

Developing a Local-Level Monitoring-Evaluation System for Sustainable Community Forestry Management

An experience from Kampong Thom, Cambodia

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Introduction

At the beginning of 2000, the Royal Government of Cambodia embarked on important reforms of its forestry sector. 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 official 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). The eighth and final step consists of “Monitoring and Evaluating” the development of Community Forestry.

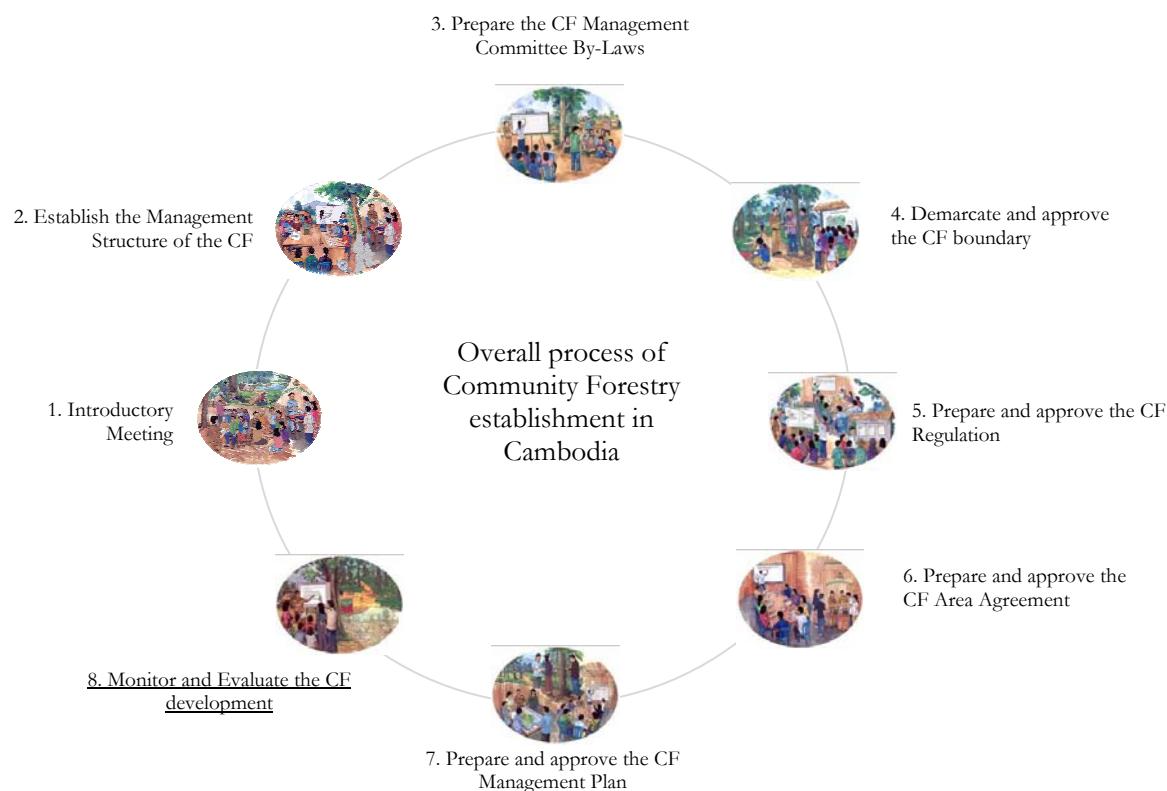


Figure 1. The overall process of Community Forestry Establishment in Cambodia

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In order to ensure sustainable CF management, it is agreed that CF organizations should develop their own tools and principles for monitoring and evaluating (M&E) their community forest as well as the social organization that governs its management. A 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 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.

The article examines the experiences of an original and pilot initiative (*The Community Forestry Research and Monitoring Project*) aimed at developing such an M&E system with three CF organizations in Kampong Thom province. It aims specifically to analyze the setting up of a local-level monitoring system using a Principle-Criteria-Indicators framework, identifying key lessons from its implementation and discussing the implications of such a pilot project for local CF management committees, for CF facilitators and for the FA.

