

# COMMUNITIES & CARBON

ESTABLISHING A  
COMMUNITY  
FORESTRY-REDD  
PROJECT IN CAMBODIA



2009



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PACT

# Acknowledgements

First and foremost, I wish to thank His Excellency Ty Sokhun, the Head of the Forestry Administration, for his strong support and visionary collaboration in working with CFI, Pact and other stakeholders to get this first REDD project off the ground. This study would not have been possible without the support of the Swedish research group Focali, which generously provided grant support for the writing of the study.

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## PACT

A Washington, DC-based NGO mandated to assist local communities to empower themselves through the introduction of effective government and responsible public and private institutions. Using both grass-roots and high-level efforts to achieve its goals, Pact maintains an active presence in countries on five continents.

Pact had been active in Cambodia since the early 1990s, focusing principally on governance and civil society programs. With extensive natural resource management work in other regions, Pact was selected by CFI to take over its broader Community Forestry Program, under which the Oddar Meanchey REDD project falls.



## COMMUNITY FORESTRY INTERNATIONAL

A California-based NGO dedicated to protecting the world's forests and the rights of the people who live near and depend upon them for their livelihoods. With a motto of "Forest rights are human rights", CFI can be credited with conceiving of the idea of using the REDD mechanism to safeguard the forests of Oddar Meanchey.

With an institutional focus on identifying new innovative initiatives for forestry protection, CFI turned the responsibility for REDD implementation over to Pact in early 2009.



## FOCALI

Focali (Forest, Climate, and Livelihood research network) is a Swedish research network focusing on forest bio-energy, climate change and poverty issues. Several Swedish universities and institutions are represented and the purpose is to ensure that Sida and other Swedish authorities have access to relevant knowledge for the effective use of forest operations to achieve climate-poverty targets. Focali also aims to increase the flow of relevant information between the scientific community, industry, government and civil society. Focali is funded by Sida and the coordinating secretariat is placed at the University of Gothenburg.

Focali has provided the funding for the writing of this study.



## CLINTON CLIMATE INITIATIVE

The William J. Clinton Foundation launched the Clinton Climate Initiative (CCI) to create and advance solutions to the core issues driving climate change. Working with governments and businesses around the world, CCI focuses on three strategic program areas: increasing energy efficiency in cities, catalyzing the large-scale supply of clean energy, and working to stop deforestation.

Under its Forestry program, CCI works directly with national governments, taking a made-to-measure approach to respond to specific needs and goals. It has supported the validation process and delivery of the Oddar Meanchey REDD project.



## TERRA GLOBAL CAPITAL

A San Francisco-based company focusing on the market for land-use carbon and other environmental credits. With institutional expertise in the measurement and monetization of carbon credits and carbon finance, TGC agreed to partner with the Government of Cambodia's Forestry Administration to measure the amount of carbon stored by Oddar Meanchey's community forests and sell the resultant credits on the global voluntary market.



## DANIDA

THE ROYAL DANISH EMBASSY,  
PHNOM PENH

The Royal Danish Embassy in Phnom Penh has administered a sizeable pool of funds to support the natural resources sector in Cambodia, funds which include contributions from Danida, DFID and NZAID. The Oddar Meanchey REDD project received a critical start-up grant from this pool of funds in early 2008. In addition, colleagues at the Embassy have provided valuable technical support to the program.



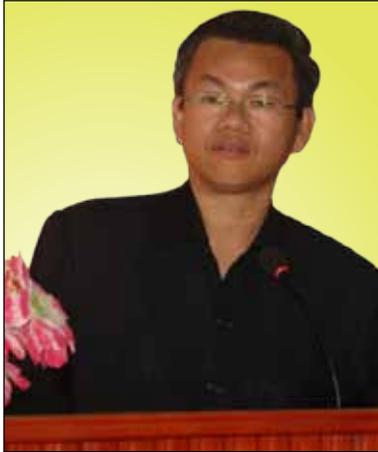
## CHILDREN'S DEVELOPMENT ASSOCIATION (CDA)

CDA is a local NGO based in Oddar Meanchey province. CDA has been implementing community forestry projects in Oddar Meanchey province since 2002 and currently plays an important role as a project partner. CDA implements a range of village-level field activities and also provides valuable information from the field to help address the drivers of deforestation.



## MONKS COMMUNITY FORESTRY ASSOCIATION (MCF)

MCF has been formed by the Venerable Bun Saluth, a visionary monk in Samraong pagoda (Oddar Meanchey), to support the forest protection activities at Sorng Rokavorn CF, the largest of the 13 sites in the project. MCF coordinates closely with local villages to effectively protect the forest area.



## STATEMENT BY H.E. TY SOKHUN, HEAD OF THE FORESTRY ADMINISTRATION

The REDD mechanism presents an important opportunity to shift the global trend away from forest loss and rising temperatures and toward forest protection and climate change mitigation. The Royal Government of Cambodia is firmly committed to utilizing this mechanism to protect its forests – which presently cover 59% of our country – and to improve the livelihoods of Cambodians living in and near the forests.

The Oddar Meanchey REDD project model is centered on local people's participation in forest management. In other parts of Cambodia, we have seen clear satellite evidence that mobilized communities can be highly effective in protecting forest resources, preventing encroachment, using forest products sustainably and even regenerating degraded landscapes. With the tangible financial benefits provided by REDD, these efforts will be greatly enhanced.

Under our 2006 Community Forestry Guidelines, communities across the country are obtaining legal tenure rights to forest resources, laying the foundation for significant future expansion of the community forestry/REDD model. The Forestry Administration is excited to exploit the full potential of this mechanism, which promises to greatly enhance our efforts to both protect our valuable forests and achieve our nation's goal of alleviating rural poverty.

I would like to conclude by taking advantage of this opportunity to thank all the supporters and stakeholders who participated in the community-based REDD process.



### **FORESTRY ADMINISTRATION**

*The arm of the Royal Government of Cambodia's Ministry of Agriculture, Forestry and Fisheries, the FA is responsible for managing forest resources in the Kingdom of Cambodia. Through Government Decision No. 699 the FA has been appointed as the agent selling forest carbon through consultation with the Technical Working Group on Forestry and Environment. The FA has initiated the Oddar Meanchey REDD project and plays the leading role as Implementing Agency in the development and management of the project in collaboration with and support from development partners. Officials from the central level as well as from the relevant Inspectorate, Cantonment, Division and Triage levels have all been actively involved.*

# INTRODUCTION



In December 2007, the Forestry Administration (FA) of the Royal Government of Cambodia introduced the Oddar Meanchey REDD project (OM-REDD). The initiative, Cambodia's first such project, is enabling the communities of Oddar Meanchey to safeguard their forests and, in the process, generate funds from the sale of "avoided deforestation" or REDD carbon credits on the global market.

REDD (Reduced Emissions from Deforestation and Degradation) is a relatively new climate control mechanism which gained currency at December 2007's Thirteenth Conference of the Parties to the United Nations Framework Convention on Climate Change (CoP 13 – UNFCCC) in Bali.

Under the REDD mechanism, developed countries may officially mitigate the environmental damage caused by their business activities by providing payments to developing nations who sustainably manage their forests and significantly reduce deforestation and degradation. While REDD has not yet been approved under the UNFCCC, its ratification is likely at CoP 15, to be held in December 2009 in Copenhagen and there is already an active voluntary market for REDD carbon credits.

OM-REDD is being submitted for validation to the Climate Community Biodiversity (CCB) Alliance and Voluntary Carbon Standard (VCS) in late 2009. After a period of public notice, and due diligence, the carbon credits the project generates will reach the voluntary carbon market in early 2010.

## Location

Oddar Meanchey is Cambodia's newest province. It shares a 224 km border with Thailand, and within Cambodia it borders Siem Reap, Banteay Meanchey and Preah Vihear provinces. The province's 6,158 square kilometers are divided into five districts: Samraong, Banteay Ampil, Chong Kale, Anlong Veng and Trapeang Prasat.

Among the final strongholds of the post-1979 Khmer Rouge (KR) guerilla force, Oddar Meanchey was not formally established as a province until April 27, 1999, following the capture of senior KR cadre Ta Mok. In part because of long-standing security concerns, there have been fewer development agencies working in the province than elsewhere in the country.



Even with the effective termination of the KR regime, security and economic activity in the province remain hampered by the continuing prevalence of land mines. A 2003 study found that almost 10% of all mine casualties in Cambodia occurred in Oddar Meanchey, the third-highest level in the country. A UNICEF survey in the eastern districts found that 85 percent of respondents suspected the presence of landmines or UXO (unexploded ordinance) in their settlements and almost a quarter had at least one family member injured by landmines or UXO in the 1989-2000 period.

