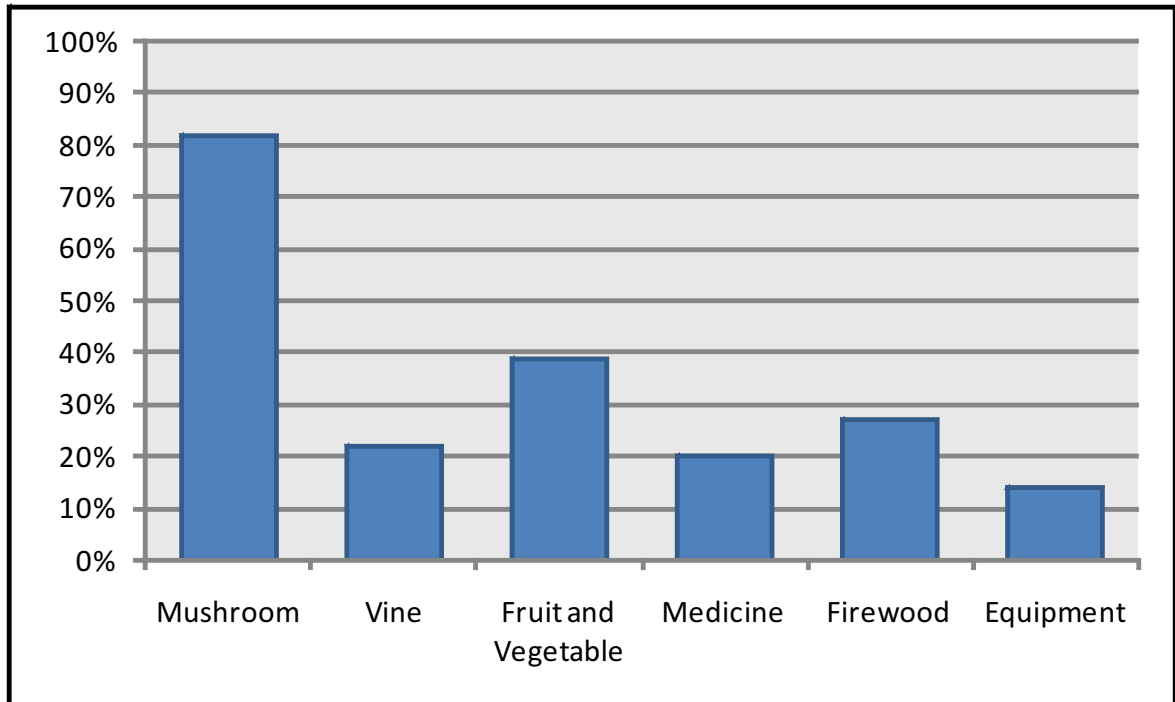
The different types of NTFP collected include firewood and hardwood which they either use or sell to other villagers or outsiders. Pole trees are collected only for household use. Other NTFP like wild vegetables, fruits or mushrooms are collected for food and for small scale trading within their village. Deadwood and mushrooms can be collected from the CF while pole trees, firewood, and hardwood are harvested outside the CF in larger quantities.



Firewood sells in village
Photo by: Community Forestry Research and Monitoring Project Team,
CBNRM Learning Institute - 2007



Figure 1: Percentage of household who collected NTFP in Choam Thnanh Village



Source: CBNRM LI-GTZ-RDP 2006, page 15

Figure 1 shows the percentage of households who collect NTFP in Choam Thnanh village. It shows that 82% of the households collect mushrooms, while 39% of them only collect fruits and vegetables. Besides, 27% of the households investigated collect firewood and 22% collect vine to produce handicrafts product. Furthermore, 20% of the families harvest medicinal plants while only 14% use forest products for the construction of agricultural equipments.

The harvesting of NTFP varies according to the season and its type (refer to Table 1). Some NTFP can be collected throughout the year while some are available only seasonally.



NTFP, Kuy collected from forest
Photo by: Community Forestry Research and Monitoring Project Team, CBNRM Learning Institute - 2007



Local people do not collect NTFP the whole year because of their farming work. For example, mushrooms are usually collected during the rainy months of May to October for three to four days; one household can collect five to 30 kg per day. Fruits such as *kuy* (*Willughbeia cochinchinensis*) and *role or semoin* (*nephelium hypoleceum kurz*) can be harvested 10 to 15 days/harvest during its season; a household can pick four to five kg of fruits a day. Other NTFP types are used as material for family equipment such as shelters for cattle, poles, and chicken cages. About 10 to 20 poles per harvest are collected for this purpose; these are collected both inside and outside the CF area.

Table 1: Types and Quantity of NTFP collected in Choam Thnanh Village

TYPES OF NTFP COLLECTED BY CHOAM THNANH VILLAGERS INSIDE AND OUTSIDE OF THE CF	QUANTITY OF NTFP COLLECTED IN A YEAR per household
Mushrooms	5-30 kg/day collected from 3-4 days/harvest during May to September
Kuy and <i>role or semoin</i>	4-5 kg/day collected from 10-15days/harvest during March to May
Hardwood (Pole)	10-20 poles/harvest

Source: Interviews with CFMC, September 2007

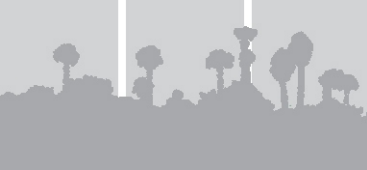
The harvesting of firewood and hardwood depends on the demands of the middlemen. If there is no demand for firewood, I just collect for family use.

Mr. Ho Soum, 45 years old

NTFPs are sold to middlemen from the village or to outside middlemen (Refer to Figure 2). There are four middlemen in the village who directly buy the NTFP from the villagers and sell to outside merchants who also come to the village. There is stiff competition between the outside merchants and middlemen in the village, especially when there is low NTFP supply. All middlemen buy the NTFP from individual households.

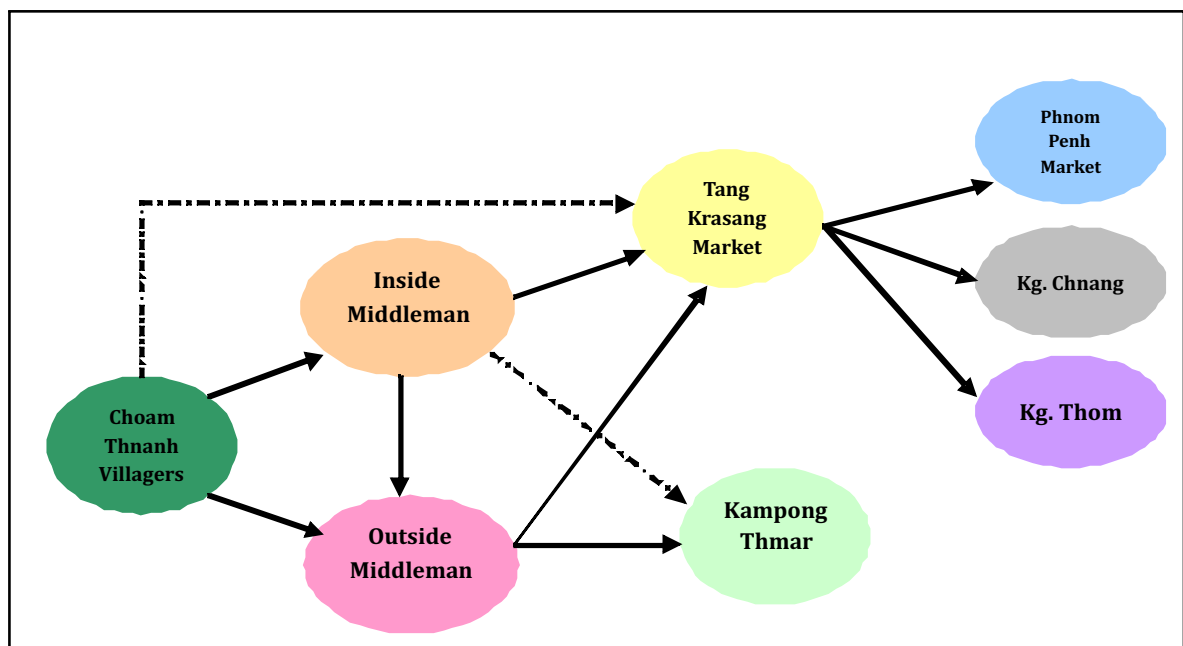


Middle women in village
Photo by: Community Forestry Research and Monitoring Project Team, CBNRM Learning Institute - 2007