The initiative is supported by the CBNRM Learning Institute, IDRC, CFI and the GTZ/DED-supported Rural Development Program (Kampong Thom) in close partnership with the Forestry Administration (Kampong Thom Cantonment and Tang Krasang Triage) and the Office of the Environment. It is part of their overall effort to support CF organizations and enhance a fruitful forestry co-management in Cambodia.

1 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 18 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 2. 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, *in fine*, 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. 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.

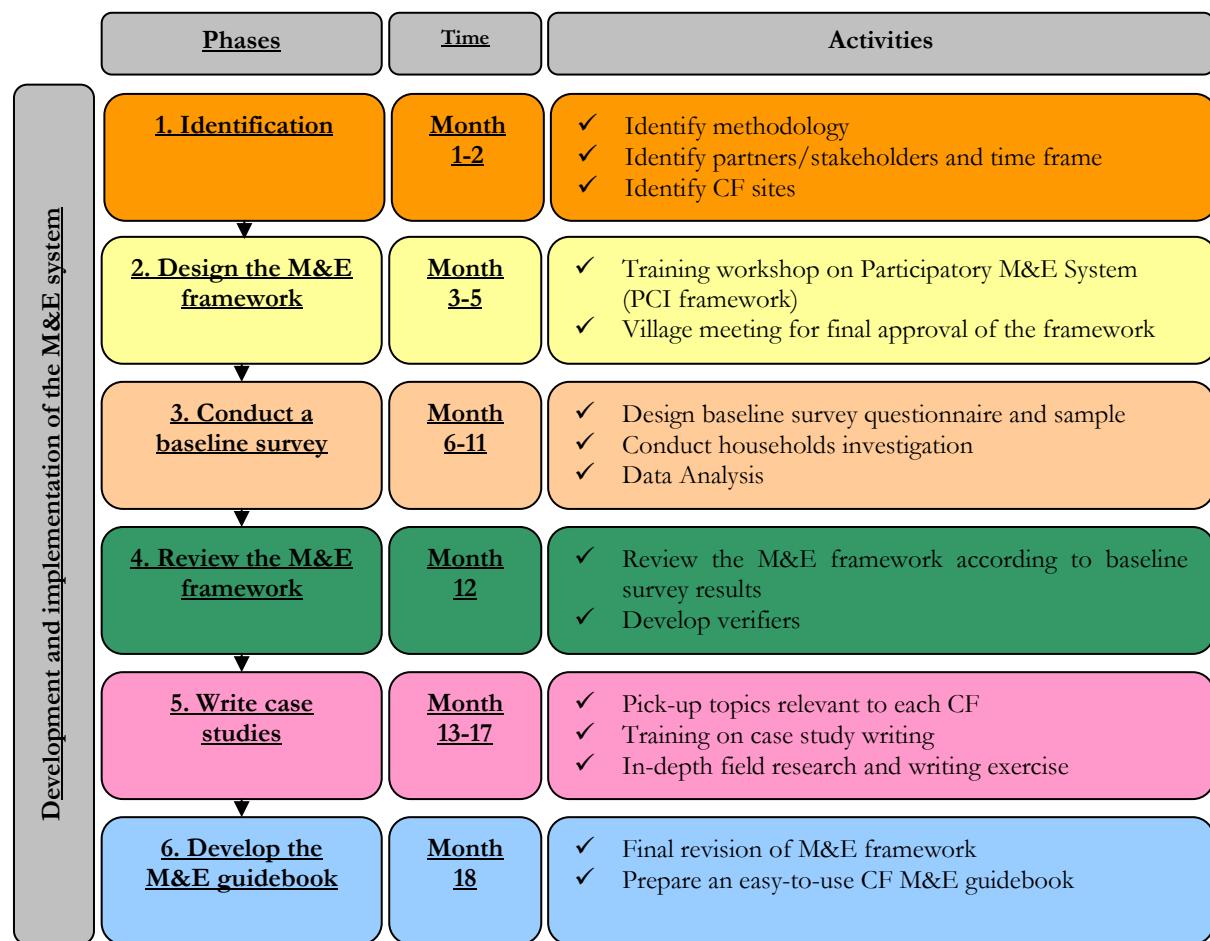


Figure 2. The overall process of development and implementation of the M&E system for sustainable community forestry management

