Field Demonstration Model
Community-based Forest Management (CBFM)
Hoa Hop commune, Minh Hoa district

1. Background

The project on Sustainable Management of Natural Resources in Central Vietnam (SMNR-CV) pursues as its **overall objective** that *the stakeholders in the project region manage their natural resources in a sustainable way*. The implementation of project interventions is structured into three work areas:

- Participatory Planning (LED / SEDP/CDP)
- Participatory Agricultural Extension (PAEM) and Value Chain Promotion
- **Community Forestry** (FPDR, PLUP-FLA, CBFM)

In the forestry area, the impact indicator to measure the achievement of the project objective comprises three **sub-indicators**, each of which contains an institutional aspect (issuance of provincial guidelines) and an aspect of widespread application of the innovative methods introduced:

> *In Quang Binh, improved provincial guidelines are issued*
> - *on forest protection (until 12/2007),*
> - *on forest land allocation (until 06/2008) and*
> - *on community forestry (until 06/2009),*
>
> *and are applied in all rural districts by the relevant stakeholders in the protection and sustainable management of forest resources.*

In the project implementation strategy, the three sub-indicators represent a sequence of tasks in the sense that guidelines for forest protection have to be in place and applied before forest land should be allocated to individual households or user groups. Likewise, community forestry only makes sense after households and user groups have received secure land titles.

In early 2008, the method of "Forest protection and development regulations" (FPDR) was issued as the official provincial guideline on forest protection and development, and has since then strongly influenced the revision of the national legislation (Circular 70 of MARD) on this issue. As of November 2008, the project manual on "Participatory land use planning and forest land allocation" (PLUP-FLA) is about to be issued as the official guidelines on Forest Land Allocation in Quang Binh. Further work on the project manual on planning and implementation of "**Community-based Forest Management**" (CBFM) is under way.

In parallel, the application of FPDR is underway in an increasing number of communes in all districts. Since the guidelines on Forest Land Allocation are not yet official, application in the field is slow and follows conventional procedures or is promoted as PLUP-FLA on a pilot basis in selected communes. As expected, the process of introducing CBFM is the longest and most complex. To speed up this process, the SMNR-CV project has initiated and supported, as from 2005, the establishment of **field demonstration models on CBFM** application in four of its pilot communes, one of which is located in Hoa Hop commune, Minh Hoa district.

2. Status of Forest Development before Intervention

The results of the baseline survey of the SMNR-CV in 2004 indicated that in all pilot communes the management of forest land distributed to individual households was still very unsystematic, not planned and not sustainable. Forest protection regulations had only been formally introduced (or imposed), but mostly as a blueprint without the participation of forest holders. Consequently, the regulations were not respected and followed (e.g. free roaming

cattle destroying plantations); violations were not sanctioned (e.g. no compensation for the damage caused by the neighbor's cattle). In Hoa Hop, as in other communes, forest land was allocated to individual households only (not user groups), following mainly the principle of social equity (small pieces of land with equal forest potential given to all). Thus, the official FLA process resulted in most people having tiny plots of forest land and/or plots that were very narrow (10 – 15 m) and very long (2 – 3 km), rendering effective forest management next to impossible.

In addition, "red book" titles were often issued for forest plots which had not been demarcated in the field, the new owner not knowing the exact location or boundaries. The resulting potential conflict with the new owners of neighboring plots contributed to a lack of investments into the new property (labor for thinning and protecting natural forests, capital for enrichment planting or plantations). In the same sense, the subsidies expected by the new forest owners from national targeted programs (e.g. 327 or 661 providing seedlings for free or for a very low nominal price) hindered own investments into forest development.

3. Intervention Strategy

The project's pilot communes for community forestry were chosen mainly on the criteria of having reasonable forest stands (so that later there would be a reasonable benefit to be shared among users) and being relatively easy to access (so that other farmers could go to, see for themselves in the field and learn for their own application).

In Hoa Hop commune, the site of the CBFM demonstration model was specifically chosen for reasons of suitable terrain (model can be seen from a distance) and the fact that three households could be identified with neighboring forest plots of reasonable size, shape and forest stands. These households also shared similar interests in forest management and investments and volunteered to cooperate in the management of the CBFM model, comprising their combined three forest plots, and could thus be formed into a small "forest user group". The total forest area for the demonstration model of the group was about 28 ha, the largest part consisting of natural forest (19.5 ha), a smaller part regenerating forest (classified as IIa, IIb and IIIa1), the rest barren land. On a very small scale, all three members of the user group had started their own investments into forestry, however, with insufficient technical skills and knowledge and subsequent very slow progress.

