



**Project "Demonstration of capacity building
of forest restoration and sustainable forest
management in Vietnam"**



PROGRESS REPORT

**Project: "Demonstration of capacity building of
forest restoration and sustainable forest
management in Vietnam"**

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Vietnam APFNet Focal Point



Project "Demonstration of capacity building
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General information

- Grant receipt: Ministry of Agriculture & Rural Development, Viet Nam
- Implementing Organization: Sub-Department of Forestry of Phu Tho province
- Technical assistance partner: Forest Science Institute of Vietnam
- Sponsor: APFNet
- Project duration: 2 years (started August 2010)
- Project areas: Phu Tho province
- Total budget: 567,000 USD (in which APFNet supports 499,750 USD)



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Project's objectives

Long term goals:

- ❑ Contribute to improve livelihood of local communities;
- ❑ Enhance ecological services including carbon sequestration, catchment and soil protection, biodiversity conservation by minimizing forest degradation and sustainable forest management, contributing on REDD+ implementation .

Short term objectives:

- Increase forest quality and diversify forest products through planting NTFP species in the degraded natural forests
- Increase long term economic values of natural forests through timber composition improvement
- Improve understanding of local authorities and farmers on forest restoration and management and NTFP planting and processing



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Overall approach

- ❑ Intergated project approaches: rural participatory appraisal, natural resources & socio-economic assessment to identify local needs.
- ❑ Harmonizing local needs & professional expertise to develop appropriate technical measures
- ❑ Developing micro institutional framework (village level) to enhance application of good practices in forest restoration & sustainable forest management



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Technical approach

Applying best practices on forest restoration & sustainable forest management of Vietnam as well as elsewhere:

- Enrichment planting techniques by native broadleaf timber species
- NTFP planting techniques, particularly under forest canopy
- Silvicultural measures on improvement thinning and tree composition adjustment techniques



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Community based forestry management

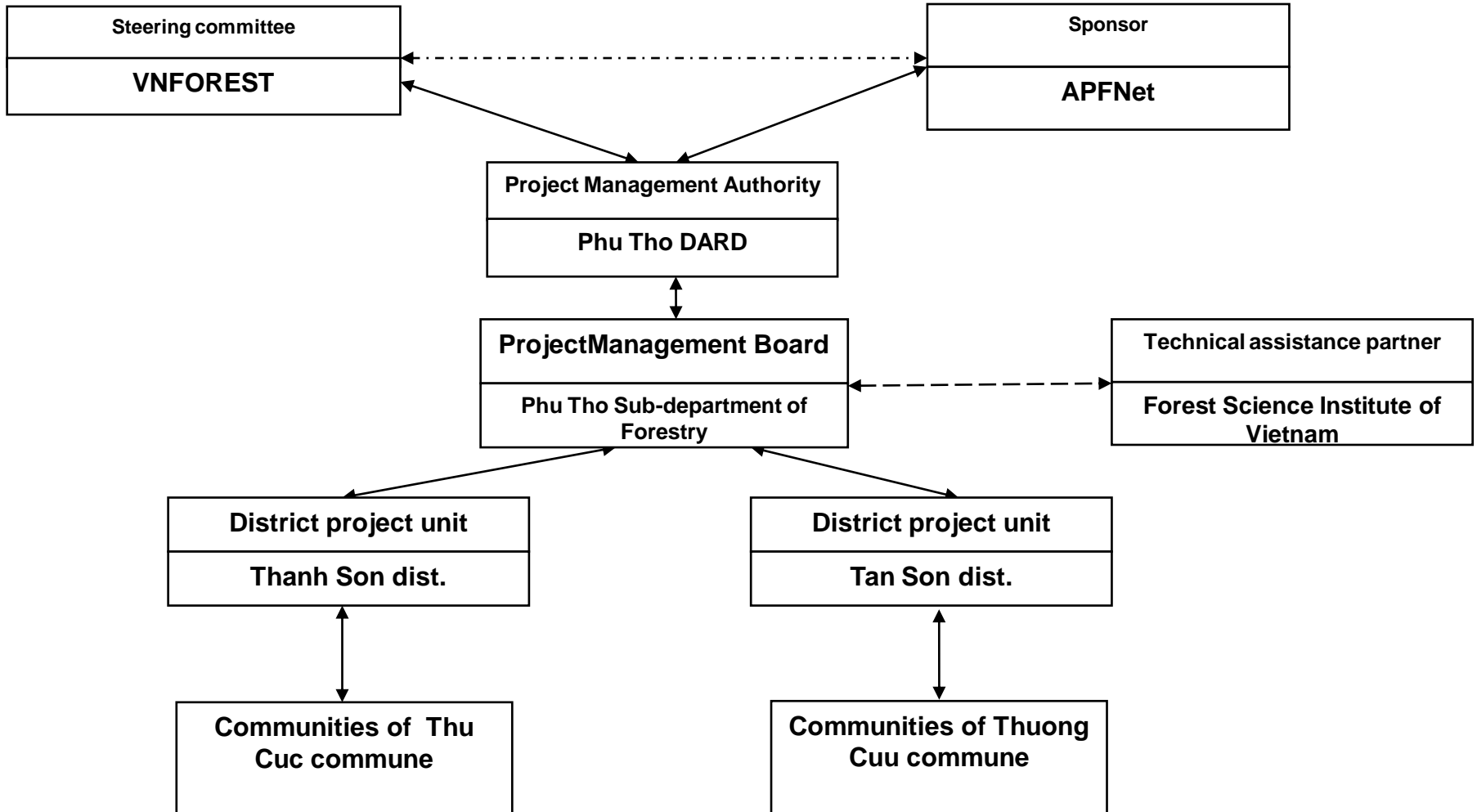
Applying CFM approach which has been extensively developed in Vietnam