2 The M&E system in the making

2.1 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

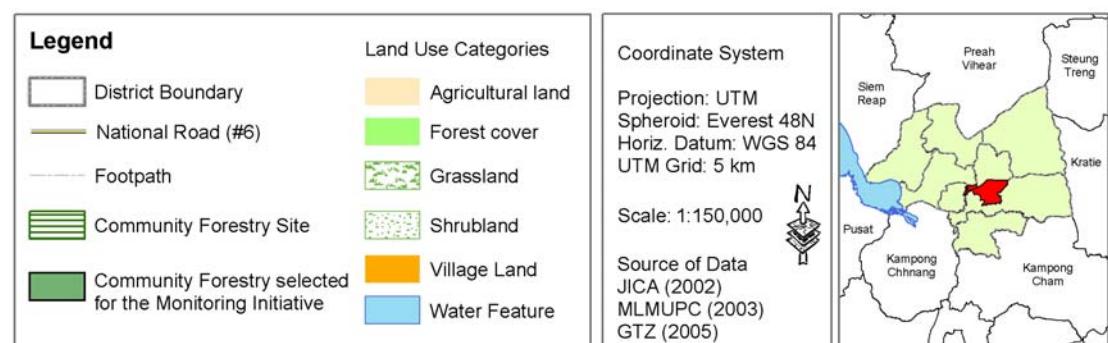
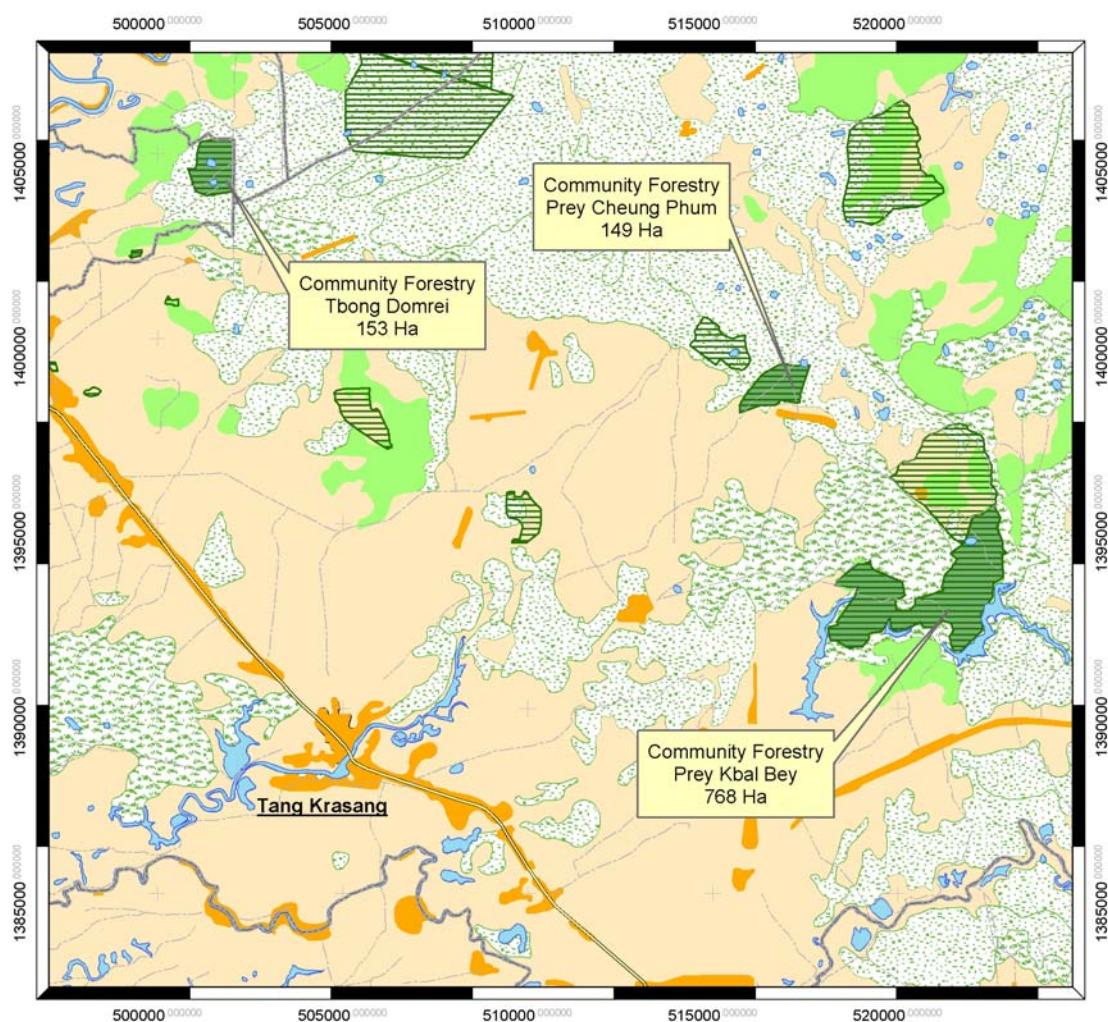
Name of Community Forestry organization	Date of creation	Village	Commune	District	CF Area	Number of individual CF members	Number of households among CF members
Prey Tbong Domrei	2001	Chong Da	Tbong Krapeu	Steung Saen	153 Ha	548 (51% female)	221
Prey Cheung Phum	2002	Choam Thnanh	Tipou	Santuk	149 Ha	208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