NTFP are then sold by the middlemen in two places: Tang Krasang market which is 18 kilometers away from the village and Kampong Thmar market which is 28 kilometers from the village. Before the road to Tang Krasang was constructed, most villagers sold their NTFP to Kampong Thmar. However, by 2005, the road to Tang Krasang was built and some people began to change the place where they sold their products. From Tang Krasang, the NTFP were then sold at Kampong Thom, Kampong Chhnang and Phnom Penh markets (Community Forestry Division/Forestry Administration 2005).

Figure 2: The Marketing Flow of NTFP in Choam Thnanh Village



Source: Interviews with middlemen, September 2007

Legend:

→ Where product is sold all the time

- - - → Where product is sold sometimes

Generally, there are no fixed prices for NTFP. The market price is determined by two factors: level of supply and individual negotiation. When the NTFP supply is high, the selling price decreases and vice versa. In the village, mushrooms are sold at 1,000-3,000 riels per kilogram, kuy are sold at 1,000 riels/kilogram, pring and rom doul are sold at 100 riels per can, wild potato at 1,000 riels/kilogram, role at 2,000 riels/kilogram, small vines at 6,000 riels/kilogram, firewood at



8,000 to 12,000 riels per cubic meter and hardwood at 2,500/unit (See Table 2).

The selling price of NTFPs is higher when they are sold at Tang Krasang market. For example, mushrooms can be sold from 1,300 to 4,000 riels per kilogram and the price of kuys increases from 1,300 to 2,500 riels/kilogram. The difference in the selling price appears to be small but the gap between the prices becomes higher if the total produce is considered. Hardwood is the only product that is usually sold to the outside middlemen because transporting it to the market is costly for villagers and inside middlemen.



Picture: middl women in village
Photo by: Community Forestry Research and Monitoring Project Team, CBNRM Learning Institute - 2007

Table 2: Selling Price of NTFP at the village and Tang Krasang market

NTFP Type	Price of NTFP if sold at the village/kilogram	Price of NTFP if sold at Tang Krasang/kilogram
Mushroom	1,000-3,000	1,300-4,000
Kuy	1,000	1,300-2,500
Pring and rom doul	*100	*200
Wild potato	1,000	1,500
Role	2,000	2,500
Small vine	6,000	7,000
Firewood (m3)	**8,000- 12,000	** 12,000-13,000
Hardwood (pole)	***2,500	***3,000

Source: Interview with middleman, September 2007

*per can

**per cubic meter

***per pole





4. THE OPPORTUNITY TO SET UP A VILLAGE MARKET SYSTEM FOR NTFP

The Issues and Challenges Related to Marketing of NTFP

Even if Tang Krasang and Kampong Thom markets have become accessible to the villagers because of the construction of the road, taking the villagers' products to the market is still difficult. Sometimes, road conditions are still a problem. Taking the products to town is also costly and time consuming so not all villagers can do this. The other issue related to marketing is that the price of NTFP is not fixed and is calculated according to negotiations between villagers and middlemen. The information about the market price of NTFP is known only to outside middlemen. In addition, there is no fixed place for selling NTFP so the middlemen go to individual houses. With this arrangement, the villagers cannot always consult each other about the price and must rely on the middlemen for price information. Finally, there is no option to process NTFP before selling them to middlemen so there is no value added to the villagers' products.

The Option to Set Up a Village Market System for NTFP

The interest among the Choam Thnanh villagers and the CF is not only to protect NTFP and forest resources but also to set up a market system in the village in order to increase the income of households. People believe that they can reduce the expense of buying equipment and food if there is a market in the village where they can bring their products for selling and also buy the NTFP products that they need.

When there was no road to Tang Krosang, I had to walk and collect fruit (Pring) along the road to Kampong Thmar market. It was very difficult at that time because of bad transportation conditions (sometimes I slipped and lost all my fruits). Since the road was constructed, I have been able to collect the NTFP from home by truck or van, and take them to Tang Krasang easily. If there is a market in the village, my job will be even more convenient.

Khat Youn, 58 years old middlewomen

The forest, particularly NTFP collection, can ideally support the needs of villagers but sometimes income is not enough because the price the middlemen offer for NTFP is very low. The villagers



believe that they do not have to take their products to Tang Krasang or Kampong Thmar markets but instead have set up a depot for NTFP in the village. This is managed by the Community Forestry Management Committee or middlemen within a clearly regulated system. This way, there is no cost (e.g. transportation to outside market) involved in selling their products. All NTFP collected by the villagers will go to this depot and afterwards will be sold to outside middlemen who regularly come to the village to buy NTFP. The villagers and inside middlemen need to be aware of the NTFP market price in Kampong Thmar and Tang Krasang in order to sell the NTFP at fair prices.

Since I got married two years ago, the household income depends on NTFP collection and farming. My family faces some difficulties during the rainy season when I am very busy with my farming work and cannot go to collect NTFP. I have no other occupation than farming work (60 percent) and collecting NTFP (40 percent).

5. CONCLUSIONS AND RECOMMENDATIONS

There are many kinds of NTFP that villagers can extract from the forest. Most of those NTFP are firewood, hardwood, pole trees, vines, mushrooms, fruits (e.g. kuy), potatoes, and medicinal plants. The collection of NTFP is guided by the Forestry Law, the CF sub-decree and the regulations of the CF. NTFP are sold by villagers individually to middlemen from inside and outside the village who collect the products from their homes. The NTFP products from Choam Thanh village are sold by the middlemen to Tang Krasang or Kampong Thmar markets. At present, the villagers do not have control over the price of NTFP and there are limited marketing options because taking the NTFP products to the market directly is costly and time consuming.

If a market for NTFP were available in the village it would be easier for the villagers to sell their products at an appropriate price. They are interested in setting up a marketing system in the village in order to increase their income. This will reduce transportation expenses involved in selling NTFP and it will be easier for the villagers to sell their products at a fair price. The market in the village is expected to enhance the people's livelihoods through selling NTFP.



The following specific recommendations are given:

- Form an association of NTFP collectors (CFMC and members) and create user groups of NTFP collectors (eg mushrooms user group, fruits user group, etc)
- The association of NTFP collectors can set up a place for selling NTFPs in the village and decide on the selling price for NTFPs based on the existing market price
- Local authorities and technical institutions can facilitate marketing of NTFPs by not imposing tax
- Technical institutions should provide technical support in controlling the extraction of NTFP to ensure sustainable forest growth.