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Implementation structure





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Implementation progress – Baseline inventory

- ❑ Forest Resources inventories for two project's communes; Detail pilot model survey → degraded poor natural forests with few commercial trees



Degraded natural forest of project communes



Forest inventory



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Implementation progress – Baseline inventory

- ❑ Socio-economic assessment of two project communes → poverty ethnic minority groups; un-developed agricultural crop systems
- ❑ Evaluation village's shortage & needs by PRA approach → poverty & land shortage for crops & tree planting



Selecting species for pilot model by PRA approach

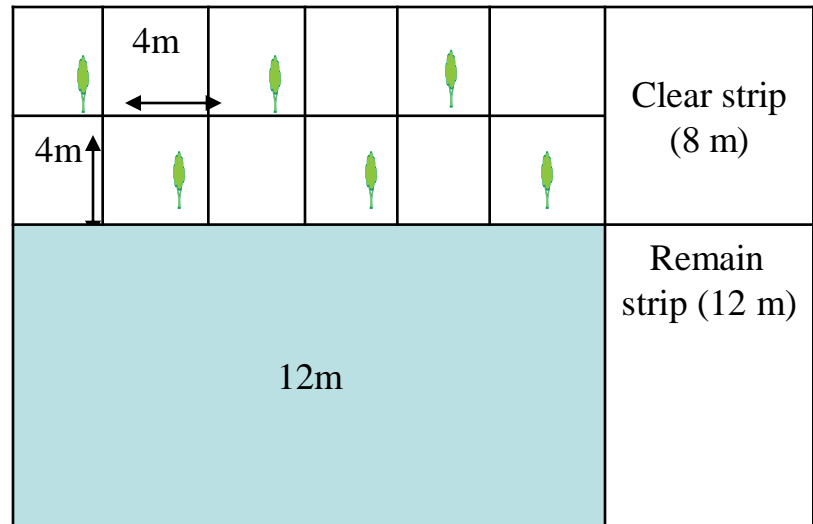


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Implementation progress – Pilot model

- ❑ Forest areas (100 ha) for pilot models were intensively surveyed → few commercial tree species in existing regenerating natural forests
- ❑ Pilot model design developed in detail for 100 ha