Apart from the specific project support for this user group, project interventions were to cover the whole population (all forest owners) in the commune in all steps of forest development, including a thorough and participatory revision of forest protection regulations, the improvement of the FLA process (e.g. demarcation in the field, mediating land conflicts, formation of user groups) and finally the preparation of forest management plans on all levels (user groups, village, commune). – Regular meetings were organized in every village of the commune to inform about most recent legal documents and forest-related policies, to monitor the implementation of protection regulations as well as to monitor the implementation of forest management plans. Several rounds of trainings on silviculture techniques contributed to capacity development and empowerment of the user groups to implement the management plans.

4. Design and Implementation of the CBFM Model

The selection of the households finally participating in the CBFM model and the choice for the specific site were the outcome of several stakeholder workshops in the commune. Likewise the design of the model is the outcome of a participatory process with forest small holders in the commune, the specific user group (the "model owners"), and with project staff acting as technical advisors and facilitators. Based on the current forest status of the combined plot, on the demands, knowledge and skills of the user group's members, a design was developed which included the elements: (1) protection of natural forest; (2) forest

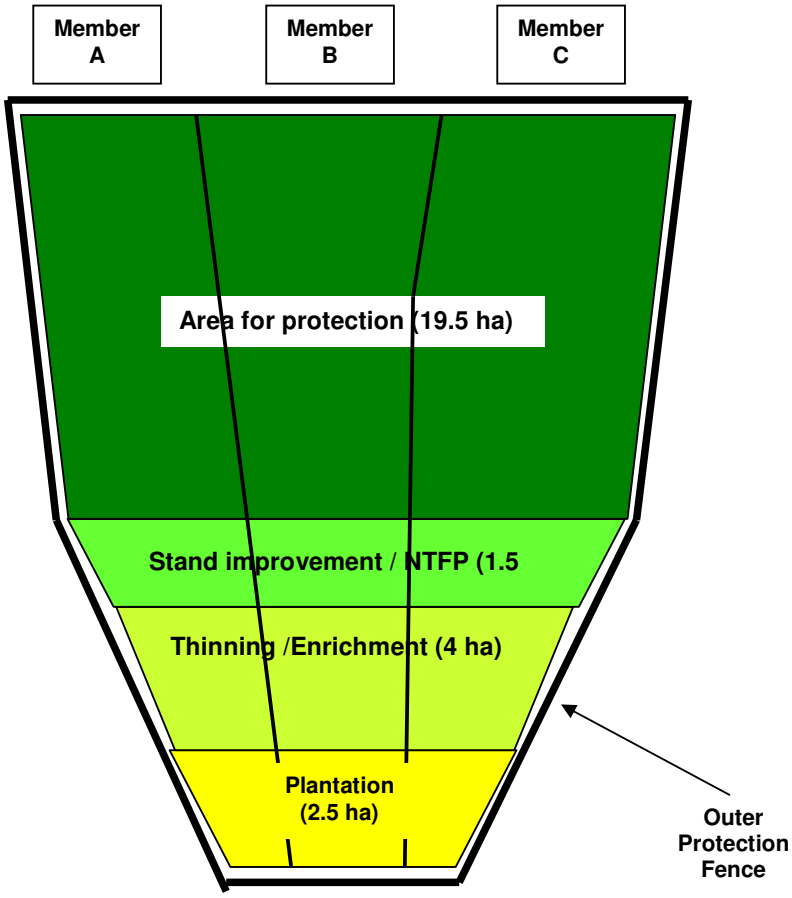
enrichment using indigenous tree species; (3) introduction of non-timber forest products (NTFP) such as rattan, etc.; (3) forest plantation on barren land.

The total area of the group's model of 28 ha was designed for four different forms of forest use:

1) Area for new forest plantation: 2.5 ha (Acacia),
2) Area for forest thinning, improvement and enrichment: 4 ha with steps of clearing vegetation, thinning out not useful trees, intercropping with indigenous trees with high economic value and effectiveness for biodiversity such as *Tram huong* (Aquilaria crassna), *Lat Hoa* (chukrasia tabularis A.Russ), *Hue* (dalbegia tonkinesis),
3) Area for non-timber forest products (NTFP): 1.5 ha by planting varieties of rattan under the canopy of the forest.
4) Area for protection of natural forest: 19.5 ha.

In a simplified schematic way, the following map illustrates the layout of the model. In the reality of the terrain, the plantation area is at the foot of a hill and nearest to the settlement area (easier access and better protection). The protection area stretches up-hill.

Schematic Map of CBFM Model



The design phase also included, as the last step, the elaboration of annual operation plans. The implementation of these plans was supported by the project in the form of a series of trainings and, to a small extent, by financial support.