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Case Study Five



INFORMATION FLOW INSIDE A COMMUNITY FORESTRY ORGANIZATION



INFORMATION FLOW INSIDE A COMMUNITY FORESTRY ORGANIZATION

Researched and Written by:

Preap Socheat, Research/Training Assistant Volunteer - CBNRM Learning Institute

Vann Sai, Vice Chief of Santuk Environmental Office

Key message: The effectiveness of the information flow is enhanced by a simple but well-designed information sharing system.

1. INTRODUCTION

Information is an important element in a participatory process. In the Community Forestry (CF) management process, it is important that stakeholders have access to information in order to enhance their participation. Appropriate actions are achieved when stakeholders are able to acquire even the most basic information on CF in a simple but well-designed system for sharing information. This information sharing system is usually developed in accordance with the context and situation of the community and as such yields appropriate and effective information dissemination. Several CF organizations in Cambodia have set up mechanisms to transfer information from the CF Management Committee (CFMC) to members and other stakeholders to facilitate CF management. In general, the methods to extend information in the community are simple and customary but attract the interest of the CF beneficiary groups, particularly the CF members.

In Choam Thnanh village, Tipou commune, Santuk district, Kampong Thom province, information like updates on village development or non-formal education are usually shared during meetings. However, the schedules of these meetings are not regular. Furthermore, the objectives of dissemination are not clear. People mostly gather during the traditional ceremonies such as New Year, Pchum Ben, Moon ceremony and festival days but these occasions are not always used to share news.

After the re-election of the CFMC in 2005, the elected leaders thought about possible ways to share information on CF in Choam Thnanh village. All information and updates on the CF were



shared during at least three regular events during festival days such as New Year, monthly CFMC meetings and quarterly CF member meetings. These mechanisms became part of an information sharing and dissemination system in the community.

Participation of CF members has improved since the establishment of this information system. CF members now participate in activities such as boundary demarcation, signboard posting, fire break construction, patrolling, painting mother trees, and other meetings. Villagers have become more aware of the methods for forest harvesting and against illegal logging in CF area. However, some factors have impeded the effectiveness of the information sharing system such as illiteracy and limitations in information dissemination techniques.

This case study shows that traditional means of information sharing such as village meetings, CFMC meetings, CF meetings, and dissemination activities during festival days are effective means for information exchange. It also shows the importance of face-to-face interactions and individual transfer of information. These points are crucial insights to inform the ongoing implementation of CF in this community and other places.

2. GENERAL INFORMATION

Tipou is one of the nine communes in Santuk district. There are 11 villages in this commune namely Somroung, Tipou, Nimit, Chhouk Romdoul, Thmey, Tapreach, Phlong, Trapeang Trom, Kbal Bey, and Choam Thnanh village (Chheang Kuyhy, 2004). The CF in Choam Thnanh named Prey Cheung Phoum CF was established in 2005 covering an area of 143.46 hectares. The CF has 208 members representing 48 households (Application for Prey Cheung Phoum CF establishment 2005). This village shares borders with Chhouk Romdoul village in the east, Phlong village in the south, Somroung village in the west and the villages of Bous Chombok and Svay in the north.

In the past, the forests in Prey Cheung Phoum area, Choam Thnanh village, Tipou commune, Santuk district, Kampong Thom province are thick and huge with many valuable trees such as Korkos, Kranhoung, Kreul, Srol (pine trees), Tatrav, Chromas, etc, together with abundant wildlife and non timber forest products (NTFP). From 1979-1990, anarchic logging and hunting destroyed forest and wildlife in this area. By 1992, the villagers initiated the protection of forest



in this area. This initiative was not very successful since there was no committee and structure for management. In 2000, the villagers demanded assistance from technical institutions in forest protection and community organizing. In 2001, the local Forestry Administration supported by the NRM Component of the GTZ-supported Rural Development Program (RDP) facilitated the organization of the NRM community in Choam Thnanh. Consequently, the Prey Cheung Poum CF became a protected forest community (CF management plan 2003). After the CF sub-decree was approved and the CF guidelines were released in 2006, the CFMC prepared an application for CF establishment and submitted it to the local Forestry Administration (FA) for their CF agreement

The baseline survey of the monitoring initiative (CBNRM Learning Institute and GTZ 2006) shows that the primary occupations of most of the villagers in Cham Thnanh are farming and animal raising (94 percent), and NTFP collection (4 percent) while a few are merchants (2 percent). Table 1 shows the different annual farming activities. It shows that villagers are usually busy the whole year with farming activities alone. They spend approximately 15 to 30 days for each activity. In between farming, they still go to the forest to collect NTFP.

About 62 percent of the village population is illiterate, 30 percent did not complete primary school, 4 percent went to secondary school and the other 4 percent were educated informally eg in the pagoda. They were not able to go to school because of the instability caused by the civil war. A few of the educated adults studied at the pagoda or undertook non-formal education. Therefore, information is often shared orally or by word of mouth without the benefit of a written and formal record. General information from outside the village is usually taken from radio and television. Information about projects and development work comes from the local FA, GTZ and Provincial Department of Environment (PDoE).





Table 1: Seasonal Calendar for Farming and Plantation Activities

Activities	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Clear forest for plantation	■											
Burn the plantation				■								
Planting					■							
Farming work					■							
Guard plantation from animals										■		
Harvesting plantation crop											■	
Rice harvesting												■

Source: Interviews with villagers, 9th April, 2007

3. INFORMATION SHARING SYSTEM IN RESPECT OF CF

Figure 1 shows the information sharing system in Prey Cheung Phoum CF. There are three main means of sharing information about the CF, namely CFMC meetings, meetings of CF members and CFMC, and information dissemination activities during festival days.

Meetings of CFMC

CFMC meetings are conducted once a month and if there is anything urgent it becomes twice or three times a month. These meetings do not have any specific objective, agenda or focus. However, the discussions usually revolve around forest protection and finding practical and workable strategies to improve forest management. The CFMC meeting is sometimes used to share the information that committee members get from training sessions or workshops. These meetings are mostly held at night when many people are at home. This reflects the strong commitment of CFMC members in sharing information among each other and increasing everyone's awareness about forest management.

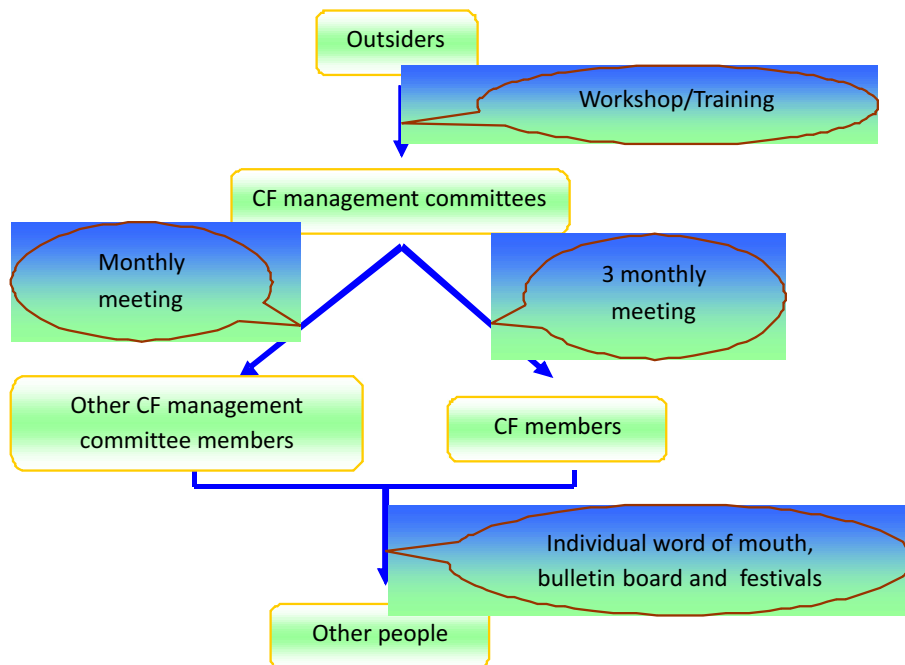


Meetings between CFMC and CF members

The meetings between CFMC and CF members are generally held once every three months and one representative from each household is invited to join. Confirmation about the schedules of meetings is usually relayed through word of mouth. Sometimes, the CFMC confirms the meetings two to three days in advance of the meeting. On some occasions, those who have confirmed their attendance do not make it to the meeting because they are busy, or sometimes they even forget the meeting date. In addition, some members do not remember or understand what they hear in the meeting even though they have attended. For instance, the CF regulations may have been discussed in meetings but have been understood by only a few members. There is, however, some information that is understood well like boundary demarcation or permission to harvest the timber and NTFP.