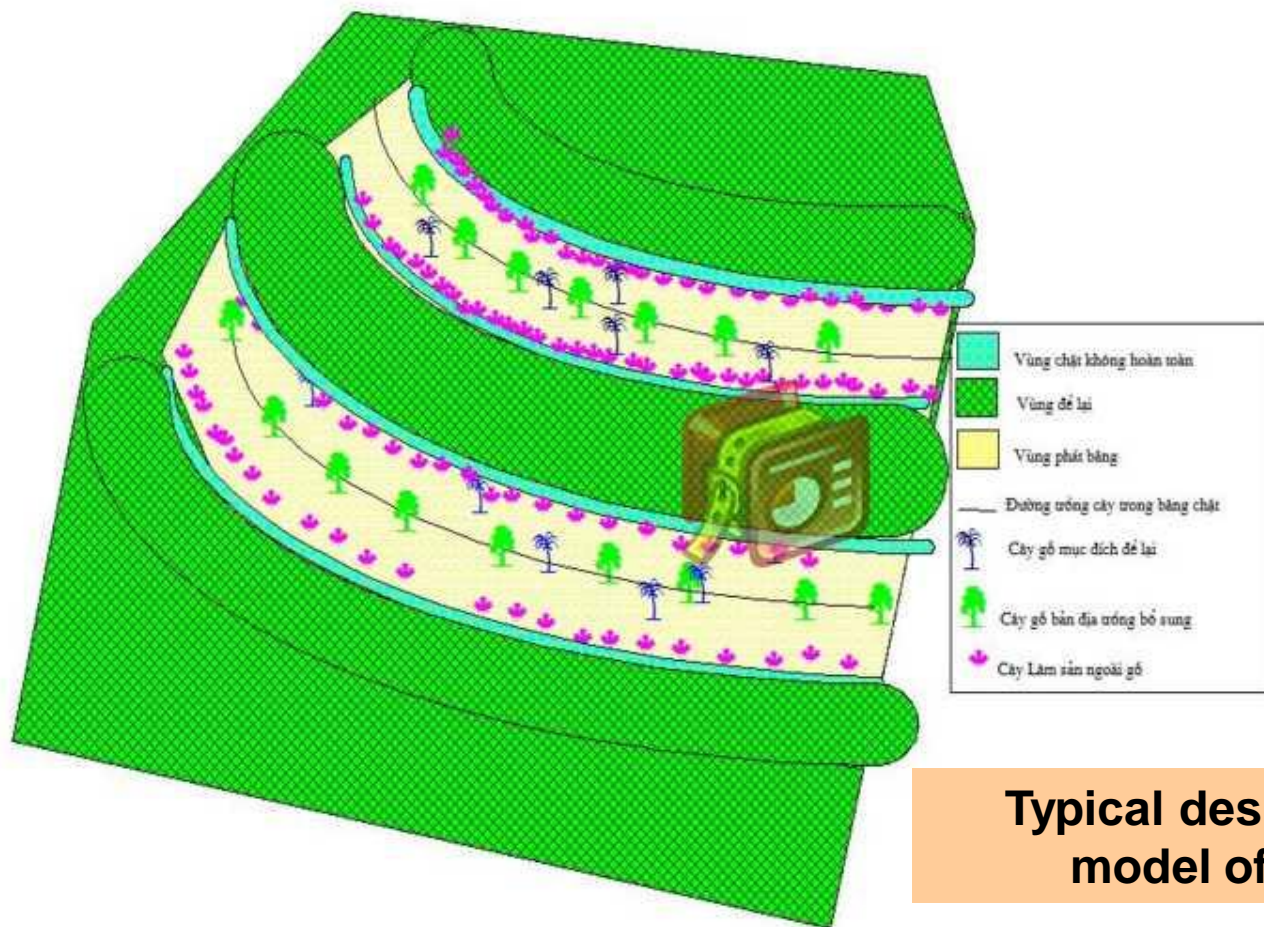




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Implementation progress – Pilot model design



Typical design of pilot model of project



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Implementation progress – Pilot model

- Native timber species & NTFP seedlings contracted by project (ready for planting first 50 ha of pilot models)
- Site preparation for first 50 ha pilot model: Enrichment strips cleared in pilot forest areas; holes dug for planting
- Native trees & NTFP species being planted and completed end of June for first 50 ha
- Practice instructions on the field being conducted



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Implementation progress – Capacity building

- Developed technical guidelines for enrichment planting of 6 native timber species & 6 NTFP species
- 08 technical leaflets developed and ready for publication

E. fordii species planting leaflet



Asia-Pacific Network for Sustainable Forest Management and Rehabilitation
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Ministry of Agriculture and Rural Development, Vietnam



Erythrophleum fordii

Erythrophleum fordii
Scientific name: *Erythrophleum fordii* Oliver
Vernacular name: Lim xanh
Family: Caesalpiniaceae

USES

Erythrophleum fordii is a hard wood species with the density of 0.94, gray-brown. Hardwood is yellow turning dark-brown, texture spiral, chip rough. Timber precious, very durable, resist to rains and sunshine, hardly bent and cracking, used in construction for plank, sleeper and sophisticated furniture for export.