Training course on silviculture techniques CBFM

- In 2005 developed plan and implemented new model, including training course on silviculture techniques, supported seedlings and partly labour cost for implementing the model.
- In 2006 and 2007, supported forest tending, such as: planted extra seedlings, restored boundaries and protective fence.
- In 2008 upgrading of the model by inter-planting indigenous trees which are to replace Acacia as from 2010 (harvest), technical advice, continuous coaching of the group also in organization issues.

5. Results of model implementation

After 3 years of implementation, the CBFM model has shown rather positive results for all four different forms of forest use.

The area for new forest **plantation** using varieties of Acacia has developed very well; trees are above 4m high and develop strongly without being affected by pests and diseases. The varieties of Acacia have a short circle (6 – 7 years), which helps the user-group to improve household incomes and reinvest into forest development using other indigenous trees with a longer production cycle. It is estimated that the area of planted forest will be ready for harvest by 2010 with a yield of timber of up to 120m^3.

Acacia in Hoa Hop Modell, 4 years

***May Tat* Rattan under canopy, 3 years**

The area for **stand improvement with non-timber forest products**: The NTFPs selected for the model are varieties of rattan, especially *May tat* (*Calamus tetradactylus Hance*). After 3 years of plantation, it becomes evident that rattan is particularly suitable for the micro-climatic conditions and the geographical formation of the model, when under the canopy of the current forest. So far, rattan develops strongly and has has grown to an average height of 2m.

For the area for **enrichment planting with indigenous trees,** the following species of indigenous trees were selected for the model: *Tram huong* (*Aquilaria crassna*), *Lat Hoa* (*chukrasia tabularis A.Russ*), *Hue* (*dalbegia tonkinesis*). Through piloting the plantation of these indigenous trees, conditions of the model is rather suitable with selected indigenous trees. However, some indigenous trees are usually damaged by pests. In order to solve the problem, the model is usually tended, protected and planted with additional trees. So far, indigenous trees in the model develop rather well. In this area, silviculture techniques are apllied including selected thinning of non-useful trees, clearing shrubs and bushes to have space for useful trees to develop, and planting extra indigenous trees under the canopy of the forest. After 3 years of implementation, the application of silviculture techniques in forest thinning and enrichment of the households has been very good and the households themselves have been proactive in expanding the area of the model.

After implementing **forest protection** activities in the area of natural forest, members of the user group became more aware of the economic value. Consequently, they started safe-guarding their forest against illegal exploitation of other local people and notably against the penetration of free roaming cattle into the model. After several of such incidents in the beginning, the damage of which had to be compensated for, no further such penetration was reported. The natural forest is on a satisfactory way to regeneration.

6. Impacts so far

The initial achievements of the CBFM model indicate positive impacts on capacity development of the members of the user group directly involved in the model, but also replications effects on other forest small holders and user groups in the commune. Among others, they have acquired and apply improved silviculture techniques, have successfully developed their own forest protection and development plans, and have been proactive in investing more into sustainable forest management. Most importantly, the mind set has changed with the awareness that forest is a valuable natural resource, which – if used in a sustainable way – can contribute significantly and on the long term to household incomes.

Although tangible financial impacts from the new plantation areas can only be realized after a relatively long period of time (after 01 forest growth circle), additional forest activities may provide more short term returns, as demonstrated by the NTFPs pilot. Having learned about forest-related policies and regulations, enforcing their self-determined protection regulations, forest users are also more confident of "doing the right thing", which in turn encourages them to invest more with their own means (labor in forest tending, and capital from bank loans).

The introduction of indigenous tree species and the better protection and management of natural forests have contributed to these forests regenerating, thus enriching biodiversity.

In view of an increasing number of other forest user groups in Hoa Hop commune copying and replicating the model, the prospects for sustainability for the period after the support by the project are indeed rather good.

7. Lessons Learnt

Through implementing, monitoring and evaluating the model, some initial lessons learnt are:

- In establishing forest user-groups, it is best to gather households similar interests in forest protection and development, as for example: interest in tree nurseries, in planting NTFPs, in forest plantation or in forest enrichment. Thus, this will help to create a close relationship among households while implementing forest management and utilization as well as in sharing benefits later on.

- Financial support for model implementation must be limited. Models which are too sophisticated and/or too expensive might look nice, but can and will not be replicated by other small holders with their own means and knowledge.

- Taking the initially very low level of skills and technical knowledge, the CBFB model must be accompanied by as many trainings in siliviculture techniques as possible. Training is to take place directly in the field where the usefulness becomes evident and immediate application is possible. Trainings must be repeated over a longer period to take effect.

- The organization of regular farmer-to farmer visits to disseminate the concept and achievements of the model is equally important to up-scale the impact of the model. Initial reservations of more conservative famers can better be overcome by their own peers than by staff from extension services or development projects.