

## Technology Fact Sheet for Mitigation

Technology Name:	Sustainable Community Forest Management (SCFM) <sup>i</sup>
<i>Introduction</i>	
<p>Lao People’s Democratic Republic (Lao PDR) or Laos is a landlocked country, located in the central heart of the Southeast Asia with a total land area of 236,800 square kilometres. About 80% of the total population usually live in the rural areas and depend heavily on forests for their basic needs, such as firewood, timber, fodder and pasture, foods medicines, water for drinking and irrigations. Natural forest management and use are recognized that local forest villagers can also be the resource managers as they live near by the resources and they will have more relationship forests in terms of benefits and participation forest management. Generally, there are many different definitions of community based forest management by different researchers across the world, one definition given Khamphay Minivong and Sopathilath (2007) is commonly used, which states that community based forest management is the basic of community forest science at local levels, as well as it would be an initiative of sustainable community forest management.</p> <p>When talking about sustainable community forest management, it would be discussed for the relationship between people and natural resources for both biodiversity conservation and sustainable livelihoods. Sustainable Community Forest Management is under a detailed plan developed and agreed to by local communities playing a central with all concerned stakeholders to develop the natural forest products to meet with the present needs without compromising the ability of future generations to meet their own needs (Maureen H. McDonough et al. 2002). The approach of community based, which is the communities managing the resources, have the legal rights, the local institutions, and the economic incentives to take substantial responsibility for sustained use of these resources. Under natural resource management plans, communities become the primary implementers, assisted and monitored by technical services (European union project et al. 2004). Others definition a Community Forest is “any area of Government Reserved Forest designated for management by a local community”. Community Forestry is therefore the control and management of a forest by local forest users as part of their livelihoods system.</p> <p>Sustainable Community Forest Management (SCFM) is very important for the natural resources management, biodiversity conservation and securing the livelihood of stakeholders, including poor and ethnic minority groups. This is because forests are mainly used for households of local groups, who live nearby forest. They depend mainly for the natural forest for their livelihood development, medicine, construction and income; therefore, it is necessary to involve local community in the process of natural forest management and sustainable in use.</p>	
<i>Technology characteristics</i>	
<p>There are many different characteristics of sustainable community forest management (SCFM) based on the styles and tools of participation process and management planning as well as the scale-site and ownership of the site. There is a case study in Philippines classified the SCFM in three categories based upon the basic of</p>	

managements (Lucrecio L. Rebugio et al. 2010). 1). Self-initiated sites: this kind of category consists of indigenous management systems predating any SCFM interventions in the area. It means that this type of SCFM is developed privately at household level with any local government and stakeholder involvement in the process. 2). locally assisted site: This covers site-specific SCFM initiatives in which the development of SCFM efforts could be largely attributed to partnership with external entities, sponsors or facilitators in the process. 3). National programs: This category included all the SCFM sites under the nine national programs of the national level of SCFM development program.

In Laos, the sustainable community forest management is classified for 7 levels of participations based on the process of SCFM planning and management (Khamphay Minivong and Sophathilath 2007): 1). passive participation, 2). participation in information giving, 3). participation by consultation, 4). participation for material incentives, 5). functional participation, 6). interactive participation and 7). Self - mobilization.

In Thailand, the characteristics of SCFM are defined by different local community forest and the local ethnic minority of the region, Table 1:

Region	Characteristics
North	The area is largely mountainous and inhabited by various ethnic minorities. Most community forests in the North are original forests and managed through traditional beliefs and cultures.
Northeast	Villagers conserve patches of forest at the edge of their cultivated fields to provide source of food and medical plants
West	This area is inhabited mostly by the Karen, who have a long tradition of forest care
East	Most community forests are mangroves. They were set up when forest degradation through commercial logging activities and farming
Central Plain	The region, the community forest are managed based on traditional belief
South	The community forest in this region is conserved of original forest trees, left growing intermixed with cultivated practicing at the family level.

Source: (Sritanatorn 2009)

***Potential application in the country***

According to the previous practiced, achievements, lessons-learned and as well as some experiences shared from others neighboring countries, we can recognize that there are many reasons potential application for SCFM in Laos, such as lesser of cost for forest management and silviculture options, enhancing not just only forest products, but included of plant diversity in the area, a clear of forestry law, regulation supporting from the government, and final potential application of SCFM is the Lao local people, who have already the background and traditional knowledge of natural forest management.

