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# LEAF Scoping Mission Report

Vietnam and Laos

# **Lowering Emissions in Asia's Forests (LEAF)**

Cooperative Agreement Number: AID-486-A-11-00005

## **LEAF SCOPING MISSION REPORT**

**Vietnam and Laos**

Submitted to LEAF Head Office

Submitted by  
Felipe Casarim

Submitted on  
November 2012



**WINROCK**  
INTERNATIONAL

The Lowering Emissions in Asia's Forests (LEAF) Program, a five-year cooperative agreement, is funded by the United States Agency for International Development's (USAID) Regional Development Mission for Asia (RDMA). LEAF is being implemented by Winrock International (Winrock), in partnership with SNV – Netherlands Development Organization, Climate Focus and The Center for People and Forests (RECOFTC). The LEAF program began in 2011 and will continue until 2016.

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# **1 Introduction**

## **1.1 Background**

The USAID LEAF program, established in 2011, is now focusing providing technical assistance to targeted countries with the purpose of developing capacity for undertaking field activities for implementation of REDD+. During the month of October, 2012, Winrock International carbon expert, Felipe Casarim, traveled to Vietnam and Laos to conduct a scoping mission for planning upcoming field activities.

## **1.2 Objective of the report**

This report describes Mr. Casarim's scoping mission and lays out expected next steps.

The overarching goal of Mr. Casarim's scoping missions was to investigate the availability of existing datasets and define their applicability to REDD+. Mr. Casarim also focused on building and developing relationships with countries' technical experts that may support the LEAF program.

## 2 Vietnam

Mr. Casarim traveled to Hanoi to engage in a week of technical discussions for continuing development of LEAF's program in Vietnam. Multiple meetings were arranged to provide Mr. Casarim a better understanding of the many ongoing initiatives related to REDD+ in Vietnam as well as to allow him to present Winrock's innovative ideas for forest carbon monitoring (Annex I). The main focus of Felipe's visit data availability and discuss strategic planning for commencing technical work towards REDD+ implementation in Vietnam.

The scoping mission allowed an initial understanding of the complex forest cover dynamics in Vietnam. The highly heterogeneous forest types and the convoluted land cover/land use change dynamics, the increasing forest cover due to plantations of commercial forests, and the sustained natural forest degradation (and deforestation), create a unique challenge for monitoring reductions in greenhouse gas emissions from a REDD+ perspective, especially with regards to stratification of forest areas and development of emission factors.

At the end of the week, the scoping mission yielded strong LEAF Vietnam team building and resulted in establishment of critical relationships with LEAF partners in Vietnam for moving REDD+ forward.



**Figure 1: LEAF Vietnam technical consultation meeting**

## **2.1 Available data**

A significant amount of work related to REDD+ development has been conducted in Vietnam.

### **2.1.1 Allometric equations**

The UN-REDD Vietnam program has sponsored extensive destructive sampling for development of country-specific allometric equations. The work was led by personnel from FAO and researchers from Vietnam's Research Centre for Forest Ecology and Environment (RCFEE). FAO's UN-REDD Vietnam coordinator Ms. Akiko Inoguchi discussed the destructive sampling initiative with Mr. Casarim as well the status of the UN-REDD Vietnam programme<sup>1</sup>. Supplementary technical information was acquired at Mr. Xuan's (RCFEE) presentation during the "LEAF Technical Consultation Meeting" held on October 16, 2012 (list of participants on Annex II).

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<sup>1</sup>Government of the Socialistic Republic of Viet Nam, UNEP, FAO, UNDP. 2009. Revised Standard Joint Programme Document. 103 pp. Available at: <http://www.un-redd.org/UNREDDProgramme/CountryActions/VietNam/tabid/1025/language/en-US/Default.aspx>

The work entailed the stratification of Vietnam into 8 different ecological regions<sup>2</sup> based on the method described at Phuong et al. (2011) with different forest types in different portions of the country. A total of 6 different allometric equations were developed one for each of the following forest types:

- Evergreen and semi-evergreen broadleaf forest
- Deciduous forest
- Bamboo forest (*Dendrocalamus barbatus*)
- Bamboo forest (*Schizostachyum sp*)
- Bamboo forest (*Indosasa sp*)
- Bamboo forest (*Bambusa balcoa*)

More information can be found at:

Phuong, V. T., N. T. M. Linh, N. N. Lung, D. D. Sam, N. X. Quat, T. V. Lien, N. D. Que, T. V. Con, N. D. Ky, L. V. Cam, D. H. Thu, N. T. Giang, H. V. Anh, D. T. Giang, P. N. Thanh. 2011. Forest Ecological Stratification in Vietnam. Research Center on Forest Ecology and Environment (RCFEE). 139 pp.