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



2.2 Designing the 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 3 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.

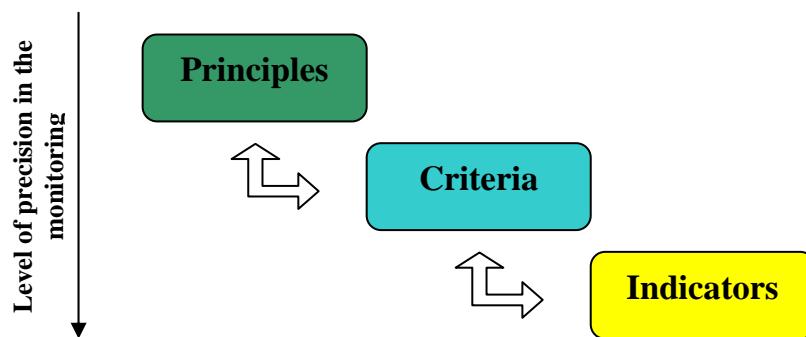


Figure 3. Hierarchy of the three M&E levels in the PCI framework

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 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.

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 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 4).

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.

1 st 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

Figure 4. Screen shot of the M&E framework related to the 1st principle of SCFM

2.3 Conducting the baseline survey

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) 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 Thanh	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 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. 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 5). 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 6). They give a clear signal to the CF management committee to improve the dissemination of information about CF affairs to all CF members.