Even if the CFMC confirms the schedule of the meeting with CF members, the information about the agenda is not usually communicated to them. Usually, the CFMC does not set what will be taken up in the meeting in advance.

Figure: Information Sharing System in Prey Cheung Phoum CF



Source: Village interviews, 9th -10th April, 2007



Information sharing during festival days

The traditional festival days present opportunities to share information among villagers since most gather in the village rest hall to celebrate and relax. The festivals celebrated in Choam Thnanh include the Khmer New Year, Moon Festival, Pchum Ben (the celebration for the spirits of ancestors), and DALEAN (DALEAN is one kind of the traditional local community that they gather together to celebrates the rice harvesting ceremony)

Information sharing during festival days is a good way of communicating with CF members and villagers since many people meet during these days. However, people will not always be interested in listening so information sharing at these times needs to be made more appealing for them.

Individual transfer of information

This is a method to spread information widely from one to another or even to groups of people. The invitation to meetings and information about other CF activities are shared through this mechanism. CFMC, CF members and villagers spread information by word of mouth and it is easy for people to communicate what they know to others.

4. INSIGHTS ON THE INFORMATION SHARING SYSTEM

The main methods for sharing information about CF in meetings and festival events are by word of mouth and face-to-face interactions among CF leaders and members. This is the simplest and most effective means to spread information widely and to get invitations out to most people. People easily share what they know with their neighbors or family members.

The mechanisms for sharing information should be linked to the traditions and practices of villagers because information should build on already existing means of information exchange. For example, the festival days offer good opportunities for people to talk about forest management because they are relaxed and their minds are open to discussions. In this way, CF information is added to an already existing means of information exchange, and thus perceived to be more applicable and practical for the CFMC and CF members.



It is also important to note that information on CF should not only be shared among the CFMC and CF members. There should be also be a link between the CFMC and village management Committee (VMC) particularly the village chief who can help in sharing information about the CF to other villagers and outsiders.

Literacy is the biggest challenge in sharing information. Some CFMC and CF members are illiterate so it is difficult for them to understand complicated written documents. For example, the CF regulations cannot be disseminated only by reading the contents to the CF members: explanation is critical. So, since CFMC members who are communicating information about the regulations may have difficulty themselves in understanding them, sharing this becomes even more challenging. They usually read the regulations without explaining the meaning of them. This sharing method is appropriate but it cannot help audiences to remember all the pertinent information.

“Even if I wrote a letter of invitation to villagers they still would not know about it because they cannot read.”

Mr. Chhun Meoun, Village Chief and CF Adviser

Another challenge is providing timely and accurate information. Most villagers farm in fields that are far away from the village so providing timely information is critical. If an appointment for a meeting is made many days in advance, the CF members sometimes forget. Or if an appointment is made very close to the meeting date, the members do not have enough time to prepare. More importantly, providing accurate and clear information on the schedule and objectives of the meeting can enhance participation, particularly if the importance of the meeting is explained to them. Specific times and clear objectives and agenda can attract people and enable them to prepare to discuss and share their ideas in the meetings.

Spreading information by word of mouth can be confusing. Sometimes, villagers are too busy to share the information or some are shy and not confident enough to repeat what they have heard or understood during meetings. In addition, different data may be shared depending on the interpretation of the receiver of the information. In some cases, information may be difficult to communicate especially if people are busy working in the plantations far away from their village.



“When there is a meeting in the village, we always ask people to inform their neighbors or family members who are working in the fields but the news is often late in reaching them so they cannot attend.”

Orm Im, CF Chief

5. CONCLUSIONS AND RECOMMENDATIONS

Establishing a clear system of information sharing, formal or informal, contributes to more active participation in CF protection and development activities. This case study shows that different methods should be used for sharing information depending on the nature of the information and the needs of its givers and receivers. For example, complicated written documents are more difficult to share and explain because both the givers (CFMC) and receivers (CF members) are illiterate. Finding better means to explain some information is needed.

On the other hand, the system of CF information sharing in Choam Thnanh village is a good example in underlining the need to have a clear structure and network for sending information to all the CF members. People can easily capture and remember information they have heard in meetings, or have seen put into practice, or have witnessed during everyday activities - such as signboards of CF and NTFP collecting procedures. People cannot understand information that is presented to them only as theory, or is written only as CF regulations or CFMC by-laws.

In addition, CF meetings should have clear objectives, an agenda and there should be appropriate confirmation to attendees to enhance participation. The meeting leaders need to clearly understand the information and issues to be discussed.

Some recommendations to improve the effectiveness of an information sharing system on CF management are as follows:

- Sharing information should not only be in written textual form. Information should be made more visual by including pictures and images to make people, particularly those who are



illiterate, understand.

- Information should be provided in a timely and accurate manner. For example, the objectives of the meetings should be relayed beforehand to attract the interest of participants
- The minutes of meetings should be taken every time (if such skills are available) in order to avoid overlaps in discussions
- The CFMC needs to be aware of their roles in sharing information about CF management principles, regulations, and by-laws
- Wider information sharing should be encouraged, particularly among people in remote areas (eg use of bicycles or motorbikes to get information more easily to villagers who are in plantations)
- Local authorities should assist the CFMC in sharing information

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Chapter Five



LESSONS LEARNED: DISCUSSION ABOUT THE COMMUNITY FORESTRY MONITORING PROCESS AND ITS OUTCOMES



LESSONS LEARNED: DISCUSSION ABOUT THE COMMUNITY FORESTRY MONITORING PROCESS AND ITS OUTCOMES

Researched and Written by:

Srey Marona, Program Coordinator - CBNRM Learning Institute

Diepart Jean-Christophe, NRM Advisor - GTZ/DED Rural Development Program Kampot - Kampong Thom

The Monitoring and Evaluation initiative designed and implemented with three Community Forestry organizations in Kampong Thom has identified a diversity of outputs. New concepts and innovative ways to tackle Community Forestry development have been proposed. Time-series household surveys focused on forest management have provided some insights into the dynamic of Community Forestry management. Finally, five case studies have detailed stories about, and challenges of, Community Forestry management.

This fifth chapter takes stock of lessons learned about this monitoring and evaluation initiative. It synthesizes and analyzes (1) the key lessons learned from the development of a participatory monitoring system for Community Forestry, and (2) the lessons and challenges gleaned from stories of three community forest organizations. It also (3) explains some on-going activities for scaling out this initiative to other Community Forestry sites.

LESSON LEARNED FROM THE PARTICIPATORY MONITORING

The Community Research and Monitoring Project has aimed to develop a Monitoring and Evaluation system with three Community Forestry organizations in Kampong Thom province. This initiative was among the first of its kind in Cambodia. The implementation of the project over a 21 month period has brought out factors that may govern any further development of this initiative.

