

Report from training workshop on monitoring environmental services with an introduction to impact evaluation

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August 19, 2013



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Acknowledgements

First and foremost I thank the enthusiastic participants: it was a pleasure working with you. Special thanks to Que Anh Vu Thi and Hue Nguyen Thi from SNV for organizing the workshop and to Que Anh for facilitation. Great job as always! Also, thanks to Duong Duy Khanh – WWF, Doan Viet Cong – DoF Quang Tri and Pham Nguyen Binh – Huong Son State Forest Company for facilitating the group exercises. The Global Environment Facility and the Government of Finland provided financial support. Partial funding comes from the CGIAR Research Programme on ‘Forests, Trees and Agroforestry: Livelihoods, Landscapes and Governance’ led by the Center for International Forestry Research in partnership with Bioversity International, the International Center for Tropical Agriculture and the World Agroforestry Centre.

Executive summary

1. The capacity of the participants has noticeably increased since the last indicator workshop was held in July 2012 and the participants are clearly more familiar with the concept of certification of ecosystem services.
2. In the exercises, the participants could identify management goals and options for ecosystem service provision. During exercises they could also identify linkages between current management objectives and ecosystem services and thus, begin to integrate ecosystem services into management plans.
3. The capacity building efforts of the Vietnam country team regarding monitoring have had a good start and the future outlook is positive as the participants were clearly enthusiastic about the project and devoted much thought on how to proceed.
4. The participants were less familiar with the concept of impact evaluation and thus, more time and capacity building efforts will be needed to realize the concept at practical level.
5. The theories of change should be finalized the pilot site level to ensure all the project participants have a clear understanding of the management objectives and final impact and of the linkages between those two.

1 Introduction

'Expanding FSC certification through incorporating additional ecosystem services' is a four year multi-partner project, funded by the Global Environment Facility (GEF). The project will test expanded Forest Stewardship Council (FSC) standards applied to emerging markets for ecosystem services in Chile, Indonesia, Nepal and Vietnam, and will involve local and international NGOs, research institutions, private sector partners and government agencies. A key component of the project is the development of appropriate and measurable compliance and impact indicators to be incorporated into FSC national standards in the abovementioned countries and into international standards.

To initiate the selection of indicators a workshop was held in each of the four pilot countries in 2012. The key output of the workshops was a list of preliminary indicators linked to ecosystem service provision that could be further refined as the project progresses as well as tested for their appropriateness. During the workshops a need for capacity building was underlined so that the local stakeholders understand what ecosystem services are and what certification of them mean.

As the project has progressed, a follow-up workshop was held in July 2013 in Vietnam to prepare the beginning of monitoring activities and build the capacities of the people involved in the monitoring activities at the site level. This report describes the results of the team exercises and presents a list of indicators derived from those exercises for further discussion.

2 Methods

The goal of the workshop was to build capacities of the people involved in ForCES regarding four key issues: 1) why monitoring is important, 2) what should be measured and monitored in the pilot sites, 3) how environmental services (ES) can be integrated into current forest management activities and 4) familiarize the participants with data collection for monitoring and impact evaluation. The training consisted of presentations and group exercises. Participants were people who will be directly involved in monitoring activities of the ForCES project as well as government representatives and experts involved in the project. The list of participants can be found in appendix 1.

3 Results

3.1 Towards ES certification: How to integrate environmental services in the forest management plan?

After introduction to current FSC forest stewardship standard as a basis for certification of ecosystem services, the participants discussed the management objectives of provision of

ecosystem services and how to integrate the objectives into current management plans. Below the results of group discussions are summarized.

3.1.1 Quang Tri

Current management objectives:

1. Produce quality timber: 60% good quality logwood, 40% chipwood, trees not harvested below 10 years of age, harvestable diameter 16-20 cm.
2. Increase forest productivity and forest health against storms by limiting soil erosion and keeping the soil moisture.
3. To ensure good plant growth, eliminate the competitive growth of weeds so that the plants get enough light and nutrition development.
4. Plant indigenous species.
5. Allocate community forest to community.
6. Intercropping.
7. Increase SFM.
8. Establish forest protection and management groups.
9. To stop forest fire.
10. Develop forest protection plan.
11. Evaluate biodiversity in natural and planted forest.