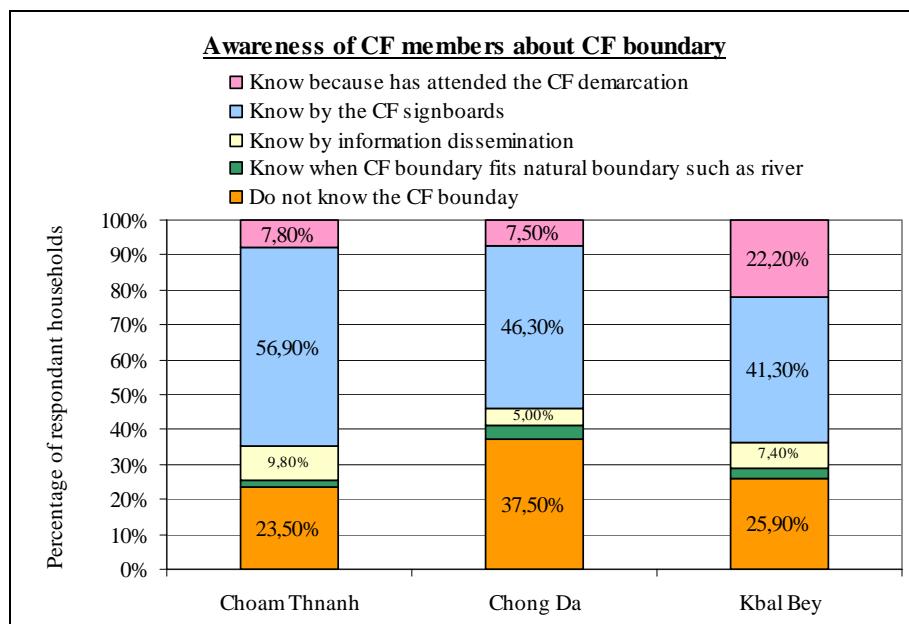
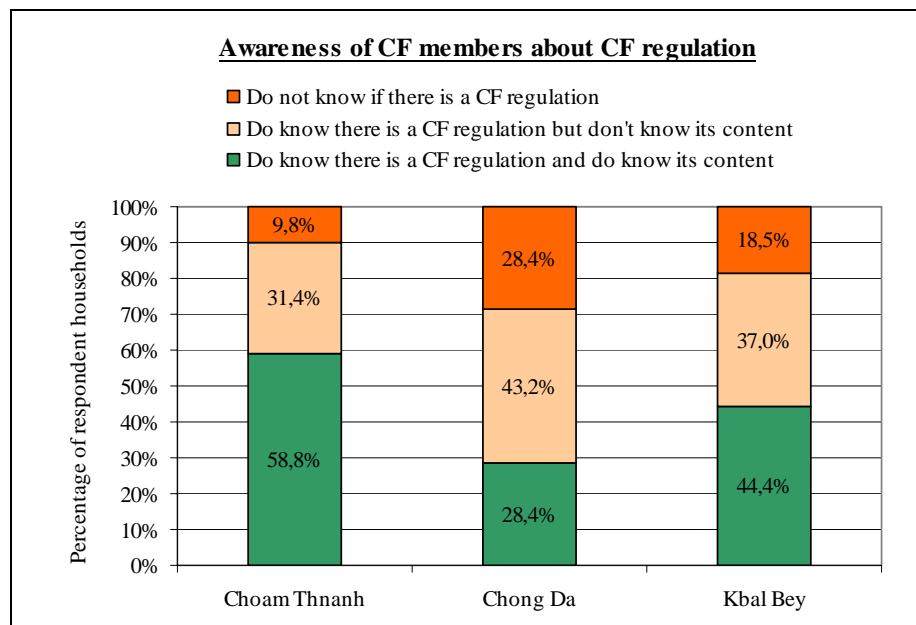
**Figure 5.** Awareness about the CF boundary, results of the baseline survey

Figure 6. Awareness about the CF regulations, results of the baseline survey



2.4 Reviewing the M&E framework and developing verifiers

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.

2.5 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
The diversity of use of NTFP in a Community Forestry area	Kbal Bey
The information flow inside a Community Forestry organization	Choam Thnhan
The marketing system of NTFP in a Community Forestry organization	Choam Thnhan
Community Forestry in the decentralization policy of natural resources management	Chong Da
Community Forestry as a strategy to reduce forest clearing	Chong Da

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 building activity.

2.6 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.

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

Legend: 1=very bad, 2=bad, 3=medium, 4=good, 5=very good

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

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.

3 Lessons learnt and implications for further development

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 an 18 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. 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.

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.) 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 a M&E framework is a very efficient tool in capacity building 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.

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 evolves 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, the monitoring and evaluation can be directly implemented on solid basis.

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.

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.

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