Ironically, land mines have made the forests relatively less accessible and therefore perhaps contributed to protection to date, particularly along the Thai border escarpment. However, at the same time, mines pose a significant risk for REDD project implementation and for forest management activities in general.

Although recent dramatic increases in migration, land speculation and large-scale agricultural investments are changing the character of Oddar Meanchey, the province remains one of the nation's least developed and sparsely populated. According to 2004-05 demographic information, only four of Cambodia's 24 provinces have lower per capita income, with 27% of the population living below the poverty line and 51% of its children suffering moderate to severely stunted growth, both of which figures are considered "very high" in relation to national averages.

Oddar Meanchey historically has been densely forested. As recently as 2002, 75% of the province was covered with evergreen, semi-evergreen (mixed deciduous) and deciduous forest types. However, demand for timber and agricultural and settlement land has resulted in a decline in forest cover at an average annual rate of 2.1%. The steep decline in forests relative to other areas in the country (the national level of deforestation is 0.5%) is one of the principal reasons for selecting Oddar Meanchey as the location for this REDD initiative.

*Table 1. Forest Cover Change in Oddar Meanchey*

| Forest Type & Condition | Forest Cover in 2002 (ha) | Forest Cover in 2006 (ha) | % Change | % Annual Loss |
|-------------------------|---------------------------|---------------------------|----------|---------------|
| Evergreen Forest        | 166,935                   | 149,119                   | -11%     | -2.8%         |
| Semi-Evergreen Forest   | 71,319                    | 55,138                    | -23%     | -5.8%         |
| Deciduous Forest        | 251,728                   | 240,824                   | -4%      | -1.0%         |
| Open Forest             | 5,743                     | 12,050                    | 110%     | 27.0%         |
| Total Forest            | 495,725                   | 457,131                   | -8%      | -2.1%         |
| Barren land             | 167,440                   | 206,034                   | 23%      | 5.8%          |
| Total Land Area         | 663,165                   | 663,165                   | 0%       | 0.0%          |

Source: Forestry Administration and GRAS A/S at the University of Copenhagen



## Community approaches come into favor

Oddar Meanchey had experienced steady, significant deforestation since the fall of the Khmer Rouge regime. In the aftermath of a failed and suspended industrial logging concession system, the prospect of a community-based forest management solution began to gain currency.

The communities have long advocated for a collective, local approach to protecting the forest, in large part because it provides them more secure tenure for the forest resources they depend upon for their livelihoods, which they want to conserve for their children and grandchildren.

Having pledged in 2000 that it would work towards retaining 60% forest cover in the country, the Government ultimately determined that a community forestry approach would be consistent with its strategic goals of poverty reduction, decentralized government and improved environmental performance. This determination led to the Community Forestry Sub-Decree (2003) and Community Forestry Guidelines (2006). These addenda to the 2002 Forestry Law provided the legal framework for establishing community forestry, enabling local communities to secure rights to manage forest areas under 15-year renewable CF agreements.

While CF establishment moved ahead swiftly in Oddar Meanchey, a country-level analysis of forest cover change for the period 2002-2006 financed by Danida/DFID/NZAID, revealed that deforestation rates in the northwest of Cambodia were the highest in the country. This finding, as well as the potential to bundle together a number of larger CF sites, was among the reasons for the selection of Oddar Meanchey as the target province for the REDD project.

Another rationale for selecting the province as home to the REDD project is that it provides an opportunity for the Cambodian government to strengthen its ties to and support of a province and population that has only recently been integrated and where sympathies for the KR guerilla movement are thought to persist. This goal becomes of greater strategic importance for the Cambodian government in view of recent border tensions with Thailand.

## New era brings new pressures on forest

Several factors related to Oddar Meanchey's evolution from a hold-out KR settlement to a full-fledged province have the effect of putting new pressures on the forest. Chief among them is population growth. The province's overall population increased dramatically in the 1998-2008 period, with the overall population growing by almost 9% annually and the rural population almost tripling over the period.

Migration to the province and high birth rates are the principal reasons for the trend. If the trend continues apace, the province's overall population will exceed 500,000 by 2018, up from 124,500 just 20 years earlier. Such dramatic growth has critical implications for the REDD project in increasing demand for forest and land resources. Understanding and addressing population issues is of paramount importance.

*Table 2. Population growth in Oddar Meanchey Province: 1998 - 2008*

| Population | 1998   | 2008    | Annual % Increase |
|------------|--------|---------|-------------------|
| Rural      | 56,198 | 166,609 | 9.23              |
| Total      | 68,279 | 185,443 | 8.62              |

*Source: General Population Census of 2008*

Some of the migration has been driven by demobilized soldiers moving to Oddar Meanchey with their families, attracted by the availability of arable lands. Much of the migration appears to have occurred between 1999 and 2001, when new settlers could generally clear as much land as they desired. During this time, leaders of the fledgling communities freely allowed newcomers to join the community and clear land at will. At that time, the only apparent limitation on the quantity of land cleared was that of available labor for the strenuous task of cutting and clearing, which was the only prerequisite for establishing ownership.

There are some indications that the present practice of encouraging migration to the province is a deliberate development effort, though this strategy has not been clearly articulated. Such a scheme could be motivated by a desire to supply labor to new plantations or to increase the population along the border with Thailand for security reasons. Although economic downturns could temporarily slow the rate of emigration, these impacts are almost certainly temporary.

The locally prevalent means of livelihood development also have large implications for the future health of the forests. Currently the predominant means of income generation is rice farming, with rain-fed-paddy (sre) and slash-and-burn (chamkar) the two principal methods.

These methods – which limit cultivation to the rainy season – typically produce sufficient food for only six to nine months of the year, meaning that the majority of villagers do not consistently get enough to eat. Furthermore, the chamkar technique especially has a direct impact on the region’s declining forest cover, as the method allows fields to be planted for only one or two years before they are abandoned or left to fallow. This shifting cultivation is leading to rapid deforestation, and is unsustainable for farmers because eventually they run out of forest to clear.



It also means that rural people must rely on other food or income sources to supplement their livelihood. These include selling labor, raising livestock (chickens, pigs, and cattle) and the collection of forest products. In regards to the latter, the market for many forest products is relatively easy to access and for some products (particularly liquid resin and prech leaves<sup>1</sup>, the latter of which is a popular flavoring in Thai soups) buyers will go to virtually any village where people have them to sell.

Resin tapping is practiced year-round and is one of the most lucrative of the legal forest activities villagers undertake. Many villagers also derive income from logging, which is usually done seasonally; charcoal production is also significant<sup>2</sup>. Other uses of the forest are less significant, but, combined, provide a safety net to families during difficult times. However, forests are rapidly disappearing due to clearing of chamkar fields and logging by villagers and, on a larger scale, the military.

<sup>1</sup> Meliantha suavis, a dried leaf used in soups, primarily in Thailand.

<sup>2</sup> Timber harvesting and charcoal production for sale and without an approved management plan as well as hunting of threatened wildlife species are examples of illegal forest activities. On the other hand, collection of forest products according to “customary use” is legal under the Forestry Law (2002)

# PROJECT HISTORY

## IMPLEMENTATION AND ITS PRECURSORS

The genesis for REDD's application in Cambodia can be traced to a November 2007 meeting of the joint donor-Government Technical Working Group on Forestry and Environment. There, the director of Community Forestry International (CFI), Dr. Mark Poffenberger, introduced the REDD concept and suggested that it would be a logical addition to the existing Community Forestry work in Oddar Meanchey, which was of a sufficient scale, in hectare terms, to justify the preparation costs of a REDD project.