### **Cost for forest management and enhancing plant diversity in the area**

One of the most important reasons for application SCFM in the country is to reduce forest restoration costs. As many practices at the past, the costs of SCFM activities are much lower than forest plantation. It is only application for SCFM in the country to expedite (“speed up”) forest restoration based on the governmental restoration forest 70 % in 2020. SCFM takes advantage of wild seedlings already growing in an area. Root systems of these seedlings are already in place. Therefore, the trees can grow rapidly when the area is managed competition is removed or reduced by silvicultural practices of SCFM in the villages. A third important reason for applying SCFM is to enhance plant diversity. Naturally-regenerated vegetation will almost always comprise a mixture of species. Therefore, SCFM produces a more diverse and multi-layered vegetative cover than plantation reforestation. This diversity helps ensure environmental stability and is very desirable in areas intended for watersheds (pagasa 2010).

### **Potential applicability for SCFM based on law and regulation supporting**

Sustainable community forest management (SCFM) is based upon the activity of land use planning and land allocation (LUP) in villages. In most villages where LUP is completed, additional rules and obligations on the utilization of land, including forest resources are agreed upon in land use agreement between the district and the village authorities is formed. In most cases, the participation SCFM regulation for natural forest resource management and sustainable use are already formed based on the general forestry law and regulation for the Lao PDR. Community involvement in sustainable forest management has been recognized and strongly encouraged by the Government of Lao PDR since the first National Forestry Conference in 1989, emphasizing that the maintenance of healthy and productive forests is central to the rural livelihoods and reduction poverty. This is in order to: (i) to preserve, improve, and increase biological capacity of the existing forests by improving existing systems of management and protection; (ii) to rationally use forests and associated\ resources to improve the country’s economy and increase income for local poor; and (iii) to link forest rehabilitation, preservation and expansion with food security, commodity production and creation of permanent economic activities for upland populations. The policy directions were then backed up by the National Forestry Action Plan (NFAP) which was developed in 1990 and approved by GoL in 1991. In addition, a number of legal instruments were developed and promulgated to form a legal framework for the implementation of the programs identified in NFAP and support community participation in forest management. The most relevant of these instruments regarding community participation, include the Council of Minister’s Decree No. 117 (1989); Prime Minister’s Decree No. 169 (1993); Prime Minister’s Decree No. 186 (1994); and the Forestry Law (1996). Provisions of these legal instruments were interpreted into a number of ministerial instructions, orders, and guidelines (Khamphay Minivong and Sophathilath 2007).

### **Potential application based on Lao traditional natural forest management**

Basically Lao people formerly have a good system of traditional ownership of the land and forest resources within each village boundaries. The government legally recognizes using rights for local people based on their traditions within the village boundary. Village authorities have the right and duty to form local rules for

specific traditions and customary use of the natural forest resources, and as well as to regulate land use in the village boundary. However, the past practices of natural forest use and management was implemented individually or house based, without a proper sustainable plan management and use for CBFM, as well as lacking of collaboration external sectors to support in terms of forest management techniques. However, after getting experiences from the previous practices, it has been realized that SCFM has a great potential in the future for the government to continue supporting this kind of activity for three main potential reasons, 1). Local villagers, who live closer in the forest and they should have the right to sustainable use and management their own forest, 2). The local people should more involve in the process of SCFM and have rights to share for the forest management benefits, such as fuel wood, wood for house construction and income from Non-timber forest products, etc. The use of those village forests was based on villager's decisions. Most forests were distinguished according to simple classifications, such as village production forest. In addition, the local people have already basic knowledge of traditional natural forest management, example village protection forest, village conservation forest (spirit forest) and Cemetery forest.

#### ***Status of technology in the country***

During the last decade, the SCFM has been organized widely in Laos (northern, central and southern parts). However, the processes are involved mainly for international development organizations, supporting both fund and techniques. Lao-Swedish Forestry Program (LSFP) (1996-2001) was the first project of village forestry in the southern part of Laos. It tried to develop specific management plan for forests outside state production forests in one village from the technical guidance of RECOFTC, 1999. During the planning process, the assessment for forest management and use was conducted in a participatory way with the local villagers. The assessment identified villagers' problems, natural resource situation and potential development in the village. The community based forest management committee/group was formed, which facilitated by the DAFO, PAFO and LSFP consultants. However, the village forest management plan was not completed as the activities were developed toward the end of the project period.