High demand from CF Management Committees for support in management: Overall, the CF management committees warmly welcomed the initiative. They considered the project an opportunity to increase their understanding about ways to improve CF management. Besides key activities such as elaboration of CF regulations or CF management plans, there is also a



strong demand from the Community Forestry side for support in management activities. The monitoring framework and monitoring guidebook partly meet this demand by providing the CF management committees with a management tool that comprehensively addresses the different dimensions of CF development.

Need for good facilitation and constant capacity development: Nevertheless, the experiences showed that M&E concepts are rather new and difficult to grasp for the CF management committees. Specific terminology (Principles, Criteria, Indicators, etc.) creates some confusion and there is a need for constant support during all phases of the process. The role and involvement of external facilitators here is crucial to facilitate both the elaboration and the use of the M&E framework. In this respect, the establishment of an M&E framework is an efficient tool in capacity development for the CF management committees, as it comprehensively covers all the aspects of CF management. It is also a flexible tool as it can easily be adapted to each specific Community Forestry context.

Monitoring as a transversal activity of the CF development: It is recommended that CF practitioners start developing the M&E system at the beginning of Community Forestry development. Some data needed for the baseline survey can be collected at an early stage of development through the participatory assessment of natural resources. As the Community Forestry activities evolve towards the formation of the management committees, the demarcation of CF boundaries and the formulation of rules and regulations, the monitoring framework can be continually improved. So, when the CF management plan that comprehensively addresses forest management is designed and approved, monitoring and evaluation can be directly implemented on solid basis. In this perspective, it is recommended that efforts be made to set clear and quantifiable indicators so that people can actually measure the change in the development of their community forest and community-based organizations.

Multi-stakeholder involvement: As Community Forestry in the Cambodian context rests on co-management principles, such a monitoring framework is an effective tool for communication between all the stakeholders involved in CF development. Indeed, forestry co-management is a partnership in which the Forestry Administration, the community of local resource users and external stakeholders share the responsibility for decision making over the management of forest resources. So, it is of crucial importance that these stakeholders regularly exchange information and evaluate, on common ground, the development of the Community Forestry



organization. The M&E framework can be this common platform through which the dialogue between the stakeholders is facilitated.

Sustainability: Finally, put in a long term perspective, the sustainability of such an initiative depends greatly on the positive involvement of local Forestry Administration staff in pursuing the use of the M&E framework as a tool for improved CF management and improved information flow between CF stakeholders. By keenly supporting this initiative, the CBNRM Learning Institute and the GTZ-RDP have tried to reach these main objectives.

LESSONS LEARNT FROM THE CASE STUDIES

The case studies told us stories about Community Forestry in Kampong Thom. The context of each and every CF is singular but the case study topics are representative of some challenges toward sustainable Community Forestry management.

CF as part of a wider land use mosaic: In a perspective of land management, it is important to recognize that forested land and forest resources are integrated into a large mosaic of land uses. The agro-ecological context in which the Community Forestry organizations are evolving is characterized by the co-existence of forest with agricultural land, perennial crop plantation, grazing land and quarry zones. The rapid and extensive degradation of natural forest cover for the exploitation of minerals (laterite or sandstone) or its substitution by perennial crop plantation such as eucalyptus (Myrtaceae); acacia (Leguminosae-Mimosoideae); or cashew (Anacardium) underlines the magnitude of land management challenges presented (see case study by Hou Vong Vichheka, Meam Sito, and Tol Sokchea in this book). And in many instances, these challenges go much beyond the control of a sole Community Forestry organization.

Need to implement different NRM approaches at different scales: In short, different land management issues are addressed at different scales and this requires the implementation of different natural resource management approaches. At a village level, local resources can be managed under a Community Forestry scheme (CF). On a smaller scale (commune), natural resource management systems must be implemented through the integration of forest in the agricultural and non-agricultural landscape. At this level, a land use planning approach Participatory Land Use Planning or Commune Land Use Planing (PLUP-CLUP) seems more



appropriate and meaningful. In an even wider context (district-province), forest management would ideally be conducted along watershed management principles aiming to promote a diversity of land use (high territorial added-value) and, equally important, securing water resources in quantity and quality. Consequently, social organizations that support these approaches must be integrated (see case study by Hou Vong Vichheka, Meam Sito, and Tol Sokchea).

CF as an activity integrated into rural livelihoods: Another key element that appears recurrently in the case studies is that Community Forestry organizations are not homogenous organizations but highly differentiated. The households who are members of the Community Forestry organization shared different interests and are articulated to forest activities through different strategies or tactics. The temporal dimension of these strategies is important. Some households look to forest activities in the dry season to find opportunities for the under-employed family labor. Others, with less agricultural land, are more dependent on forest resources for both self consumption and sale. Consequently, they exploit the forest throughout the year. Other households go to the forest just occasionally to harvest specific non-timber forest products at certain specific times. Following these time-labor occupation strategies, the share of forest resources in the income portfolio of the households varies greatly. Thus, in order that the development of the Community Forestry stays efficient in terms of the creation of added value from the forest, and that it remains both fair in the repartition of these added-values and sustainable in term of environmental management, forest activities must be developed with due consideration to the role of forestry in the overall production systems of forest users (temporal and spatial differentiation).

CF and poverty reduction: It has been found that in the communities living close to the forest, the share of forest product values in the total income of the households is more important for the poorest. Without generalizing these results to the whole province, it can be said that forest management in these areas has a role to play in an overall poverty reduction strategy (see case study by Nop Chhaya and To Sothea). For instance, the reinforcement of a marketing system for non-timber forest products managed by the Community Forestry organization was seen as an opportunity for the development of the community as a whole (see case study by Meas Sothun Vathanak and Im Maredi). But given that CF areas, as any other rural communities, are socially stratified, it is also of prime importance that the benefits offered by such a system are not seized exclusively by local elites, who are the gatekeepers between the community and external people



(middlemen for instance).

Institutional integration of CF organizations: Another challenge identified is related to the double integration of Community Forestry organizations with other institutions. On the one hand, Community Forestry organizations are linked with the Forestry Administration (cantonment-division and triage) for the co-management of forest resources. This vertical integration gives Community Forestry organizations certain prerogatives (rights and duties) that make them accountable in respect of the Forestry Administration. On the other hand, Community Forestry is a community based organization (CBO) that is also accountable to the elected commune council responsible for the protection and management of natural resources in their territory. Under the guidance of the commune council, Community Forestry can, as others CBOs, be an actor in implementing decentralization (see case study by Tol Sokchea and Meam Sito). This horizontal integration is crucial for the future of rural areas. Legal documents supporting this dual integration exist (although they overlap slightly), but there is a need for a sound multi-stakeholder policy dialogue at the commune level. Associated with other institutions, the Forestry Administration has a role to play in this dialogue. But importantly, this institutional setting is new and requires considerable effort from all partners to raise awareness and develop capability among Community Forestry members to promote a decentralized natural resource management that goes beyond the words and is anchored in reality and facts.

Information sharing system: Another challenge recognized is linked to literacy barriers. The case study by Preap Socheat and Vann Sai has emphasized that CF regulations cannot be disseminated only by reading its contents to the CF members; explanation is critical. Appointments for meetings must be clearly announced in both written form and by word of mouth. And importantly, the case studies have shown that information dissemination related to the daily management of Community Forestry should be integrated into the overall information dissemination system about village activities.