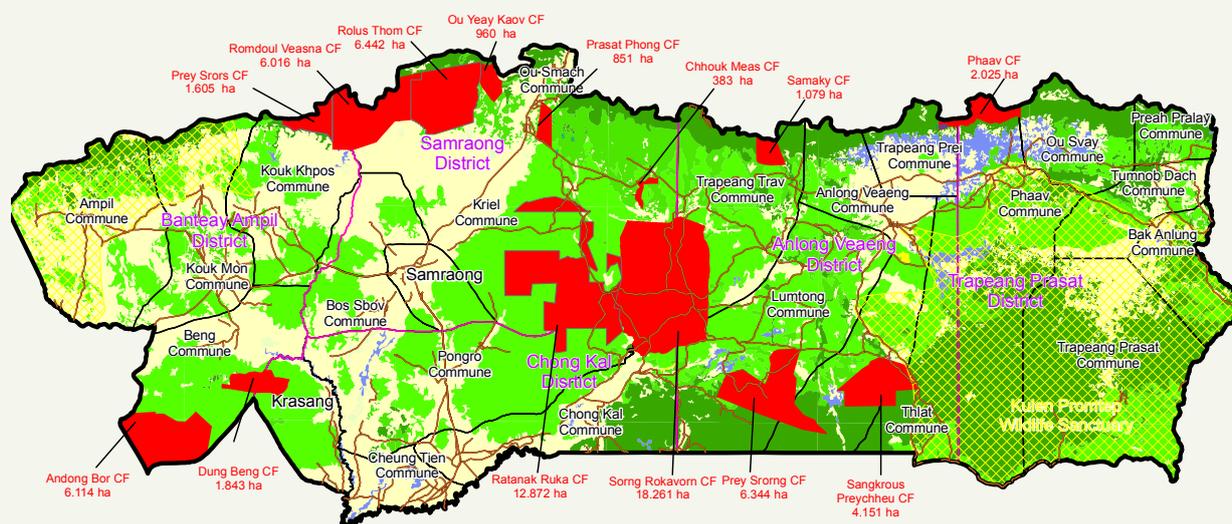
At that stage, REDD was beginning to generate significant interest in environmental circles, and would gain groundswell endorsement a month later at the December 2007 UN climate change conference in Bali. There, the gathering expressed commitment to developing a REDD framework for integration in a post-Kyoto regime.

Although Kampong Thom province was also seriously considered as a site for the REDD project, Oddar Meanchey was identified as having the highest potential for success, primarily because of the relatively large size of CF sites (which promotes greater economies of scale), as well as the historically high annual rate of deforestation in the province. The latter meant that the project would be able to generate a greater number of net carbon credits if deforestation could be reduced.

The Government's response to the Oddar Meanchey REDD project concept was enthusiastic, and a "green light" was given for CFI to pursue support for implementation. With Government support in place, the implementation team began to assemble the necessary components to take the project from vision to reality.

With no team members possessing the required carbon modeling and carbon marketing experience, US firm Terra Global Capital was engaged to provide support for the technical aspects of carbon development. Critically, because the project had limited funding, Terra Global agreed to provide in-kind carbon development and monetization services in exchange for a percentage of the future carbon credits generated.

Figure 1. Oddar Meanchey Project Site (CF Areas are shown in red)



The next step was to install sufficient capacity to field-test the REDD mechanism before December 2009, when COP 15 was scheduled to be held in Copenhagen. By February 2008, fueled by vital support from project donors, a grant agreement was unveiled. Endorsed by the head of the Forestry Administration, H.E. Ty Sokhun, the agreement outlined the project objectives as:

- 1 Building a partnership among stakeholders, including CFI, the Forestry Administration, local NGOs and participating CF groups and communities surrounding the project areas;
- 2 Increasing the capacity of CF groups to manage their forests;
- 3 Assessing and verifying carbon stocks and additionality;<sup>3</sup>
- 4 Preparing a CF Carbon Project Proposal;
- 5 Negotiating and finalizing a Carbon Contract; and
- 6 Defining a revenue/net income sharing plan to cover CFI and FA costs and a profit distribution plan for CF groups.

Table 3. Project Sites and Community Beneficiaries

| ID    | CF Group Name             | Commune                  | District        | No. Of Villages | No. of Households | CF membership% | CF Size (ha) |
|-------|---------------------------|--------------------------|-----------------|-----------------|-------------------|----------------|--------------|
| 1     | Andong Bor CF             | Kouk Khpos               | Banteay Ampil   | 4               | 746               | 91             | 6,114        |
| 2     | Chhouk Meas CF            | Koun Kriel               | Samraong        | 1               | 166               | 100            | 383          |
| 3     | Dung Beng CF              | Kouk Khpos               | Banteay Ampil   | 4               | 558               | 85             | 1,843        |
| 4     | Ou Yeay Kaov CF           | Koun Kriel               | Samraong        | 1               | 177               | 88             | 960          |
| 5     | Phaav CF                  | Phaav                    | Trapeang Prasat | 4               | 429               | 100            | 2025         |
| 6     | Prey Srong CF             | Lumtong                  | Anlong Veng     | 5               | 662               | 71             | 6,344        |
| 7     | Prey Srors CF             | Kouk Khpuos              | Banteay Ampil   | 2               | 246               | 97             | 1,604        |
| 8     | Ratanak Ruka CF           | Samraong ,<br>Koun Kriel | Samraong        | 16              | 3,072             | 76             | 12,733       |
| 9     | Rolus Thom CF             | Koun Kriel               | Samraong        | 4               | 906               | n/a            | 6,376        |
| 10    | Romdoul<br>Veasna CF      | Bansay Rak               | Samraong        | 4               | 878               | 88             | 6,007        |
| 11    | Samaky CF                 | Trapeang Tav             | Anlong Veng     | 4               | 686               | 75             | 1,079        |
| 12    | Sangkrous<br>Preychheu CF | Anlong Veng              | Anlong Veng     | 3               | 633               | 82             | 4,151        |
| 13    | Sorong Rokavorn           | Koun Kriel               | Samraong        | 6               | 877               | 100            | 18,164       |
| Total |                           |                          |                 | 58              | 10,036            | 88 (avg.)      | 67,783       |

Source: CCB Project Document

<sup>3</sup> Additionality is one of the key outputs to be achieved by the project. The term, defined by the Kyoto Protocol, refers to real, measurable and long-term benefits that would not have occurred without the project.

An official Launching Workshop for the project was held with all major stakeholders in the town of Samraong in March 2008 to introduce the REDD project concept, identify the main drivers of deforestation and discuss coordination mechanisms. Although participant feedback was limited, it served to officially sanction the start-up of the Oddar Meanchey REDD project. It also succeeded in sparking the interest of the intended stakeholders, who expressed a mixture of skepticism and hope that the new approach could help stop forest destruction.

## Support from the top

One of the critical factors in the project's success so far has been the support it generated at the highest levels of the Cambodian state. With no government policy or procedure for the management of REDD projects and revenues, designating a body to act as "Seller" of the forest carbon and to manage revenues could have been a politically difficult process. The behind-the-scenes lobbying for the right to secure this status would in many countries have generated sufficient inertia to effectively kill the project.

Fortunately in this case, H.E. Ty Sokhun was able to secure a special audience with H.E. Prime Minister Hun Sen, to whom he serves as an Advisor. Making a persuasive case for the FA's ability to direct the majority of the carbon credit funds to the forest communities, the Administration in May 2008 was designated the official seller of forest carbon under Government Decision (GD) No. 699.

GD 699 confirms that revenues from the Oddar Meanchey project will be used to improve the quality of the forests to maximize the benefits flow to local communities participating in the project and study potential sites for new REDD projects. It has proved to be a vital credential.

On a practical level, it reassures stakeholders, notably including future carbon credit buyers, that the Cambodian government is firmly committed to the project. It also plainly designates one authorized government entity to act on behalf of the project, a challenge for REDD projects in general.

Moreover, the GD is clear evidence of the serious support the project commands at the highest levels of the Government, a factor that has been critical in solving conflicts between communities, concessionaires and the military.

The act of designating one authorized seller made communications and negotiations between the Government (as represented by the FA) and the selected carbon broker immeasurably simpler, but they were still not without challenges.

Terra Global had been selected to assist with the carbon modeling work and development of the methodology that would allow the project to be submitted to the Voluntary Carbon Standard. The American firm was relatively new, but already boasted solid expertise in carbon modeling. This was critical as at the time of selection the methodologies for measuring forest carbon from REDD projects were still undeveloped and there were very few individuals around the world with the skills to develop the methodology and apply it to a site such as Oddar Meanchey.

A critical factor in the selection of Terra Global as a partner was its willingness to forego up-front payment in exchange for a portion of the credits. After extensive negotiations, agreement between it and the FA was consummated when Terra Global further proved willing to accept the FA's offer of a lower percentage of credits after reserves and to forego first right of refusal and certain confidentiality provisions.



Several billboards were installed in the provincial town to increase awareness of the project.

## Getting buy-in on the ground – fostering a sense of stakeholder investment

A vital early (and ongoing) task was to build understanding and a sense of commitment to the project by the various local stakeholders, including the communities, provincial authorities and local FA.

Critical to the project team's approach was to work with existing partners in the province rather than install its own workforce. For instance, CFI contracted the local NGO CDA to introduce the REDD project to more than 50 villages in the project area during one-day workshops in each. The workshops introduced the REDD project, while also consulting with local communities and seeking their advice on optimal means of implementation.