In the northern part of Laos, in Xayabouly province was also carried the activity of community based natural resource management by (FOMACOP, NAFRI-IUCN) during 2002-2004. The model focused of village land use type-wise management planning. Implementing was facilitated by outside consultants developing community natural resource management and related mechanisms and services in all aspects. The model also used participatory tool for the process of forest management plan and multiple forest resource use in sustainable ways in order to improve villagers' income and livelihoods (Khamphay Minivong and Sophathilath 2007). Unfortunately, a full testing of the model was terminated after the ending of the project in 2004. However, the model and methodology developed from the project was continued to use by CARE other projects.

In Louangnamtha Province, northern part of Laos, there was another development project called (GTZ) or rural development in mountainous areas program also implemented of village forestry, Non-timber forest products (NTFP) and nature fish management two Districts, Sing and Nalae during 2004-2007. The approach was based on land use planning and land allocation (LUP/LA) as the starting point of community

based natural resource management (CBNRM). The model development planning and process used both Participatory Rural Appraisal (PRA) and Rapid Rural appraisal (RRA) tools. The process implementing consisted of over 5 steps: 1) Village orientation for the concept of SCFM, community forestry group/committee group forming in the village, 2) Forest boundary delineation based on the land use planning and land allocation, implementing for forest inventory in the area, 3) Participation for sustainable forest management planning by the sustainable community forest management groups, facilitating from outside national and international consultants, 4) setting up participation rule and regulation in the community for SCFM harvesting and use proving by the District of Agriculture and forest office, and 5) Participation SCFM evaluation and monitoring (Bounnyong Thongmalay and Phongxiong Wanneng 2007).

***Benefits to Economic development***

Under the CBFM program, socio-economic improvement was realised through provision of temporary employment and additional income, but to a limited number of participants. In a number of cases, these benefits were not sustained after the project completion. One of the challenges for CBFM, therefore, is to sustain and spread the benefits to a greater number of poor people in the forest communities. There is a need to further develop viable and resilient enterprise and other economic opportunities, particularly for forest-dependent communities

Benefits of Community Based Tourism	
Development Area	Potential Development Benefits
<b>Economic</b>	Sustainable and independent source of funds for community development Creates employment in tourism Increases household income Embeds development in local culture
<b>Educational</b>	Promotes the acquisition of new job skills Creates new professions in the village Imparts and encourages use of new knowledge in the village Cross-fertilisation of ideas with other cultures - promotes respect Fosters and promotes respect for local knowledge and skills
<b>Social</b>	Raises quality of life Promotes gender and age equality Builds capacity for community management organizations Fosters cultural exchange
<b>Health</b>	Promotes good hygiene Increase in and diversification of food production for tourists will improve nutritional status
<b>Environmental</b>	Promotes environmental responsibility Raises awareness of the need for conservation for tourists & villagers Promotes management of waste disposal



(Source: Khamphay Minivong and Sophathilath 2007)

### *Climate change mitigation potential*

During the early 1990s, Laos has been reformed for policy and regulation for implementing of land use planning and land allocation, which recognized the rights accessing to local people to gain benefits and manage the natural resources, where they live nearby in sustainable ways (Khamphay Minivong and Sophathilath 2007). Over the last decade, Laos has implemented for sustainable community forest management, which was supported mainly from international organizations (development projects) and the local governmental organizations, especially District of Agriculture and Forest Office (DAFO), Provincial Agriculture and Forest Office (PAFO). A case study of SCFM, which practiced by Rural Development in Mountainous Areas Programme (GTZ) in Lounagnamtha Province, Northern part of Laos, implemented for the SCFM in five main stages: 1) Village orientation for the concept of SCFM, community forestry group/committee group forming in the village, 2) Forest boundary delineation based on the land use planning and land allocation, implementing for forest inventory in the area, 3) Participation for sustainable forest management planning by the sustainable community forest management groups, facilitating from outside national and international consultants, 4) setting up participation rule and regulation in the community for SCFM harvesting and use proving by the District of Agriculture and forest office, and 5) Participation SCFM evaluation and monitoring (Bounnyong Thongmalay and Phongxieng Wanneng 2007).

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<sup>i</sup> **This fact sheet has been extracted from TNA Report – Technology Needs Assessment Reports For Climate Change Mitigation – Laos. You can access the complete report from the TNA project website <http://tech-action.org/>**