

Modeling the Way for Combating Land Degradation



Emerging 100 Best Practices in Sustainable Land Management in Cambodia

Introduction

The land degradation situation in Cambodia, manifested mainly by deforestation and soil erosion, requires a wide range of innovative solutions. This is partly because of the complex nature of the causes of land degradation (natural fertility limitations , poverty, governance, climate change etc). Also, limited government budgetary resources require us to develop and promote more cost effective solutions.

Cambodia is a signatory to the UN Convention to Combat Desertification (**UNCCD**). The Convention aims to address land degradation, worldwide. As a signatory, Cambodia is now completing a National Action Program (NAP) to combat desertification and promote Sustainable Land Management (SLM).

SLM is the collection of strategies and practices that allow us to use land based resources (forests, soils etc) today in ways that ensure the future generations can also fully use them. Examples are conservation agriculture, agro forestry and community forestry, etc.

In recent years, government and non government organizations have developed and tested various innovative SLM strategies on the ground. Many of these have been successful. Some are now considered as "best practices" in sustainable land management (SLM). Technologies and practices that have been proven to have worked over several years and validated by third parties, can be referred to as "best practices" "Best practices" does not mean that they are perfect. Sometime development workers refer to them as the " best as of the moment "

UNCCD defines best practices in sustainable land management as *"measures, methods or activities; that perform best or achieve the highest impact according to predefined criteria assessed through a validation process."*

Photo above: Three examples of best practices in sustainable land management (SLM) : a) Monks and communities protect 18, 000 hectares of forests in Oddar Meanchay (left photo by UNDP /Chansok Lay) ; b) In agriculture(top photo), multiple cropping with legumes promote soil fertility(photo by Seng Vang) ; c) the Local Government protects the needs of water users by regulating sand mining in Siem Reap, using the watershed planning approach(bottom photo by Phan Sothea).

The effort of the monks and communities under the Monk Community Forestry (MCF) Project in Oddar Meanchay (left photo) received a Global UN Equatorial Award. Buddhist Monks leaders lead by Venerable Bun Saluth (shown above in a ritual to protect forest wildlife) worked with 6 villages to protect their forests and sustain local forest based livelihoods. The communities now form part of a major Cambodian initiative for REDD (Reduced Emission from Deforestation and Degradation).

Five Themes

The Ministry of Agriculture, Forestry and Fisheries (MAFF) through its Sustainable Land Management Project and together with the UNDP and GEF, conducted the first of a series of search for emerging best practices in SLM, following UNCCD guidance. The MAFF also considered the guidelines and examples shared by the World Conservation Approaches and Technologies or WOCAT.

One hundred best practices in 5 themes were targeted. Information on best practices would be used to help formulate more effective programs for SLM. These include programs in sustainable agriculture and agro forestry, forest protection and forest regeneration. At the same time, farming communities, local governments can use this information directly as models for their own local initiatives.

Using UNCCD and WOCAT guidance, **MAFF** recognized two types of best practices: "technologies" and "approaches". Specific farming "techniques" (e.g. integrated farming systems etc) are examples of technologies. On the other hand, "approaches" can refer to "delivery systems" and "planning and facilitating tools" such as extension methods, efforts to improve security of tenure and the like.

MAFF, in consultation with **NGO partners** and other agencies identified an initial twenty Best Practices for each of the five themes, or a total of one hundred Best Practices. ***The Criteria for identifying the 100 practices included relevance to the key issues; the practice has been proven effective by different people for several years; and the extent to which the best practices are replicated by others.***

Best Practices in Agriculture

There are significant problems of soil erosion and low soil fertility problems in increasing areas of farm lands. **MAFF**-based researchers, in consultation with **NGO partners**, identified 20 technologies and approaches that address these issues. The types of SLM – oriented technologies include integrated farming systems, improved cropping practices and soil fertility enhancement measures. Examples of technologies include:

- Integrated farming systems on small farm lands, now practiced in 6 provinces
- Use of Biodigester and composting, now practiced by 6,400 users in 8 provinces
- Systems for Rice intensification (SR1), now practiced in at least 3,000 villages
- Model farm and home garden system to diversify lowland rice farm productivity
- Farmer based breeding of important traditional rice varieties adapting to climate change

Concurrently, MAFF also identified SLM Approaches in agriculture that improve the ability of government and NGO extension personnel and community leaders to:

MAFF, in consultation with NGO partners, identified 20 best practices (BP) in each the following five themes (See also separate articles for each):

1. Sustainable agriculture
2. Community forestry
3. Community fisheries
4. Community protected areas and
5. SLM oriented initiatives of Local authorities.

- Understand the agro ecological situation of local communities (Agro-Ecosystem Analysis);
- Identify and understand the types of soils (e.g.: Soils Technology Information Package);
- Improve extension through farmer to farmer exchange and farmer field schools (FFS)
- Maintain small irrigation systems through Farmer Water User Community (FWUC).
- Support the role of livestock in SLM through village animal health workers (VAHW)

Five of each of the 5 themes or a total of 25 best practices were further reviewed by MAFF researchers as well as partner researchers from MOE. This was also in consultation with partner NGOs, to the extent possible. The review studied the nature of the practices; their strengths and limitations; and the extent of their spread.