As can be imagined, the concept of global warming (and hence the reason why outsiders would pay villagers to protect their forest) was not intuitive to isolated rural Cambodians. Project staff determined that the best way to make the REDD concept intelligible to local communities was to present it as “selling oxygen”, a simplification of REDD that made sense to villagers.

A subsequent meeting revealed that provincial authorities also were unsure of the climate change concept, resulting in more training and awareness-raising activities with province-level officials, district officials, police and military personnel.

Although the frequent meetings, communications, training and awareness-raising workshops represented more effort and investment than were originally budgeted, they and the GD 699 were the key elements in the project's success in winning essential support from the Oddar Meanchey provincial government. This success was evidenced in Samraong during the July 2008 Arbor Day celebration, when H.E. Governor Pich Sokhen publicly expressed his strong support for the project and encouraged all authorities to cooperate in implementation.

Winning community involvement was vital, but the victory would be short-lived if the project was unable to maintain the villages' sense of investment. To foster a sustainable spirit of participation, the project elected to increase support for the Community Forestry Federation in the province. The Federation is comprised of representatives from each community forest. With a budget to allow for regular meetings, members traveled to all sites to collect and share information in the target communities. Articles of association were drafted in tandem with an annual action plan.

The Federation has been effective in sharing information and, in conjunction with the provincial authorities, resolving the major problems affecting the CF sites. Federation leaders have also been able to represent the twelve communities in provincial level meetings. Moving forward, the democratically elected CF Federation could play a fundamental role in representing CF needs to government authorities, as well as ensuring transparent and accountable management of carbon revenues.

## Satisfying Cambodian requirements – CF legal tenure

An important legal prerequisite enabling the project to proceed was that the 13 communities meet the formal requirements for legal recognition as an official Community Forest, as mandated by the Forestry Law (2002) and Community Forestry Sub-Decree (2003). Under an official 8-Step CF Establishment process endorsed by the FA, communities are required to develop and submit numerous legal documents as part of their application for CF recognition.

The thirteen communities in Oddar Meanchey had reached various stages in developing these documents, but all needed substantial additional support to meet the full requirements. As a participatory approach in every activity is a vital ingredient for the REDD project's sustainability, the implementing team worked intensively to assemble stakeholders, provide training and coach communities through the processes and requirements for CF legalization. In some cases, conflicts arose along the way, either among stakeholders within a community or, more often, with external groups, such as the military or economic land concessionaires. CFI and CDA cooperated with the FA to address as many of these issues as possible in order to clear the way for approvals of CF Agreements and to ensure that participating communities had clearly demarcated parcels of land where there were no other claims.

As part of the recognition process, the FA Inspectorate Office created a site verification and enforcement team to visit each site to address conflicts. Since the project launch in January 2008, the team was able to crack down on forest clearings by military, prevented military base construction in several different CFs and solved six incidents of illegal logging and land encroachment. Solution of these problems – which in and of themselves illustrate the Government's commitment to the project – clears the way for the process to move forward.

## Satisfying external requirements – the Project Document

The Project Document (PD) is the most important formal requirement in submitting a REDD project to both the Climate Community Biodiversity (CCB) and the Voluntary Carbon Standard (VCS). (The project is being submitted to both certifiers in order to boost the quality of the resulting credits.)

These two organizations provide standard guidelines for projects with regards to carbon accounting and social and biodiversity benefits and require upfront validation before a REDD project goes to the voluntary carbon market. In the case of Climate Community Biodiversity (CCB) standards, the emphasis is on evaluating social and environmental impacts, while the VCS is more oriented to rigorous carbon stock assessment.



Terra Global specialists visit the site to make initial measurements and assess the capacity of inventory teams.

The relatively more straightforward PD for the CCB was drafted by the project team and informed by staff fieldwork and extensive knowledge of the overall situation in the project area. Before the PD for the VCS could be created, a methodology needed to be developed and validated by a third party. Terra Global was tasked with developing the carbon methodology and the PD for the VCS, which demanded an accurate estimate of the carbon stocks in the project area.

Terra Global satisfied this requirement by analyzing and comparing field inventory and remote sensing data. It developed standard operating procedures to establish an initial set of 60 permanent plots in the targeted CF areas, with randomly selected locations.

The task was complicated by the prevalence of landmines, which continue to litter Oddar Meanchey. Assistance from local people (especially former Khmer Rouge soldiers) was critical in helping the inventory teams know which areas to avoid. After two rounds of inventorying, a total of 164 forest plots (permanently established) and 44 agricultural plots were measured across the target CF sites to satisfy the VCS requirements.

## Keeping trouble out – enforcement strategies

From its inception, it was apparent that effective enforcement strategies would need to be applied to the perpetrators of deforestation and degradation if forest resources and carbon stocks were to be truly safeguarded.

No strategy would be successful without the committed participation of the authorities – especially the FA – as they hold the strongest mandate to halt illegal activity in the forest.

To ensure that the vital spirit of stakeholder involvement was maintained, a study was designed for implementation by the Siem Reap FA Cantonment (the remit of which includes Oddar Meanchey).

The interviews with 28 stakeholders across the province provided valuable insight on the extent of forest crime, the nature of these crimes, the proposed strategies for addressing the situation and the resources necessary for success. The FA reported that stakeholders emphasized the following needs:



Patrol team members from Sorng Rokavorn CF

- Educating CF members;
- Increasing frequency of patrols;
- Clearly demarcating the CF areas;
- Prosecuting offenders and levying fines; and
- Increasing support from the local FA and commune.

Following the study, the FA was supported to develop a better reporting structure to govern how villagers report incidents of illegal activity in the CF and how the FA responds to the reports.

Throughout the process, patrols have been the most visible manifestation of the communities' efforts to protect their forests. Villagers have contributed their time and resources (e.g., food, fuel and motorbikes) to conduct regular forest patrols, during both day and night.

The villages conduct these missions at the cost of considerable effort and danger, with some members contracting malaria or facing threats from armed soldiers. Even at these costs, the importance of the forest means that the patrols continue and most CFs maintain a regular protective presence in their forests.

# DRIVERS OF DEFORESTATION AND DEGRADATION

Understanding and effectively addressing the principal agents behind deforestation and degradation is the essential aspect of REDD project development and implementation. Aside from the obvious rationale behind stopping deforestation and degradation of the forest is a more nuanced reason: if harm to the forest is not avoided to the necessary degree, the prevailing authorities will assess no additionality. Without additionality, no carbon revenues will be awarded.

Table 4 below, part of the PD, provides an overview of the 11 primary drivers of deforestation and degradation and their “agents”. It is also useful to identify the agents of damage to the forest on a national, provincial and local level. Armed with this information, an effective response becomes much more likely.

Table 4. Drivers of Deforestation and Degradation and Their Agents

| Deforestation Driver                            | Deforestation Agents |                   |                   |         |          |       |
|---|----------------------|-------------------|-------------------|---------|----------|-------|
|   | Migrants             | Private Companies | Local Communities | Hunters | Soldiers | Other |
| 1. Forest clearing for land sales               | ●                    |                   | ●                 |         |          |       |
| 2. Conversion to cropland                       | ●                    | ●                 | ●                 |         |          |       |
| 3. Conversion to settlements                    | ●                    |                   | ●                 |         |          |       |
| 4. Fuel-wood gathering                          | ●                    |                   | ●                 |         |          |       |
| 5. Annual forest fires                          |                      |                   | ●                 | ●       |          | ●     |
| 6. Illegal logging for commercial on-sale       |                      | ●                 |                   |         |          | ●     |
| 7. Timber harvesting for local use              | ●                    |                   | ●                 |         | ●        | ●     |
| 8. Large economic land concessions              |                      | ●                 |                   |         |          |       |
| 9. Small economic land concessions <sup>4</sup> |                      | ●                 |                   |         |          |       |
| 10. Timber Concessions                          |                      | ●                 |                   |         |          |       |

Source: CCB Project Document

## National-Level Drivers

National-level drivers of deforestation and degradation are in some regards the most challenging to address, particularly from the perspective of villagers and NGOs. Decision-making is geographically removed from the area of impact, usually occurring in Phnom Penh and typically with little or no public consultation. Though some investments may directly affect a line agency such as the FA, officials will sometimes not be consulted or informed about a new concession until a final agreement between the Government and the concessionaire is signed.

<sup>4</sup> The significance of small economic land concessions as a driver decreased in late 2008 when the Government withdrew the right of provincial authorities to grant Economic Land Concessions under 1000 hectares.