SCALING OUT THE POSITIVE IMPACTS

Reproducing the initiative in Siem Reap province: Based on the lessons and experiences learnt from the M&E system in Kampong Thom, the CBNRM Learning Institute has been involved as lead facilitator in the development of a similar initiative with the Community Forestry Development in Northwestern Cambodia project in Siem Reap province, supported by the Food



and Agriculture Organisation of the United Nations (FAO). For this project, the objectives in developing an M&E system for Community Forestry are multifold. A monitoring framework (PCI) is useful to monitor and ensure sustainable CF management but can also be used as a way of reflection about the implementation of CF organization. A detailed monitoring framework can also help in formulating the CF management plans. The CBNRM learning Institute, FAO and FA recognize that these important lessons and experiences continue to support the capacity development of local partners and the development of a participatory action research agenda. A joint planning process has been designed between the FAO, FA and CNRNM Learning Institute in order to develop a monitoring framework using the PCI methodology.

Participatory approach towards NRM can increase social justice: The initiative has demonstrated that the participatory approach to natural resource management is an appropriate way for communities to manage their resources in a sustainable way. This approach can effectively integrate marginalized groups into the community, allowing them to participate in the process of managing their resources, to improve the local ecosystem and community organization. Ultimately, this can lead to increased equity within the rural community. Disadvantaged groups must continue to be encouraged and supported to engage in a higher level of participation.

Presentation of the initiative to NGOs, national and international workshops: Many lessons learned and experiences derive from field research on CF/CPA Monitoring and Evaluation system development and these are shared with NGOs, other organizations interested in helping local people in Community Forestry development. The initiative also plans series presentations to the CF Network and National Community Forestry Program during their three-monthly meetings. It is hoped that the experiences and lesson learnt about the implementation of new initiatives will contribute to developing M&E systems, which will be adapted for wider use in CF development.

RECOMMENDATIONS

In order to improve the effectiveness of Community Forestry management/development, some practical recommendations can be put forward. All of these recommendations mention the need for the continuation of the initiative as there are still lessons to be learned.



Capacity development and awareness raising: The Principle-Criteria-Indicator framework for sustainable Community Forestry management is a new concept in Cambodia. Therefore, capacity development is needed in respect of monitoring and evaluation for all CF stakeholders such as the government staff (at different levels of FA and Department of Nature Conservation and Protection (DNCP), CF management committees, CF members and the commune council. In this respect, it is preferable for capacity development measures and activities to be tailored for a diverse panel of stakeholders so that the same message is understood in the same way at the different levels. Cross-level capacity development activities can also improve coordination mechanisms between those stakeholders.

Strengthening local institution voices: In order to stimulate community participation and ownership in Community Forestry management, multiple and participatory approaches are needed: of particular importance is the need to strengthen local institutions (prioritized capacity development) and to empower them to play a role in liaising with provincial and national institutions. Through ad hoc coordination mechanisms, lessons and experiences from pilot projects can be scaled out to the National Community Forestry Program (NCFP) and used wider in the country.

Monitoring system as a communication tool between stakeholders: The local FA, field facilitators and local community need to monitor and review Community Forestry programs/management at local level. Once the PCI framework is in place, it is essential to carry out systematic and evidence-based monitoring. The results of monitoring can inform the local community, local FA and other stakeholders about the progression and the actual level of performance of the CF. The monitoring system can ideally serve as a communication tool between CF stakeholders because it provides accurate, relevant and time-series information on the CF management dynamic.

Need for more research and capitalization of experiences: In Cambodia, little is known about the Principle-Criteria-Indicator framework for Sustainable Community Forestry Management. Thus, more research and experience are needed in order to inform and support the creation of more relevant NRM policy and legal instruments for CF monitoring. In particular, research and capitalization of experiences are needed to better understand how an M&E framework can contribute to the improvement of CF management committee performance. In conclusion, it is helped that improved CF management at the CF management committee level



will lead to the improvement in CF members' livelihoods and forest conditions. In this respect, pinpointing what is “best practice” in the context of Cambodia could be helpful. It is important that research and documentation/capitalization of experiences are conducted with multi-stakeholders including government, local FA and community members, and presented at different forums such as network meetings held by the Community Protected Areas Network (CPA), the National Community Forest Program (NCFP), the CF and NRM representatives at provincial level. It is recommended that NCFP establish a specific working group to support this work.

Prioritize a “learning by doing” approach: The lessons and experiences from the CFRM project in Kampong Thom demonstrate that this type of initiative requires a “learning by doing” approach; it is of paramount importance that the local community and government staff have a chance to apply the concept in useful ways. A pragmatic approach would allow the facilitators work in their community/village on various CF support activities on regular basis while implementing step by step the monitoring process. In the Cambodian context, learning by doing is an appropriate method because most stakeholder involved in CF development are already experienced in field work (Participatory Resource Assessment), making them receptive to and familiar with practical and other participatory approaches.

Build on local knowledge: A process in which people or the local community formulate their own monitoring framework as a basis for tailor-made CF management requires that existing skills, experiences and knowledge of the local community are built on. In this way, the local community or people can discuss and adapt the knowledge to identify, for each principle of the framework, possible criteria and quantified indicators for good forest management. After that, new concepts and skills can be introduced, and existing knowledge can also be enhanced.





APPENDICES

APPENDIX 1: COMPLETE PCI FRAMEWORKS

PCI Framework
 Prey Kbal Bey Community Forestry
 Kbal Bey Village, Tipou Commune, Santuk District, Kampong Thom Province

1 st Principle: Forest health is maintained	
Criteria	Indicator
1-1- Clear zoning of Community Forestry area	1-1-1- Signs and poles along CF boundary are set 1-1-2- CF areas are divided into different management blocks (differentiation between what can be used, and what is to be conserved) 1-1-3- Methods to prevent CF land encroachment are available for local community
1-2- Non-timber forest products (NTFPs) and timber products are well managed	1-2-1- NTFPs harvesting plan is prepared 1-2-2- Appropriate methods in collecting NTFPs are applied 1-2-3- There are NTFPs for traditional use
1-3- Biodiversity improvement	1-3-1- Reforestations/plant more trees 1-3-2- Wildlife species are conserved and increased 1-3-3- Forest is enlarged 1-3-4- Mother trees are saved
1-4- Ecology is managed	1-4-1- CF members are aware of the causes of, and methods to prevent, forest fires 1-4-2- Unique forest zone for water resource is protected 1-4-3- Soil quality is improved
2 nd Principle: People's wellbeing is assured	
Criteria	Indicator
2-1- Community members benefit equitably from the forest	2-1-1- All CF members participate in decision making for benefit sharing 2-1-2- Benefits must be shared according to each member's involvement
2-2- Rights of CF members to access the forest are assured	2-2-1- CF regulations incorporate the right of access to the forest of CF members and outsiders



2-3- Forest plays an important role in maintaining people's health	2-3-1- Many kinds of NTFPs are medicinal plants for people 2-1-2- NTFPs provide nutrient foods for people
2-4- Forest supports people's subsistence	2-4-1- Forest provides equipment for people 2-4-2- Forest provides construction wood 2-4-3- Forest provides firewood for people 2-4-4- NTFPs contribute to increasing people's incomes

3 rd Principle: Community wellbeing is assured	
Criteria	Indicator
3-1- Community based organization stands for the whole community	3-1-1- The CF committee is transparently elected and women are able to be candidates 3-1-2- CF regulations are approved by the local community and other stakeholders
3-2- Right to access to the forest is understood and is the responsibility of all CF members	3-2-1- Procedures for collecting and using NTFPs are respected and followed by all CF members 3-2-2- The right to use the forest must be in accordance with the CF regulations
3-3- The CF committee is effective in managing the CF	3-3-1- The CF committee is able to write reports and manage documents 3-3-2- The CF committee is able to deal with conflicts 3-3-3- The CF committee is able to arrange activities for CF members
3-4- Operating mechanisms and institutions are crucial in conflict resolution	3-4-1- Conflict resolution methods are available in the local community 3-4-2- Solutions are agreed by all parties