Best Practices in Community Forestry:

Community Forestry is a strategy that protect and regenerate forests, provide supplemental livelihoods and protect local watersheds which ultimately improve agriculture. Among the key challenges are the pace of legalization and declining NTFP stocks. **MAFF- FA** based researchers consulted with NGO partners and came up with 20 sites with best practices that helped address these issues.

Most of these practices in the 20 sites deal with community rules for forest use and protection and conflict resolution. Several sites supported the leadership role of women while others attribute their success partly though positive partnerships with local authorities. Others were able to add value to forest based livelihoods. Five examples are noteworthy:

- Forest protection efforts in Sre Khnong Commune in Kampot leading to better run off control and improved soil fertility
- Local government initiatives to protect the forests of Okreang Commune in Kratie
- Community effort to for value added NTFP livelihoods in Tum Ring Commune in Kampong Thom
- Forest regeneration and community forest planning in Banteay Sery District, Siem Reap leading to perceived improvement ground water table
- Co- leadership by women in Trapang Trav Commune in Udor Meanchy province

Best Practices in Community Fisheries:

Community fisheries are part of farming systems. Farmers are seasonal fishermen while flooded forests are sometimes devoted to agriculture during the dry months. Protection of flooded forests contributes to agricultural sustainability. Twenty best practices were identified by **MAFF – FiA** team in collaboration with NGO partners in the following categories:

- Strategies for minimizing the cutting of flooded forests such as improved smoked stoves in Kampong Chhnang province;
- Stabilizing fish access through dry season community fish refuge ponds such as those in Kampong Speu;
- Planning and mobilization tools such as action research applied in Stung Treng;
- Micro livelihood loans from a community revolving fund to start up a crab bank as in Kep
- Starting a revolving fund for community fishers as applied in Siem Reap

Best Practices in Community Protected Areas:

Protected areas (terrestrial and coastal) provide ecological services for agriculture. Protected areas help protect watersheds for agricultural communities and are important for biodiversity protection including agro – biodiversity. The **MAFF** collaborated with partners at the Ministry of Environment (**MOE**), to identify twenty sites with best practices. Of these, 5 sites chosen were further documented because of their potential to be models of CPA:

- NTFP enhancement and local authority engagement in Prek Thnot commune, Kampong Speu;
- Community ecotourism and water source development in Chambok, Kampong Speu;
- Protecting NTFP based livelihoods in Romany Commune, Preah Vihear;
- Multi sectoral collaboration to protect the wildlife for ecotourism and livelihood improvement, Pring Thom Commune, Preah Vihear
- Mangrove reforestation through eco-tourism in Peam Krasbo Commune, Koh Kong

Potential Best Practices by Local Authorities in Land Management

Local authorities are mandated to protect local environments. Often, they lack knowledge and skills to implement mandates. Lack of clarity of some policies also discourages action by local authorities.

Twenty cases were identified as potential best practices that try to overcome the constraints cited above. Some of the 20 deal with preparation of environmentally sound land use plans. They are currently being validated. Many deal with direct measures by communes to protect natural resources or indirect measures such as supporting community forestry and community fisheries. Several are working on improving land tenure security of farmers. Five notable examples from a candidate list of 20 include:

- Use of the watershed approach in Siem Reap to govern land use such as sand mining
- Coming up with creative solutions to land conflicts as in Sna Ansa, Pursat
- Establishment of social land concessions as in Kratie
- Direct conservation of sugar palm trees as in Tram Kok District, Takeo
- Promoting energy efficient stoves in livelihood activities as in Thnot Commune Pursat

Identification of 100 Best Practices in Sustainable Land Management is part of Cambodia's contributions to The UN Convention to Combat Desertification or UNCCD.

<http://www.unccd.int/>



Cambodia will also benefit from the best practices being shared by other countries under this convention. For more information on global best practices, visit the website of the World Overview of Conservation Approaches and Technologies or WOCAT <http://www.wocat.net/>.



Common features of the best practices

There are common features among the 5 different sets of Best Practices. For example, a transparent and participatory process can encourage communities to invest time and resources for SLM. Government agencies who transform themselves into facilitators to promote community action tend to be more successful in their work. Community knowledge sharing as is an effective form of technology transfer to spread good practices.

In terms of landscape level action, communities who engage local authorities on interests related to natural resource management and protection tend to more successful. . Conflicting land development priorities are dominant constraints. The commune's interest to invest SLM is being challenged because of uncertainties in land allocation policies.

Even though these are small amounts, commune investment funds can help sustain long term SLM initiatives. Also, provincial governments can help resolve competing land use decisions and the need to invest in systematic documentation and sharing of knowledge.

More information on Best Practices

For more information, please see also separate articles for each of the 5 Themes. It may be noted that the 100 Best Practices cited here is an initial list only. Many other emerging best practices facilitated by both government and non government organizations are waiting to be studied and documented. Other institutions are also involved in identifying best practices. These are also cited in the 5 separate articles.

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Significance of Best practices to the National Policies

If the enabling environment would be provided, more communities, communes as well as field offices of government units would be able to adapt these best practices in their own situations.

These technologies and approaches can be promoted in wide areas (in most communes) and at lower costs to government.

The National Action Program to combat Desertification proposes specific public investments that would stimulate the sustainability and spread of these best practices.