The Oddar Meanchey project has shown that national-level drivers of deforestation and degradation can be effectively confronted, even if the process may require compromise on some issues.

### ● Economic Land Concessions

The system of economic land concessions (ELCs) is one of the largest causes of deforestation in Cambodia. Although dealmakers justify the practice by saying that new investment areas had already lost their forest cover and would be more economically valuable if converted to cropland or plantations, this argument is not always valid; in some documented cases, forest clearing has taken place without any subsequent agricultural investment.

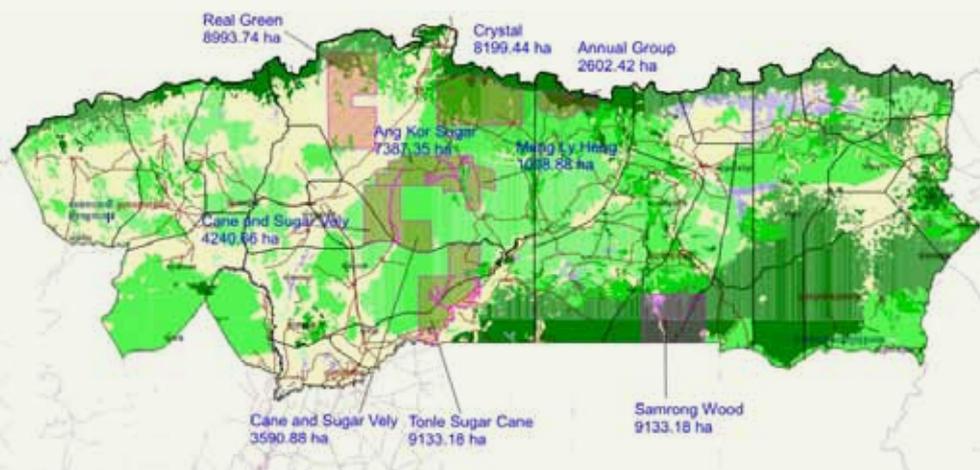
Underscoring the nature of the practice is the fact that even though the law limits new ELCs to no more than 10,000 hectares, the Ministry of Agriculture Forestry and Fisheries' logbook categorically states that nine ELCs are currently over 10,000 ha. While accurate information on land concessions remains elusive, ELCs have undoubtedly brought about some of the most significant changes to the Cambodian landscape in recent years.

Oddar Meanchey is no exception to the growth in ELC investment. Between 2007 and 2008, seven large ELCs covering 54,978.2 hectares were signed off by the national government and the provincial governor approved an additional three small ELCs. This does not necessarily represent the scope of the land lost to cultivation, as the official ELC coordinates often do not correspond to the clearing that occurs on the ground. The example of Ratanak Ruka CF (see box) provides more insight into the threat posed by ELCs and the potential to use a coordinated response to counteract it.

Encouragingly, the Real Green economic land concession was formally cancelled in February 2008 due to a lack of activity on the part of the concessionaire. H.E. Ty Sokhun has proposed bringing a sizable portion of this area under community forestry management and including it in the project, a proposal towards which the project partners are currently working.

*Figure 2. Statistics and Map showing Economic Land Concessions in Oddar Meanchey*

| Concession          | Size(ha)            |
|---------------------|---------------------|
| Real Green          | 11,760.02           |
| Angkor Sugar        | 7,387.35            |
| Cane and Sugar Vely | 7831.54             |
| Tonle Sugar Cane    | 9133.18             |
| Samraong Wood       | 9657.79             |
| Crystal             | 8199.44             |
| Meng Ly Heng        | 1008.86             |
| Non-forest          | 7,296,475 ha        |
| <b>Total</b>        | <b>54,978.18 ha</b> |



## ● Annual Coupe Timber Concessions

Following the end of industrial logging in Cambodia and a national moratorium on logging, the Government realized that it needed to design a new system for extracting timber and, at a minimum, supplying domestic markets. As a result, annual coupes were established in several provinces, including Oddar Meanchey. Under this system, areas of forest generally over 1,000 hectares are auctioned off in a public bidding process. The highest bidder is given permission to harvest timber in the area for one year, provided it follows sustainable management practices.

It is not clear if this system has been successful, although a local FA official reported that the high government fees and taxes and expensive transportation costs have limited interest by potential bidders. The situation means that the legal market cannot yet compete with the illegal market for timber.

In Oddar Meanchey, there is one annual coupe covering approximately 1,200 hectares of forest in the northeast of the province. This forest area was originally part of Samaky CF, but the community agreed to an FA request to manage the area. The community leader, Mol Nen, admitted that the community agreed to give up a significant portion of the CF area because the area is thought to be too mine-infested for the community to access the forest. The community may also have perceived a strategic interest in improving its relationship with the FA.

## Province-Level Drivers

Identifying provincial drivers of deforestation and degradation is important to developing appropriate strategies in the context of the stakeholders involved at the province level. Though national actors can be called upon to assist in finding solutions to challenging issues in the province using a top-down approach, longer-term prevention of these drivers will require commitment and involvement from key decision-makers closer to the province, including provincial, district and commune authorities, as well as regional military commanders.

### Case: Ratanak Ruka CF – A moral victory for the community

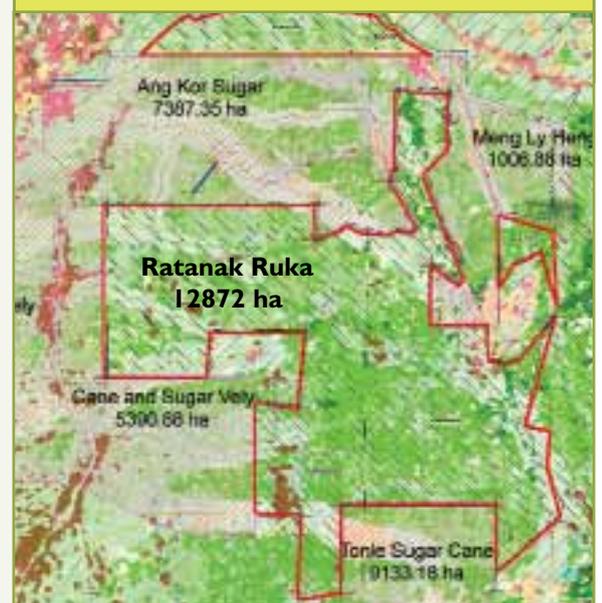
*At 12,872 hectares of evergreen and semi-evergreen forest, Ratanak Ruka CF is one of the project's largest. And, tenured by 16 villages, it is also one of the most complex to manage.*

*Its most important distinction, however, is found in the example it provides of a committed community prevailing over powerful entrenched interests in reclaiming its forest from whole-scale destruction.*

*In 2007, the communities learned that the majority of their forestland had been allocated as economic land concessions (ELCs) to private companies for conversion to jatropha and sugar cane plantations.*

*Undaunted by the fact that the concessionaires included some of Cambodia's most powerful businessmen, the communities tirelessly lobbied the FA and the MAFF for the right to retain their stewardship over the land. Their zeal prompted the Government to work towards a compromise solution.*

*While the end result saw 39% of the forest awarded to the ELC, the successful fight against powerful private interests to retain the majority of their forest represents a considerable victory for the communities of Ratanak Ruka. Their efforts provide a model for emulation for other rural communities.*



## ● Private Investment

Private investment, particularly in land, has posed a significant challenge to forest protection efforts. In addition to ELCs, there are also myriad smaller investors involved in land speculation who deal directly with local officials. A dramatic increase in land values spurred a flurry of transactions in 2008, as wealthier individuals invested in Oddar Meanchey land with aims to develop plantations or orchards or for speculation purposes. One survey respondent reported selling a parcel of land for \$20,000 in December 2007 a year after a neighbor had sold a similar parcel for \$1,000, reflecting a 2,000% increase in land values during a one-year period. As a result of the economic down turn and prices have dropped significantly however, they are expected to rise again as the economy recovers.

Table 5. Land prices in Oddar Meanchey

| Location                                   | Price per Hectare Early 2008 | Price per Hectare mid-2009 |
|--|------------------------------|----------------------------|
| Provincial/District Town (Samraong)        | \$75,000 to \$150,000        | \$20,000 – 30,000          |
| Major Roadside (i.e. Samraong-Anlong Veng) | \$6,000 to \$10,000          | \$3,000                    |
| 0.5 to 1 km from Roadside                  | \$1,500 to \$3,000           | \$300 - \$500              |
| 1 km to 5 km from roadside                 | \$300 to \$1,500             | \$200 - \$300              |

*\*Based on social appraisal survey and interview with project staff*

## ● New Village Establishment

The establishment of new villages – which are typically sanctioned by commune, district, and provincial authorities – is directly related to the influx of migrants to the province, but also indicates a more systematic approach to provincial development. They may be established to settle soldiers or landless groups of migrants, sometimes as part of a “social land concession”,<sup>4</sup> a legal instrument adopted by the Government and supported by some donors to resettle the landless.