Objectives for provision of environmental services (ES):

1. Soil protection.
2. Maintain water resources.
3. Maintain and improve environmental services.
4. Prevent soil erosion, prevent sand flow.
5. Supply water for agricultural production.
6. Improve livelihoods of people and develop economic benefit.

Activities to be performed to achieve the management objectives:

1. Management and development of natural forest.
2. Forest inventory and assessment of forest status.
3. Weeding.
4. Marking the allocated forest.
5. Develop profile for forest allocation for communities.
6. Forest regeneration and development
 - a. Indigenous species planting in and around of the natural forest area.
 - b. Increase forest cover in natural forest – to retain water.
 - c. Increase diversity.
7. Establish forest protection groups and develop forest protection and development fund.
8. Allocate community forest to community.

9. Intercropping.
10. Increase SFM.
11. Establish forest protection and management groups.
12. Develop fire management plan.
13. Develop forest protection plan.
14. Evaluate biodiversity in natural and planted forest.

Activities that contribute to the provision of ES:

1. Management and development of natural forest
2. Increase SFM.
3. Forest inventory and assessment of forest status
 - a. Basis for forest allocation – profile for forest allocation.
4. Regeneration of forest
 - a. Soil erosion, water resources, biodiversity
5. Evaluate biodiversity in natural and planted forest.
6. Establish forest protection groups and develop forest protection and development fund
 - a. Individuals manage the forest at one area, in others it is collective.
 - b. Forest patrols
 - c. Sandy soil in Vinh Tu Commune
 - d. Soil erosion and water resource
 - e. To ensure aquaculture, plantation of indigenous species to sell timber for saw.
7. Allocate forest to community.
8. Mark the allocated forest.
9. Intercropping
 - a. To minimize negative impact of local people on the natural forest.
10. Develop fire management plan.

Additional activities to successfully achieve the goals for ES provision:

1. Improve livelihoods through the livestock development and cultivation development
 - a. Background: Many cultivation areas were converted to forest and provide so far no benefits.
 - b. Zoning for different uses recommended.
 - c. 1-2 cows desired per household.
 - d. Cultivation development should focus on thriving species such as coconut and high value products.

3.1.2 Huong Son

Current management objectives:

1. Soil protection and erosion
2. Regulate and maintain water resources
3. Carbon sequestration
4. Protect the landscape and biodiversity, ecotourism
5. Provide food resources and area for animal
6. Aquaculture

Under these broader goals, examples for specific management objectives include:

1. Fire management plan
2. Forest management plan for 35 years.
3. Stable timber harvesting amount
4. Stable NTFP harvesting amounts.
5. Income from NTFP is a stable income for the communities around the forest.
6. Annual criteria to increase economic efficiency.
7. Regeneration and enrichment planting.

Objectives for provision of environmental services (ES):

1. Soil protection, erosion, sedimentation
2. Fire
3. Enhancement of good forest protection
4. Water resources for livelihood use and irrigation
5. To turn carbon into a commodity
6. Protect landscape and conserve biodiversity to serve ecotourism and research
7. Pruning function, national aquaculture production.

Activities to be performed to achieve the management objectives:

1. Additional plantings to diversify and improve forest cover
2. Prevent illegal logging through engagement and contribution.
3. Forest inventory and monitoring.
4. Data collection. Currently data collected by MSc and PhD students but data not precise enough.

3.2 Theory of change

The concept of theory of change was introduced to the participants and they formulated initial, simple theories of change for both pilot sites. These are not comprehensive and can be develop further as the project progresses.

3.2.1 Quang Tri

Table 1. Theory of change for Quang Tri.