Phuong, V. T., M. Henry, A. Inoguchi, B. Huy, N. D. Hung, P. V. Khoa, D. T. Trieu, and P. M. Cuong. 2012. Guidelines on destructive measurement fore forest biomass estimation. FAO & UN-REDD Vietnam programme. 36 pp.

Trieu D. T., and V. T Phuong. 2012. Allometric equation development for biomass estimation in Vietnam. UN-REDD Vietnam programme. Powerpoint presentation. 18 slides.

### 2.1.2 Land cover mapping and activity data

National land cover maps have been produced by the Forest Inventory and Planning Institute (FIPI) of the Vietnam Forestry Administration (VNForest). FIPI has produced maps for the years of 1990, 2000, and 2005 and 2010 using Landsat satellite imagery and high resolution SPOT-5 imagery. There are a total of 12 forest classes that are defined based on spectral signatures of satellite imagery as well as digitization of observations from ground measurements taken during National Forest Inventory plot establishment. The ground measurements are used to validate the remotely sensed products, and to inform the subdivision of the evergreen forest class based on its timber stocking (high, medium or poor). This creates issues with mapping accuracy across forest classes, and yields a granular forest land cover map.

More information can be found at:

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<sup>2</sup> Phuong et al. (2011).

Vietnam REDD+ Office. September 2011. Measurement, reporting and verification (MRV) framework document: With reference to safeguards information and monitoring of policies and measures. Under the Vietnam National REDD+ Program. Draft. Available at:

[http://www.vietnam-redd.org/Upload/Download/File/MRV\\_Framework\\_Document\\_V1\\_Draft\\_3\\_4046.pdf](http://www.vietnam-redd.org/Upload/Download/File/MRV_Framework_Document_V1_Draft_3_4046.pdf)

### 2.1.3 Forest inventory and emission factors

FIPI is also in charge of conducting Vietnam's NFI. The NFI effort started in 1990 and is completed on a 5 year cycle; therefore, 4 cycles have occurred thus far. The goal of this initiative is to estimate the volume of timber in Vietnamese forestlands, and inform decision makers on land use planning through collecting data used for land cover mapping. The NFI sample scheme is systematic, using a grid system of 25 km x 25 km and sampling one plot at every intersection.

Vietnam's NFI methods are currently undergoing two reviews to improve the system: (i) one under FIPI, (ii) and the other under the FAO-Finland cooperation for National Forest Assessment (NFA). LEAF would greatly benefit from learning more about these reviews as it would inform adaptation required to Winrock's methods so that LEAF sampling could nest within FIPI's NFI initiative.

More information on this subject can be found at:

Vietnam REDD+ Office. September 2011. Measurement, reporting and verification (MRV) framework document: With reference to safeguards information and monitoring of policies and measures. Under the Vietnam National REDD+ Program. Draft. Available at:

[http://www.vietnam-redd.org/Upload/Download/File/MRV\\_Framework\\_Document\\_V1\\_Draft\\_3\\_4046.pdf](http://www.vietnam-redd.org/Upload/Download/File/MRV_Framework_Document_V1_Draft_3_4046.pdf)

Ministry of Agriculture and Rural Development (MARD). Decree 01/2008/ND-CP. Guide to statistics, forest inventories and documentation of forest management.

## 2.2 Upcoming field training

Following conversations with the LEAF Vietnam team, field training will focus solely on forest carbon assessment, with classroom exposure of LEAF Vietnam staff to methods for estimating emission factor from degradation from selective logging. This decision was based on UN-REDD Vietnam allometric equation development, and on initial discussions on drivers of land-cover change in Lam Dong province (e.g. no selective logging so no training required on assessment of stock change associated with selective logging). Training will focus on field plot establishment and measurements, as well as data entry and data analysis. Quality assurance and quality control protocols will be included across all the steps of the training.

The training is planned to take 2 weeks: (i) one week on field measurements, and (ii) one week on data entry and data analysis for emission factor creation (from deforestation and degradation due to selective logging). The training is tentatively scheduled for early-mid March 2013 (immediately after training in Laos), as field teams are expected to collect ground data for Lam Dong's reference level (RL) development before monsoon season, soon after training is completed.