Land-use planning in Cambodia is rudimentary and most provinces, including Oddar Meanchey, do not have a centralized GIS database to assist in decision-making. The case of Romdoul Veasna CF (see box on page 20) illustrates some of the local dynamics related to and problems caused by a new settlement inside and around the CF area.

## Local Level Drivers

### ● Logging

Communities throughout the province report that all forest land throughout the province was open to selective logging by Thai timber companies during the 1990s. Various communities estimate that anywhere from 10-30% of the trees in their forest were felled during that period. Although this level of logging has now subsided, communities report ongoing challenges to control logging in the CF areas.

According to the Forestry Law, community members have the authority to apprehend illegal loggers in the CF areas, but offenders and / or any confiscated equipment should be taken to the nearest FA office

<sup>4</sup> Social land concession is a legal instrument adopted by the Royal Government of Cambodia to provide land to the landless. While there are no social land concessions per se in Oddar Meanchey yet, the approval of new villages to settle landless migrants is very similar in impact.

within 48 hours. In Romdoul Veasna, CF villagers indicated that they “do not feel comfortable apprehending loggers, because in many cases they are protected by old-timers, and as such, they would not try to stop the loggers without the support of the FA.”<sup>5</sup>



### ● Opening New Small-Scale Agriculture

Forest clearance for new small-scale agricultural plots is driven by migration pressures, as well as natural population growth and the expansion of existing families and their need for cultivation areas.

While the FA has been flexible in allowing families with existing claims within the CF areas to continue to cultivate their land, there will be strict prohibition on further agricultural expansion. With insufficient access to family planning services and limited education for girls, which would tend to reduce fertility rates, the internal community pressure for land resources is likely to continue to increase.

In interviews with CFMC members and local officials, selling land and clearing land for agriculture were cited as some of the most important underlying causes of deforestation and degradation.

### ● Fuelwood Collection

The vast majority of rural Cambodians rely on wood fuel to meet their energy needs, consuming approximately 3 cubic meters per family per year. In Oddar Meanchey, the prevalence of forests near the village further increases this reliance, as there is less incentive to explore other energy options, such as biodigesters. Usually dead wood is collected for family use in cooking and lighting, although collection of timber and production of charcoal for markets is also quite common, particularly among families with their own tractors. In recent years, buyers may also come to the village to collect timber or charcoal and transport it themselves to markets in the provincial town of Samraong or other towns in the area.

Communities have been assured that their access to wood for family use will be maintained; however, market-oriented fuelwood extraction may require stricter limitations.

## Dealing with Drivers of Deforestation and Degradation

Through its experience in Oddar Meanchey, the project team has developed some suggested techniques communities can use to improve the protection of their forests.

- **Reinforcing Land Tenure-** Securing CF tenure is critical because it ensures long-term management rights and provides legal recourse in the event of conflicts.
- **Forest and Land-use plans-** The development of participatory forest and land-use plans to assist communities in managing forest resources and allocating their land resources appropriately is vital. An effective plan will place emphasis on sustainable uses and methods for controlling migration and agricultural expansion.
- **Forest protection-** This tool has two elements: on the ground patrols by the community, with targeted use of the FA’s mobile enforcement unit; and a long-term strategy to reduce forest crime through prosecution and deterrence.

<sup>5</sup> McMahon, Dennis. CF Assessment and Migration Study, 2008.

### Case: Romdoul Veasna CF – pressure from within, pressure from without

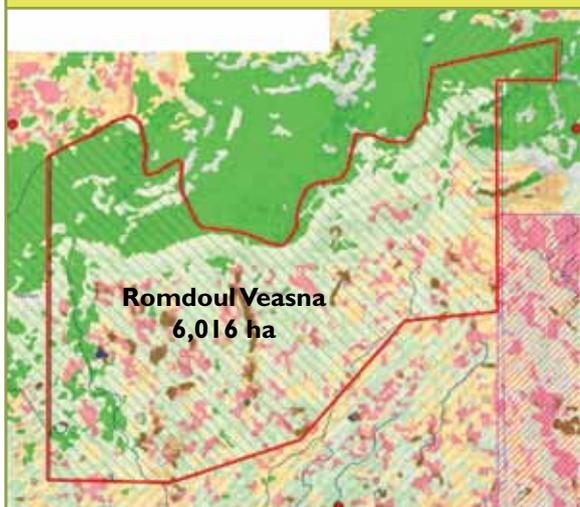
Romdoul Veasna CF covers 6,007 hectares and is managed by four villages, comprised of 379 CF member families.

Although the site has been well managed by a motivated Community Forestry Management Committee (CFMC) since its inception as a CF, the forest came under threat in mid-2007, when attempts were made to establish a new village in the Southern part of the CF area.

The attempt at undermining the integrity of the forest, orchestrated by a former CFMC deputy and a local Commune chief, saw land sold to 70 migrant families who moved into the area and began clearing forest for settlement and agriculture purposes. That particular issue was resolved in early 2009, when the FA Inspectorate Chief and a team of armed forces arrived to remove the new settlements and present the ringleaders to the courts in Siem Reap.

However, there is evidence that additional new villages are planned for establishment around the borders of the CF, a development that will increase pressure on the forest area. With land values in the area steadily increasing, villagers report the clearing of 1,500 hectares and fear further land sales. They have attempted to mark forest boundaries with cement poles, but such efforts have been ineffective.

Border tensions have also put the forest under pressure, with new military camps planned for the area. The installations would occupy one square kilometer of land and soldiers may be entitled to 5 hectares each to grow food. H.E. Ty Sokhun has communicated with the regional military commander to ensure that such camps are located outside the CF areas, but vigilance will be required if the forest is to remain intact.



- **Assisted Natural Regeneration (ANR) and enrichment planting-** ANR is the technique of pruning, cleaning and thinning in order to promote healthier forest growth and increase carbon stocks. Plans for enrichment planting and ANR are already being put in place, and communities have been supported through micro-grants to establish five tree nurseries. The project aims to plant approximately 60,000 seedlings per year in the first five years of project implementation.
- **Respecting local customs and beliefs-** Protecting the forest is a serious goal for much of Cambodia's Buddhist clergy. By assisting local temples to spread the message that forestry protection is an important part of local Buddhist practice, the theme gains considerable power in local communities.
- **Fuel-efficient stoves-** Simple clay fuel-efficient stoves can reduce fuel wood use by 20-30%. Approximately 500 stoves will be provided or sold at reduced cost annually to households in the project area.
- **Mosquito nets-** Mosquito nets for cattle have been used in other provinces to protect cattle from disease-carrying insects, while in Oddar Meanchey wood is burnt to create insect-repelling smoke. Introducing such nets will reduce the need for wood.
- **Agricultural Intensification-** Improved irrigation, training and inputs will increase agricultural productivity and thus decrease the need for new clearings. The System of Rice Intensification (SRI) method has allowed farmers to increase their yields by up to 41%, with higher yields being well maintained.
- **Natural Resource Management Projects-** Natural resource management projects, such as environmental education, community fisheries and community ecotourism, will be implemented to complement CF activities and support sustainable development.
- **NTFP Development-** Community enterprises for honey, rattan, resin, forest foods and other NTFPs provide alternative livelihoods and reinforce forest conservation efforts.
- **Fire prevention-** Fire prevention strategies were successfully piloted in early 2009. Communities select firewatchers, who locate fires and alert the community, and fire brigades to extinguish the fires. Firebreaks can be constructed in the areas of deciduous forest that are most susceptible to fire.

### Case: Sorng Rokavorn CF – Local respect helps maintain sanctity of the forest



At 18,164 hectares, Sorng Rokavorn CF is the largest CF in the project. Initiated in 2001 under the leadership of a local monk, the Venerable Bun Saluith, it is also one of the most effectively managed. The Venerable took his inspiration from his years in Thailand where Buddhist monks – who believe that “the forest is the house of the Buddha” – have played an important role in the environmental movement.

The Venerable and other monks from the pagoda began patrolling a block of forest to the southeast of the provincial capital, Samraong. The block – home to a number of rare wildlife species, including slow loris, fishing cat, gaur, sun bear and possibly tiger – was chosen primarily for its biodiversity value.