4 th Principle: External environment is supportive	
Criteria	Indicator
4-1- Non-formal education and extension support sustainable forest management	4-1-1- The system of disseminating information about the benefits of the forest is provided for local people 4-1-2- Training on forest management is given regularly



4-2- CF members cooperate with other stakeholders to manage their forest resource	4-2-1- NGOs, local authorities, and technical institutions assist in resolving conflicts in the community 4-2-2- Government and other stakeholders assist in CF management
4-3- Good market system for NTFPs and timber products is in place	4-3-1- Government and other stakeholders assist in finding markets for forest products 4-3-2- Government and other stakeholders provide techniques in CF products processing for the local community
4-4- CF management is in line with the priority goals of government in forest development and management	4-4-1- CF representatives are invited to discuss the formation of legislation related to CF 4-4-2- CF regulation is recognized by government

PCI Framework
Prey Cheung Phoum Community Forestry
Choam Thnanh Village, Typo Commune, Sontuk District, Kampong Thom Province

1 st Principle: Forest health is maintained	
Criteria	Indicator
1-1- Clear zoning of Community Forestry area	1-1-1- Signs and poles along CF boundary are set 1-1-2- CF areas are divided into different management blocks (differentiation between what can be used, and what is to be conserved) 1-1-3- Methods to prevent CF land encroachment are available for local community
1-2- Non-timber forest products (NTFPs) and timber products are well managed	1-2-1- NTFPs and wood harvesting plan is prepared 1-2-2- Appropriate methods in collecting NTFPs are available 1-2-3- There are NTFPs for traditional use
1-3- Biodiversity improvement	1-3-1- Reforestations/plant more trees 1-3-2- Wildlife species are conserved and increased 1-3-3- Forest is increased 1-3-4- Mother trees are saved 1-3-5- Silviculture techniques are used to ensure the growth of trees



1-4- Ecology is managed	1-4-1- CF members are aware of the causes of, and methods to prevent, forest fires 1-4-2- Soil quality is improved
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2nd Principle: People's wellbeing is assured

Criteria	Indicator
2-1- Community members benefit equitably from the forest	2-1-1- All CF members can use NTFPs for their needs 2-1-2- All CF members participate in decision making for forest benefit sharing 2-1-3- Benefits must be shared according to each member's involvement 2-1-4- Benefit sharing must take poor and disabled people into account
2-2- Rights of CF members to access the forest are assured	2-2-1- CF regulations express the right to access to the forest of CF members and outsiders 2-2-2- All CF members are continuously acquiring NTFPs for their daily needs
2-3- Forest plays an important role in maintaining people's health	2-3-1- Many kinds of NTFPs are medicinal plants for people 2-3-2- NTFPs provide nutrient foods for people
2-4- Forest supports people's subsistence	2-4-1- Forest provides equipment for people 2-4-2- Forest provides construction wood 2-4-3- Forest provides fire wood for people 2-4-4- NTFPs contribute to an increase in people's incomes

3rd Principle: Community wellbeing is assured

Criteria	Indicator
3-1- Community based organization stands for the whole community	3-1-1- CF committee is transparently elected and women are able to be candidates 3-1-2- CF regulations are approved and agreed by the local community and other stakeholders 3-1-3- CF members participate in CF activities voluntarily



<p>3-2- Right to access to the forest is understood and is the responsibility of all CF members</p>	<p>3-2-1- Procedures for collecting and using NTFPs are respected and followed by all CF members 3-2-2- Right to use the forest is in accordance with the regulations 3-2-3- All CF members respond to their roles</p>
<p>3-3- CF committee is strong in managing the CF work</p>	<p>3-3-1- CF committee is able to extend information to CF members 3-3-2- CF committee is able to write reports and manage documents 3-3-3- CF committee is able to arrange activities for CF members 3-3-4- CF committee is able to build relationships with other stakeholders</p>
<p>3-4- Operating procedures and institutions are crucial in conflict resolutions</p>	<p>3-4-1- Conflict resolution procedures are available for local community 3-4-2- Local community is able to resolve conflicts</p>

<p>4th Principle: External environment is supportive</p>	
<p>Criteria</p>	<p>Indicator</p>
<p>4-1- Non-formal dissemination and training is supportive towards sustainable forest management</p>	<p>4-1-1- The system of disseminating information about the benefits of the forest is provided for local people 4-1-2- Training on forest management is conducted regularly 4-1-3- Local community can access information related to CF</p>
<p>4-2- CF members cooperate with other stakeholders to manage their forest resource</p>	<p>4-2-1- Related institutions provide technical support in CFC election and regulation formation 4-2-2- NGOs, local authorities, and technical institutions assist in resolving conflict in the community</p>
<p>4-3- Good market system for NTFPs and timber products is in place</p>	<p>4-3-1- Government and other stakeholders assist in finding markets for CF products</p>



<p>4-4- CF management is in line with priority goals of government in forest development and management</p>	<p>4-4-1- Local community contributes in implementing forest land management rights 4-4-2- Government provides consultations on CF management 4-4-3- Local community contributes in implementing forest management policies</p>
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PCI Framework
 Prey Tbong Domrey Community Forestry
 Chong Da Village, Tbong Krapeu Commune, Steng Sen District, Kampong Thom Province

1 st Principle: Forest health is maintained	
Criteria	Indicator
1-1- Clear zoning of Community Forestry area	1-1-1- Signs and poles along CF boundary are set 1-1-2- CF areas are divided into different management blocks 1-1-3- Methods to prevent forest land encroachment are available for the local community
1-2- Non-timber forest products (NTFPs) and timber products are well managed	1-2-1- Better methods in collecting NTFPs 1-2-2- NTFPs harvesting plan is prepared
1-3- Biodiversity improvement	1-3-1- Reforestations/plant more trees 1-3-2- Wildlife species are conserved and increased 1-3-3- Forest is increased 1-3-4- Mother trees are saved 1-3-5- Silviculture techniques are used to ensure the growth of trees
1-4- Ecology is managed	1-4-1- CF members are aware of the causes of, and methods to prevent, forest fires 1-4-2- Unique forest zone for water resource is protected 1-4-3- Soil quality is improved



2 nd Principle: People's wellbeing is assured	
Criteria	Indicator
2-1- Community members benefit equitably from the forest	2-1-1- All CF members participate in decision making in respect of forest benefit sharing 2-1-2- Benefits must be shared according to each member's involvement
2-2- Rights of CF members to access the forest are assured	2-2-1- CF regulations express the right of access to the forest of CF members and outsiders 2-2-2- All CF members are continuously acquiring NTFPs for their daily needs
2-3- Forest plays an important role in maintaining people's health	2-3-1- Many kinds of NTFPs are medicinal plants for people 2-1-2- NTFPs provide nutrient foods for people
2-4- Forest supports people's subsistence	2-4-1- Forest provides equipment for people 2-4-2- Forest provides construction wood 2-4-3- Forest provides fire wood for people 2-4-4- NTFPs contribute towards an increase in people's incomes