Root contains nitro-fixing spots, crown dense. Because of its deep root, *Erythrophleum fordii* is extremely good for watershed management, wind break and erosion control.

MORPHOLOGY

A big tree, 37-45m in height, sometimes reaches the diameter of 2-2.5m, evergreen. Base greatly cuneate, bole round, branches



big, crown dense and widely spreading. Bark reddish brown with many lenticles, when old splitted into large scale.

Leaves bipinnate compound, 3-4 pairs of secondary pinnules. Each bears 9-15 ovate leaflets, top mucronate, base rotund. Inflorescence a compound raceme, 20-30cm long, flowers small, white green.

Fruit oblong 20cm long, 3-4cm wide, 6-14 seeds. Seeds flat, blackish-brown, lignified, canaliculated around the seeds. Well preserved seeds can durably survive under ground and easily stored.



DISTRIBUTION & ECOLOGY

Erythrophleum fordii is an endemic tree of Vietnam, distributes in those areas where rainfall is varying between 1,500-3,000 mm per annum, from Quảng Ninh, Bắc Giang, Phú Thọ, Vĩnh Phúc, Hòa Bình to Thanh Hóa, Nghệ An, Quảng Bình provinces. This tree likes light, but shade-demanding when young, gradually needs more light and often prevails at the upper layer of forests.

Erythrophleum fordii prefers red, yellow, fertile feralit soil with thick layer, high moisture and forest-originated properties. Natural regeneration is stronger than seed one.

It usually mixes with *Gironniera subaequalis*, *Madhuca pasqueri*, *Pygeum arboretum*, *Canarium album*, *Rhaphirolepis indica* and *Pterospermum heterophyllum*.



SEED & SEEDLING PRODUCTION

Seeds need to be collected from trees over 15 years old. Flowering in March-June. Choose ripe dark brown fruits in October-December, when about 5-10% of fruits cracked or just pick up the dropped fruits. Keep fruits in heap in 2-3 days until they get over-ripe, then dry 2-3 under sunshine to extract seeds. Seeds can be stored in dry and cool location 1-2 years.

Seed purity may reach 90-95%, water proportion 8-9% and germination rate 80-90%, about 1,100-1,300 seeds per kg.





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Implementation progress – Capacity building

- Training materials prepared for 3 training courses on enrichment planting; NTFP planting & forest restoration and protection. Training courses will be conducted in June, 2011
- PRA tools/approaches used for self-assessment of needs of local people
- Equipments (PC, GPS, mortobike, printers...) being procured



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Implementation progress – Monitoring & Evaluation

- Developed project's M & E system
- Reporting project activities being conducted regularly
- Intensive monitoring & supports from central government (VNFOREST, Department of Finance – MARD,...)



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Implementation progress – Fund Disbursement

- Fund disbursed as planned
 - Fund received from APFNet (from September 2010 to now):
235,110 USD
 - Fund contributed from Vietnam counterparts to June 2011:
58,020 USD



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Difficulties & Challenges

- ❑ High demanding on forestry land for crops due to price increased (etc. Casava)
- ❑ Forests were allocated to individual farmers which lessen common forestry activities of communities
- ❑ High & slope forestry land not allow to plant many valuable NTPF species which are more suitable for planting in low and flat areas.
- ❑ Slow reporting process due to insufficient experience of executive agency on ODA project implementation



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Project solutions to cope with challenges

- ❑ Introduce short term NTFP species to shorten intermediate income for local people (Kim tiền thảo - *Desmodium styracifolium*; rau bò khai - *Erythrophalum scandens*)
- ❑ Community based forest management approach which local communities involved in all project activities and project's benefits are contributed to village/commune forestry development fund
- ❑ Model design in detail to find best technical solutions (species selection & planting techniques).
- ❑ Reporting being improved under intensive support of technical assistance team



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Conclusion

- ❑ Project implementation is going on track and achieving good progress.
- ❑ APFNet provides financial support and guidelines on project implementation timely.
- ❑ MARD and VNFOREST provide good support and close supervision of the project implementation.
- ❑ Technical assistance is in time and adequate.
- ❑ Local communities are actively involved in the project's activities.