*Joint patrols of monks and local villagers have proved to be effective in controlling illegal logging by soldiers and businessmen. Critically, their stewardship of the area was respected by local communities, as well as by government officials who have been reluctant to invoke the displeasure of the monks.*

*Those interviewed credited their success to awareness raising, boundary demarcation, patrolling and, most importantly, to their good relationships with the villages located near the forest. An observer reported that:*

*“The monks have a unique approach to forest protection. They have set rules that there is to be no hunting or logging in the CF, but locals can gather NTFP and fish using traditional methods. When they encounter an offender, they use a ‘soft’ approach, asking them if they know the forest is protected, explaining to them if they don’t. They then ask them to sign a contract with their thumbprint, confirming they will never again conduct illegal activities in the CF. They confiscate their materials and take their photograph for their files. They have a three-strikes-you’re-out policy, but say they have never had a repeat offender and have never had to send anyone to court.”*

*The experience in Sorng Rokavorn demonstrates how successful forest management can be when it is linked to the local cultural context, in this case integrating Buddhist philosophy and the leadership of local monks, who continue to enjoy wide respect throughout rural Cambodia.*



# PROJECT BENEFITS

## Economic and Financial Benefits

Forecasting the economic or financial benefits that the project can be expected to generate over the next 30 years is a difficult process, complicated by numerous uncertainties affecting future revenue levels. Some of the unknowns include the amount of carbon stocks, the ability to control drivers of deforestation and the unpredictability of the global carbon markets.

With regards to the last item, when the project was first begun and the initial financial models were constructed, the price of carbon on the voluntary market was \$5 - 7 per metric ton. However, following the world economic downturn, carbon prices fell dramatically. The prevailing price of carbon will be among the more important project variables. Whether it is high or low when the project goes to market will be a major determinant in the amount of benefit the program generates for stakeholders.

Due to the inherent uncertainty involved in projecting revenues for such a novel, complex initiative, communication with stakeholders has been balanced to avoid raising expectations while also providing conservative estimates of potential revenue flows in order to motivate cooperation.

## Division of Project Income

The equitable sharing of project benefits was a major consideration in project design and development, and was endorsed in principle by all stakeholders. Even so, on the eve of the project, offering credits to the market entailed an unclear definition of the exact allocation of benefits and the mechanism for distributing them.

However, some clarity is provided by GD 699, as well as the FA's written statement that a minimum of 50% of net income after project costs will flow directly to local communities. The project design paper furthermore stipulates project revenues would support future operation of the initiative, affording it independence from donor funding after the initial start-up period.

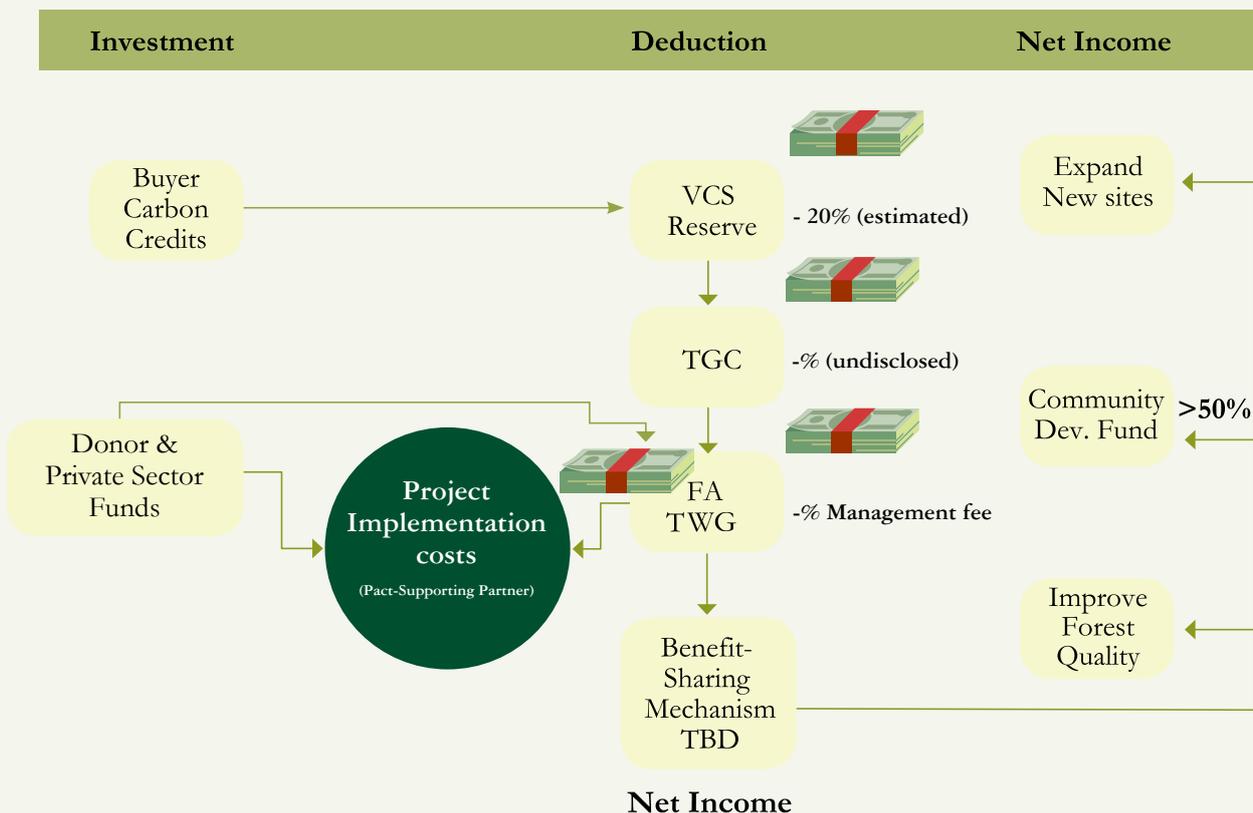
The generally accepted (if not ratified) guidelines indicate the project incomes will be divided as follows:

- 1 **A portion of credits deducted as reserves.** In order to eliminate the possibility for major under-delivery of credits, a reserve of 10-30% of revenues is set aside after each verification. The reserve rate, set by the VCS validation officer, is based on an assessment of the risk of under-delivery and the reserve credits will be delivered to a carbon registry for storage. Terra Global estimates that a 20% reserve rate will be set for the project. The credits will be deposited in the TZ 1 registry in New Zealand.
- 2 **A percentage of credits to Terra Global as compensation.** As mentioned, Terra Global will receive a percentage of the credits after reserves, based on their compensation agreement for carbon development and marketing services with the FA. The percentage of credits will be delivered to Terra Global at the time of verification over the first 20 years of the project.
- 3 **A percentage-calculated management fee.** The secretariat of the joint Technical Working Group on Forestry and Environment will have the task of managing the flow of funds to Pact, the implementing partner, at a level established by the annual budget and work-plan. A figure of 5% has been suggested as an appropriate amount for the working group's fee for on-going management.

- 4) **Payment for project costs.** Supporting partner Pact will, for at least the first five years of the project, coordinate and implement on-going project activities in the field. Pact will also continue to seek donor funds to supplement the running costs of the project so that maximum benefits may be delivered to communities. The expected level of annual project costs is approximately \$600,000.
- 5) **Net income (after project costs) delivered to communities.** GD No. 699 provides guidance on the use of net income. While the mechanism for delivering these benefits has yet to be confirmed, the three general priorities are to:
- Maximize benefits to communities for livelihood improvement, with the Terra Global-FA Agreement stating that at least 50% of net income will flow to local communities in the project areas;
  - Develop new REDD initiatives; and
  - Improve forest quality.

The flow chart below illustrates the proposed flow of revenues. When revenues begin to flow, Pact, Terra Global and the FA must agree on both the division of net income and the mechanism of distribution. The allocation and mechanism(s) for benefit sharing will require broad consensus and approval by the project working group, and possibly from higher levels of Government.

**PROPOSED REVENUE FLOWS – ODDAR MEANCHHEY CARBON PROJECT**



## Benefits to Communities and Households

Operating from the belief that the most effective stewards of Cambodia's forests are the communities that live in and near them, the project was designed so that these economically disadvantaged communities would also be the largest recipients of the project's benefits.