### **2.3 Winrock-SNV Participatory Carbon Monitoring: Operational Guidance for National REDD+**

An entire afternoon of discussions was dedicated to defining the type of collaborative work between Winrock and SNV that will most benefit HB-REDD+ and LEAF's regional achievement through "Participatory Carbon Monitoring" (PCM).

This collaborative work will result in a generic operational framework providing guidance on multilevel stakeholder participation on operational aspects of national REDD+ carbon monitoring systems. The document will focus on engaging various stakeholders from multiple levels and their integration within a national forest monitoring system serving a national REDD+ Program, highlighting the different legal rights, responsibilities, revenues, and relationships; however focusing on the division of responsibilities based on different technical capacities and resource availability.

The operational framework will discuss the vertical integration of national REDD+ carbon monitoring systems by detailing the division of technical responsibility of national, subnational, and local level and community stakeholders. The document will not present a step-by-step protocol on forest carbon measurement (i.e. it will not duplicate, but complement, LEAF/Winrock International's already published Standard Operating Procedures (SOPs)), but rather assign roles and responsibilities of various stakeholders involved in REDD+ carbon monitoring. The audience of this operational framework will be those responsible for designing and managing a PCM system within the national REDD+ scheme (e.g. REDD+ taskforce). International REDD+ technical advisors (i.e. our peers) would also be a primary audience for this document, which would lay a claim to and define explicitly, the PCM concept.

### **2.4 Remarks**

As an important initial step, the country of Vietnam has already decided on its definition of forest (personal communication with LEAF VN staff), thus allowing proper demarcation of its forest areas for REDD+ intervention, although this definition differs from the

Vietnamese definition of forests under the UNFCCC<sup>3</sup>. The Vietnamese forest definition discussed stipulates the following thresholds:

- Canopy cover  $\geq$  10%
- Tree height  $\geq$  5 m
- Area  $\geq$  0.5 ha
- Includes bamboo forests

The amount of previous and ongoing work related to REDD+ may create technical impediments, as databases/systems/policies designed for different purposes are required to weave its way into the already complex REDD+ scheme. However, the knowledge basis already established in the country has the potential to substantially facilitate new REDD+ initiatives by promoting easy advancement of discussions, and facilitating an informed decision-making process, especially given the engagement of various government, academic, non-government and civil institutions. Thus, significant emphasis shall be placed on interaction of multiple stakeholders promoting REDD+, and the complete integration of knowledge amongst them. LEAF will likely hugely benefit from pursuing direct collaboration with FIPI and UN-REDD Vietnam.

Specifically to LEAF, the Vietnamese team portrayed substantial dedication to the program, and considerable understanding of REDD+ technical subjects. This certainly highlights the capacity of achievement from the team, and likelihood of success of LEAF program in Vietnam.

In regards to the WI-SNV PCM work, a concept note has been drafted to provide guidance on content, distribute responsibilities between Winrock and SNV, and establish a tentative timeline for this work. No financial assistance is expected from LEAF to accomplish this work, however LEAF will benefit from it by using the operational framework in selected countries as case studies.

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<sup>3</sup> More details on Vietnam's forest definition under the UNFCCC at: <http://cdm.unfccc.int/DNA/bak/ARDNA.html?CID=233>



**Figure 2: LEAF Vietnam team**

### 3 Laos

Mr. Casarim also traveled to Vientiane for a little longer than a week for continuing the development of the LEAF Laos program. Mr. Casarim focused his attention on building solid relationships with LEAF Laos partners, while also presenting innovative concepts for forest carbon monitoring applicable to Laos. Technical discussions for LEAF support of REDD+ development in Laos were part of Mr. Casarim's agenda alongside improvements to existing databases under Forest Information Management (FIM) programme, and collaboration amongst ongoing Japanese, German and American funded projects in Laos (Annex III). The visit successfully yielded solid communications with Lao Government representatives as well as a plan for harmonizing methods amongst LEAF, CliPAD and potentially PAREDD projects.

#### 3.1 Available data

The country of Laos has not produced much data that would be applicable to REDD+ at the national scale. The majority of data with potential national applicability was produced under the FIM programme, funded by the Japanese development agency (JICA). The FIM program is composed of two main components: (i) land cover mapping, and (ii) ground measurements. Additional data might exist from research projects conducted throughout the country, however the extent of existing information is unknown, and so is their scientific integrity.

FIM-CliPAD-LEAF have agreed to collaborate and support FIPD on expanding both the FIM dataset and database (see discussion below) in support of a national REDD+ program.