3 rd Principle: Community wellbeing is assured	
Criteria	Indicator
3-1- Community based organization stands for the whole community	3-1-1- CF committee is transparently elected and women are able to be candidates 3-1-2- CF regulation is approved and agreed by local community and other stakeholders 3-1-3- CF members participate in CF activities voluntarily 3-1-4- Meetings are conducted between CF members and committee to discuss the CF performance
3-2- Right of access to the forest is understood and is the responsibility of all CF members	3-2-1- Procedures for collecting and using NTFPs are respected and adhered to by all CF members 3-2-2- Right to use the forest must be determined by CF regulations



<p>3-3- CF committee is strong in managing the CF work</p>	<p>3-3-1- Extension system is formed for local dissemination 3-3-2- CF committee is able to write reports and manage documents 3-3-3- Patrolling team and system are set up and in operation 3-3-4- Meetings between CF committees and members are regularly conducted</p>
<p>3-4- Operating procedures and institutions are crucial in conflict resolution</p>	<p>3-4-1- The conflict resolution procedure is available for the local community 3-4-2- The local community is able to deal with conflicts 3-4-3- Solutions are agreed by all related parties 3-4-4- Conflicts in the community are properly managed</p>

<p>4th Principle: External environment is supportive</p>	
<p>Criteria</p>	<p>Indicator</p>
<p>4-1- Non-formal dissemination and training is supportive to sustainable forest management</p>	<p>4-1-1- The system of dissemination about the benefits of forest is provided for local people 4-1-2- Training on forest management is regularly conducted 4-1-3- Local community can access information related to CF</p>
<p>4-2- CF members cooperate with other stakeholders to manage their forest resource</p>	<p>4-2-1- NGOs, local authorities and technical institutions assist in resolving conflict in the community 4-2-1- Neighboring villagers cooperate in protecting the CF</p>
<p>4-3- Good market system for NTFPs and timber products is in place</p>	<p>4-3-1- Government and other stakeholders assist in finding markets for CF products 4-3-2- Government and other stakeholders provide the local community with techniques in CF product processing</p>
<p>4-4- CF management is in line with priority goals of government in forest development and management</p>	<p>4-4-1- CF activity is inserted into the commune development plan 4-4-2- Local authorities and technical institutions encourage the CF members and committee in their CF management activities 4-4-3- Municipal authorities support the CF management</p>



APPENDIX 2: QUESTIONNAIRES

Questionnaires

Date :
 Interviewer Name :
 Name of CF :

General Information of Interviewee

1. Name: Name of spouse:
2. Age: Years old, Sex: Male Female
 Number of family members: people
3. Main occupation: Secondary occupation :
 Family condition: Rich Medium Poor
4. How much paddy land do you own? ha
 How many kinds of rice do you grow? Describe?
- 5 How much (Chamkar) plantation land do you own?ha
 How many kinds of crop do you grow? Describe?
6. Study: Illiterate Primary school Secondary High school
 Other,
7. Are you a CF member or not? Yes No
 If No, why?
8. What do you know about this CF?

1st Principle: Forest Health is maintained:

1.1. Clear Zoning of CF management:

1. Do you know the CF border? Yes No
 If yes, how do you know? / If no, why?

 In your opinion, what could help you to get to know the CF border?
2. Is the CF divided into different management blocks? Yes No
 If yes, what are these blocks?
3. Is there land encroachment in the CF? Yes No
 If yes, what do you think you should do?



Type of NTFPs	Mode to collect	Who collect	Purpose of collection	Sale Price	Season of collection	Frequency	Amount	Trend			Reason for the trend
								↗	→	↘	

3. If the NTFPs have decreased, what should you do?

.....

1.2. Biodiversity improvement:

- Do you plant trees in the CF? Yes No
If yes, what species, how many times, trees? / If no, why?
- After CF was born, have you ever seen wild animals or their foot prints? Yes No
If yes, what kinds?
- What kinds of animals do the people here intend to protect?
- Are there any protected mother trees in the CF? Yes No
If yes, what kinds? / If no, why?
- Are there any silviculture techniques used in the CF? Yes No
.....
.....

1.3. Ecology is managed:

- Do you know the method to stop the forest fire? Yes No
If yes, what are they? / If no, why?
- From your own experience, has the soil fertility in the CF areas changed or not?
 Yes No
If yes, how has it changed? / If no, why?
- Are there water sources in the CF? Yes No
If yes, what are they? / If no, why?

2nd Principle: People's wellbeing is assured:

2.1. Community members benefit equitably from the forest

- Have you ever attended a meeting to share benefits from the forest? Yes No
If yes, who else attended?
- How was the sharing done?



Why?

2. Have you ever contributed to any other CF activities? Yes No

If yes, what were they? / If no, why?

2.2. Rights of CF members to access the forest are assured

1. Do you know if there is a CF regulation in your CF? Yes No

2. Do you know if the right of access to the forest is stated in the regulations? Yes No

If yes, what does it say? / If no, why?

2.3. Forest plays an important role in maintaining people’s health (Table 1.2)

2.4. Forest supports people’s livelihoods

1. Where do you let your domestic animals graze?

3rd Principle: Community wellbeing is assured

3.1. CF institution management is formed to represent all community members

1. In what ways were the CF committees formed? Election appointment

Other

2. Do you agree with the result of this election? Yes No

Why?

3. Were there any women candidates? Yes No

Why?

4. Have you participated in CF regulation forming and approving? Yes No

Why?

5. Do you know who participated in CF regulation preparation? (CC, FA, DoE, NGOs...)

.....

Do you agree with the CF regulation? Yes No

Why?

6. Have you ever attended a meeting about CF management? Yes No

If yes, how often? / If no, why?

3.2. Right of access to the forest is understood and is the responsibility of all CF members

1. Do you need to ask for permission when collecting NTFPs or wood from the CF?

Yes No

If yes, who do you ask?

What applications do you need to fill out?

If no, why?

3.3. CF committee has substantial capacity to manage and perform the CF work

1. Have the CF committees ever disseminated any information to you? Yes No

If yes, what information? / If no, why?



2. Do you appreciate the CF committees' performance? Yes No
 Why?

3.4. Operating procedures and institutions are vital in conflict resolution

1. Do you know if there is any conflict in the CF? Yes No
 If yes, what are the conflicts?

2. Is there a conflict resolution procedure in the CF? Yes No
 If yes, how were the conflicts resolved? And did the CF committees assist in the resolution?

If no, do you think it should have or not? Why?

.....

4th Principle: External environment is supportive

4.1. Non-formal dissemination and training support for sustainable forest management

1. Have you ever obtained any information relating to CF management? Yes No
 If yes, from whom and about what?

.....

2. Have you ever been trained about CF management? Yes No
 If yes, what training?

Who were trainers?

If no, why?

3. Have you ever asked for any training for your CF? Yes No
 If yes, what did you ask for?

If no, why?

4.2. CF members cooperate with other stakeholders to manage their forest resources

1. Are there any NGOs or institutions that assist with problem solving in the CF? Yes No
 If yes, which institution for what problems?

If no, why?

2. Do people from any other villages assist in protecting the CF? Yes No
 If yes, how do they help?.....

If no, why?

4.3. Markets to sell NTFPs and forest products are accessible:

1. Where do you sell products from the CF (NTFPs and ...)?

Are you happy with the price(?) Yes No
 What do you think about the products?

.....

.....



4.4. CF management is in line with priority goals of government in forest development and management

1. Have you ever attended meetings to make a village development plan? Yes No

If yes, what CF activities were included in that plan?

.....

If no, why?

2. Have you ever been given incentives in your CF work? Yes No

If yes, what were the incentives?

.....

If no, why?

3. Have you ever received technical support in your CF practice? Yes No

If yes, from which institutions for what techniques?

.....

If no, why?