Activities	Outputs	Outcomes	Impact
Organize nursery development for plantation.	20- 30 000 indigenous species are planted in natural and plantation forest.	Forest cover is increased.	Protect and develop the existing forest resources so they contribute to sustainable social and economic development.
Plantations of Acacia.	1500 ha of plantation is protected and regenerated.	Natural and plantation forest is protected.	
To develop forest management and harvesting plan.	Harvest 200 ha /year. Replant 200 ha /year.	105 ha of two seasonal paddy cultivation.	
To organize and disseminate training on forest law.	450 ha natural forest is protected.	Soil is protected and improved.	
Training on fire management.		Water resources improved for agriculture.	
Newsletter on forest management activities.	30 newsletters distributed per year.	Sustainable forest management practices adopted.	
Training on FSC and ES certification.	1000 times of people per year.	Forest management improved.	
Develop forest protection regulation for the community.			

3.2.2 Huong Son

Table 2. Theory of change for Huong Son. Under inventory and training, different subjects are listed.

Activities	Outputs	Outcomes	Impacts
Inventory	To have a detailed forest management plan.	Improved knowledge and awareness of the local people living nearby forest on forest protection and ecosystems	Forest is well protected and conserved and sustainably developed. Ensure socio-economic security of the area.
Forest resources	Identification of different silvicultural measures: Including harvesting amount, timber and NTFP, with benefits to local communities.	Increased income and employment opportunities for laborers.	
	Silvicultural measures for plantations		
	Protection, rehabilitation		
Streams	Identification of water bodies		
	Identification of the erosion coefficient		
Biodiversity			
Socio-economic status of the area			
Training			
Carbon stock	Identification of carbon stock		
Silvicultural measures			
Data collection			

National legal document			
International conventions			
Research data and findings			
Other activities			
Protect soil to minimize soil erosion and sedimentation in the river bed and rivers	Soil protected.	Soil erosion and sedimentation minimized in the river bed and rivers.	
Regulate and retain water resources for production and livelihood.	Water resources regulated.	Water resources are maintained and improved for production and livelihoods.	
Create forest carbon sequestration services.	Services created.	GHG emissions reduced through REDD and SF development.	
Provide reproduction sites and feeding sources.	Improved opportunities for species, e.g. natural breeds	National landscape protected and biodiversity of different forest ecosystem serving ecotourism conserved.	
		Improved ecotourism opportunities.	

4 Way forward

4.1 Discussion

Based on the workshop the participants are relatively familiar with the concept of certification of ecosystem services and have a good basis to begin monitoring activities at site level. On the other hand participants are less familiar with the concepts of impact evaluation. Therefore, more capacity building efforts are needed to ensure that impacts of management activities can be evaluated at the later stages of the project.

Next step will be to agree on final indicators at site level and then prepare to begin monitoring activities. The section 4.2 lists indicators that are derived from the theories of change. However, as the theories of change do not list all the management activities needed to achieve the management goals there are additional indicators that can be added once the theories of change are finalized at the pilot site level.

4.2 Indicators

The following indicators can be derived from the theories of change to monitor the impact of management activities. Few additional indicators are also recommended for consideration. To have full support of everybody involved in monitoring it is recommended that the indicators presented here are further discussed at the pilot sites.

Quang Tri

1. The percentage of the border that is clearly marked.
2. The area of the natural forest deforested (in hectares).
3. The number of incidents related to illegal forest degradation, deforestation, illegal hunting and wildlife trade per month (based on the forest patrol records). Data should be aggregated at the end of each month.
4. The amount of sand/topsoil in agricultural lands/residential areas.
5. The area harvested per year (in hectares).
6. The area replanted per year (in hectares).
7. The number of native tree seedlings survived of those that were planted.
8. The number and area of forest fires per year.
9. The area under two seasonal paddy cultivation per year (in hectares).

10. Status of the forest allocation process and rights (clarified (e.g. communicated clearly) and/or strengthened)
11. The number of people trained in FSC and ES certification.
12. Water quantity and quality, e.g. the amount of suspended solids in water decreased compared to a baseline and/or counterfactual area and changes in water level.

In addition following indicators are recommended for consideration:

Gender:

13. The share of women and/or other minority groups represented in the decision making bodies.
14. The power of women and/or other minority groups to influence decision making (i.e. do they have influence on decisions?).