The project architects designed it so that the benefits to the communities would come in different forms. In addition to the funds that will return to the villages once the project is actively offering carbon credits to the voluntary markets are the following important benefits:

- 1] **Secure Tenure and Access to Resources.** A major, successful project objective was to secure forest tenure for the local communities in the project area. Clear long-term tenure for communities gives the villagers a genuine sense of ownership of the forest and therefore a greatly enhanced commitment to protection efforts (it also makes for a stronger submission to the CCB, which strongly supports social criteria).

Under the CF Agreement, these communities receive 15-year forest management rights, with the option to renew if the FA determines that the forests are being managed sustainably. Given the confluence of interests, the standard template for the CF Agreement in the 2006 CF Guidelines was purposely revised to include terms related to the REDD project.

In order that their "ownership" of the forest not be theoretical only, the agreements stipulate that timber harvesting is not forbidden but must be approved by the Community Forestry Management Committee beforehand. Thus, the community will maintain, at a minimum, its customary rights to harvest timber for house building, fence construction, etc.

- 2] **Financial Benefits.** FA Head H.E. Ty Sokhun agreed to include terms in the FA-Terra Global Agreement indicating that a minimum of 50% of the project's net income be directed to local communities. (Among other rationales, this division importantly satisfies the requirements of the CCB, as well as those of socially responsible investors, who will base their decision on whether or not to invest in part on the level of benefits to communities.)

However, the precise level of income this formulation will generate for the local communities will remain unclear until the credits are actually being exchanged for a given amount of money.

As was mentioned earlier in the text, the prevailing price of carbon will play an oversized role in the level of financial benefits generated by the project. When the project was in design phase, carbon sale prices ranged between \$5 - 7 per metric ton. If carbon trades at \$7 per metric ton by the year 11 peak, the minimum financial benefit for the local communities will be \$515,500. If, however, carbon is commanding \$5 per metric ton, the benefits will be almost halved, with the minimum financial benefit falling to \$282,500.

The difference illustrates how fluctuations in the price of carbon, as well as the metric tons generated by the project, will have a dramatic influence on the income generated. The figures also underscore that the project will only reach its peak earning potential by the 11th year, with many of the preceding years providing little or no net income for community development beyond support which is already part of the project strategy.

Interestingly, even though the CF Agreements state that communities will receive financial benefits generated from the sale of forest carbon, no communities have demanded to know their future payout. This fact strongly suggests that their most important motivation is the ability to safeguard their forests.



Women's participation in the project may be limited unless concerted efforts are made to ensure their participation and share of benefits.

- 3] **Employment Benefits.** The project will generate employment for the community, whereby communities are paid service providers to the project. For instance, ANR and enrichment planting activities will generate 20 incremental days of employment per household, a significant number for these communities, where many are presently forced to travel to Thailand to find work. Furthermore, additional employment opportunities will be generated through community-led activities in the areas of forest patrolling, fire control and project monitoring.
- 4] **Training and Capacity-Building.** The FA and Pact will both provide training and capacity building to CF members. These sessions will assist community members to improve their abilities in a wide range of income-generating activities, notably including the management of increasingly large portions of net carbon income.
- 5] **Social Benefits.** Among the social benefits the project will catalyze are the reinforcement of community governance structures, such as the CFMCs, village Sub-Committees and the CF Federation. All of these groups will receive support to organize and implement forest and project management activities.

In addition to helping alleviate adversarial relationships with authorities through the institution of an explicit framework for cooperation and increased engagement, instituting social capital in the villages helps the communities better address a wide range of village development challenges.

## Climate Benefits

The REDD mechanism was designed with a primary aim of helping address the issue of global climate change. If successful, the Oddar Meanchey project will have sequestered approximately 7.1 million metric tons of carbon by the end of its 30-year term. While the global climate benefits of this one project may at first seem underwhelming, the importance of the project is primarily to set a precedent for future up-scaling.

The Oddar Meanchey project is a critical first step in establishing a Community Forestry-REDD model that can be applied elsewhere in Cambodia – and the world – to achieve vastly more dramatic climate impacts.

# LESSONS LEARNED AND RECOMMENDATIONS FOR APPLICATION IN CAMBODIA AND INTERNATIONALLY

The implementation of the project in Oddar Meanchey has given rise to several lessons learned that can be applied to other REDD projects, both in Cambodia and globally. These lessons will become more important as REDD projects grow in number and importance. (Presently, REDD credits can only be sold on the voluntary market, but there has been a growing consensus since CoP 13 in Bali that REDD should be adopted under the UNFCCC post-2012, when the Kyoto Protocol regime comes to an end.)

To maximize the benefits of any REDD program, a number of important conceptual and technical issues should be addressed, with master plans fully considering the on-the-ground situation. As decision-makers are sometimes removed from the realities in developing country contexts, the following recommendations aim to provide some insight into how international REDD policy could best meet the complimentary goals of forest protection and improvement in the quality of life of forest-dependent communities.

- 1] **Formal feasibility studies-** While preliminary data was collected and analyzed, no formal feasibility study was conducted. Such a study, though increasing the project costs, would have alerted project developers to the risks faced during start-up. It is therefore recommended that at least a rudimentary feasibility study be conducted before project inception. Guidelines for the community consultation outlining the tools and criteria for securing free prior informed consent would also be useful.
- 2] **Division of benefits-** The Oddar Meanchey project was well underway before the question of future division of benefits was addressed. This lack of clarity from the outset led to significant delays and complications and impacted the development of the partnership between the various actors involved. It is therefore recommended that discussions and decisions on benefit sharing take place early on in project development, and that sufficient legal advice is available in developing the agreement. Furthermore, though this project appears to have been successful in securing substantial carbon income for local communities, it is recommended that the CCB and other standard-setting organizations make stronger policies to ensure that the stake of communities is appropriate and fair. Investors in carbon credits should also be encouraged to demand social accountability standards.
- 3] **Start-up funding and costing for in-country project development-** The Oddar Meanchey project faced significant challenges arising from the limitation of start-up funds to a 13-month budget of \$322,785. As a result, the implementing agencies could not maintain support to local communities until the project reached the market. Because of the urgent need for project funds, up-front payments will be sought, meaning that the carbon price may be lower than if payment occurred at the time of the first verification. It is therefore recommended that at least two years of start-up funding be in place before embarking on a Community Forestry/REDD initiative.

In order to make CF/REDD replicable and sustainable in the long term, it is important to minimize expenses, but also present a true accounting of how much it costs to properly implement a CF/REDD project. In the earlier stages, it would be wise to invest in building in-country capacity for all aspects of CF/REDD project development, which will eventually reduce the need to outsource activities to expensive service providers.

- 4] **A sub-national approach-** The Oddar Meanchey project is a sub-national project that may eventually be integrated into a national carbon accounting system, pending discussions currently taking place in Cambodia.

While national accounting is more effective at dealing with leakage (at least within national borders), sub-national projects have a number of advantages: 1) they require less initial investment and can be implemented more quickly (thereby providing on-the-ground experiences); 2) benefits are more likely to reach (and therefore incentivize) the local communities; and 3) the process of determining the project's human resource needs is more realistic.

A sub-national approach can also be used as an interim measure to achieve fast action, with subsequent incorporation into a national framework once the individual projects are operational. It is important that policy-makers consider the specific mechanisms for future integration of national and sub-national approaches.

- 5] **Government engagement-** High-level government engagement has proven to be of critical importance to the Oddar Meanchey project. It will be important to maintain good relationships with the Government over the long project period (30 years), as influential individuals come and go from their posts.
- 6] **Role of the supporting partner-** Questions have also arisen as to the appropriate role for the supporting partner (in this case, first CFI and then Pact). In many developing countries, it may make sense for the supporting partner to work on developing the capacity of the relevant government agencies during the initial years of a REDD project.

However, it is important to define and quantify the added value of involving an NGO. While NGOs have important skills and experience to contribute, some NGOs – like some government agencies – may view REDD as a potential “cash cow” that will allow them to support their activities. Clarity of expectations is important from the beginning. It is recommended that there be more consideration and open discussion on the role of the supporting partner and the ethics underlying the division of benefits.

- 7] **Technical Requirements-** The technical requirements for developing the Oddar Meanchey project, particularly for the VCS, were quite high and required specialist expertise. A total of 208 plot assessments, expensive satellite images and scientific computer modeling all proved necessary. Additionally, the project monitoring (with more than 60 indicators) will be extremely taxing for communities and project managers.

In developing countries such as Cambodia, human and financial resources to conduct this type of work are limited. It is therefore recommended to limit technical requirements, increase local capacity and find ways to make satellite images cheaper. More stringent requirements could be phased in as local skills increase. In the meantime, capacity assessments should be conducted and requirements should be better aligned with the existing capacity.



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