Livelihoods:

15. The improvement of livelihoods due to provision of ecosystem services (e.g. fruit tree seedlings received as compensation -> fruit sold and the money used to send children to school).

Huong Son

1. The amount of total dissolved and suspended solids in water decreased compared to a baseline.
2. The amount of carbon conserved due to improved harvesting practices and forest protection.
3. The amount of carbon stored due to reforestation/afforestation activities, e.g. biomass of survived seedlings.
4. Area set aside (no extractive activities) for conservation purposes.
5. Area managed primarily for conservation purposes.
6. Sightings or population trends of key species, e.g. species valuable for ecotourism, national breeds, HCV or endangered species.
7. Species composition shows no change compared to a baseline and species composition changes towards desired state.
8. The income of laborers increased compared to a baseline.
9. Hours of employment from forestry.

In addition following indicators are recommended for consideration:

Livelihoods:

10. The improvement of livelihoods due to provision of ecosystem services (e.g. fruit tree seedlings received as compensation -> fruit sold and the money used to send children to school).

Gender:

11. The share of women and/or other minority groups represented in the decision making bodies.
12. The power of women and/or other minority groups to influence decision making (i.e. do they have influence on decisions?).

Equitable access to forest resources:

13. Type of rights (e.g. informal/formal; user rights/tenure) exist regarding land and forest products (timber, NTFPs, and game)
14. The status of rights (clarified (e.g. communicated clearly) and/or strengthened)
15. Number of conflicts reduced or kept at low levels.
16. Fewer conflicts compared to a counterfactual.

High quality public consultation with potentially affected local stakeholders is held, including FPIC consultation when necessary:

17. Identification of the stakeholders (e.g. the person who was consulted locally to identify relevant stakeholders).
18. The percentage of the groups present in the area that participated in the consultations (i.e. representativeness).
19. The way (e.g. posters, invitation letters) how the identified local stakeholders were consulted.
20. The number of days between when the notice of stakeholder consultation was given and the actual consultation.
21. The way local stakeholders had an opportunity to influence decision making. Note: there may be no way to influence the decision making.
22. The existence of negotiation support to groups that have weak bargaining power (existent/non-existent/exists partially)
23. The share of willing stakeholders that had an opportunity to participate in the project. If not all could participate, what was the mechanism to determine who can participate?
24. Sharing of the outcome of consultations (Was the outcome shared locally? With what type of feedback? If needed on particular issues, how follow-up occurred?).

5 Appendix 1

The participants of the workshop.

No.	Name	Organisation
1	Hoàng Đức Doanh	Department of Forestry Quang Tri
2	Đoàn Việt Công	Department of Forestry Quang Tri
3	Hồ Sỹ Huy	Department of Forestry Quang Tri
4	Nguyễn Quang Hải	Vice chair of Vĩnh Tú commune
5	Trần Đức Vãn	Vĩnh Tú commune
6	Lê Hữu Hiển	Vĩnh Tú commune
7	Nguyễn Văn Phong	Vĩnh Tú commune
8	Võ Văn Phong	Vĩnh Tú commune
9	Trần Đức Tường	Vĩnh Tú commune
10	Phạm Nguyễn Bính	Huong Son State Forest Company, Hà Tĩnh
11	Trần Bá Hoan	Huong Son State Forest Company
12	Trần Trung Anh	Huong Son State Forest Company
13	Khuất Thị Lan Anh	Department of Forest Utilization, Việt Nam Forest Administration
14	Dương Duy Khánh	WWF
15	Lê Thủy Anh	WWF
16	Lý Thị Minh Hải	SNV
17	Steven Swan	SNV
18	Nguyễn Mạnh Hùng	FIPI Forest Inventory and Planning Institute
19	Sini Savilaakso	CIFOR
20	Vũ Thị Quế Anh	ForCES/SNV
21	Nguyễn Thị Huệ	ForCES/SNV
22	Cường	Translator
23	Hương	Translator