##### 3.1.1 Allometric equation

No allometric equation specific to the country of Laos has been developed. However, Faculty of Forestry members, Dr. Sithong and Dr. Khamla, have expressed interest in developing a forestry curriculum program to include allometric equation development and conduct destructive sampling of a few trees every year. This initiative it will result in building a database that can be used to develop allometric equations over time.

##### 3.1.2 Land cover mapping

The land cover mapping component of the FIM programme is in charge of producing country-wide land cover maps for 3 points in time: 2000, 2005, and 2010/11. The 2010/11 map is currently undergoing final refinements and should be published in the near future (by March, 2013). Maps for 2000 and 2005 are envisioned in FIM's phase 2, which will start in mid-2013. Dates for publishing 2000 and 2005 land cover maps for

Laos are not yet defined. The Department of Forestry is currently considering revising the country's land cover classification system. This would provide a flexible framework suitable for both remote sensing and field survey for work at national, provincial and project level for a number of uses ranging from forest management to land use planning to carbon accounting. It is expected that historical land cover maps will use this improved land classification schematic.

### 3.1.3 Forest inventory and emission factors

The ground measurements component of the FIM programme has been implemented with the assistance of Laos Forest Inventory and Planning Division (FIPD). This initiative resembles a National Forest Inventory, as it established a total of 2,322 cluster plots systematically (4 km x 4 km grids) over forest (1,695 plots with 5 subplots) and non-forest (627 plots with 5 subplots) areas. Only aboveground live tree and photos for validating remotely sensed data were collected in the plots.

FIPD is currently in the process of developing a database management and storage system, called Forest Carbon Assessment System (FoCAS). The FoCAS is composed of a data archiving and management system for all data collected under FIM. No analytical capabilities are presently being incorporated to FoCAS.

More information on this subject can be found at:

Forest Inventory and Planning Division (FIPD), Kokusai Kogyo Co., and Japan International Cooperation System (JICS). 2012. Guideline on national forest inventory survey for satellite image classification analysis. Draft. 33 pp.

Phothisane B. 2011. System analysis and database design for the Forest Carbon Assessment System (FoCAS). Forest Information Management (FIM) Programme, Forest Inventory and Planning Division (FIPD), and Kokusai Kogyo Co. 2011. 38 pp.

Masuda K. 2012. Workshop on Forest Information Management: Results of Field Survey in 2012. Forest Inventory and Planning Division (FIPD) in cooperation with Kokusai Kogyo Co. Powerpoint presentation. 20 slides.

## 3.2 Upcoming field training

Following conversations held with the LEAF Laos team and the Faculty of Forestry from the National University of Laos, field training will focus on forest carbon assessment and destructive sampling for allometric equation development. This decision arose from a current logging ban across Laos and based upon a request from the Faculty of Forestry to build capacity on allometric equation, and develop curriculum improvements in the University for constructing a destructively sampled trees' database overtime.

Training will focus on field plot establishment, and measurements for destructive sampling and forest carbon assessment, as well as data entry and data analysis. Quality assurance and quality control protocols will be included across all the steps of the training.

The training is planned to take 3 weeks: (i) one week on destructive sampling, (ii) one week on forest carbon assessment, and (iii) one week on data entry and data analysis for both of previous components. The tentative schedule is mid-February 2013, as field teams are expected to collect ground data for Houaphan's reference level (RL) development before monsoon season, and soon after training is completed.

### 3.3 Remarks

The country of Laos has already agreed on a forest definition under the UNFCCC<sup>4</sup>, and according to discussions and considerations, seems the definition will remain unchanged:

- Canopy cover  $\geq 20\%$
- Tree height  $\geq 5$  m
- Area  $\geq 0.5$  ha
- Exclude bamboo forests

No allometric equation specific to the country of Laos was identified during the scoping mission; a fact also emphasized by Faculty of Forestry. Although field training will include destructive sampling for allometric equation development, such a task requires significant time and effort; and as wisely expressed by Dr. Sithong (Faculty of Forestry), such a subject would be an ideal curriculum development for the Forestry College, where the database would be built overtime by forestry students. Nonetheless, the neighboring country of Vietnam has already developed several forest type-specific allometric equations, and some of these equations will be appropriate for Lao forests as well. Thus, initial focus (from cost-effectiveness stand point) should be placed on verifying appropriateness of Vietnamese equations for preliminarily estimations of aboveground live trees carbon stocks based on FIM data.

Discussions with the FoCAS system developer (Mr. Bounkong Phothisane) and FIPD and FIM representatives (Mr. Somchay Sanontry, and Mr. Kajiwara and Mr. Haraguchi respectively) indicated the possibility to enhance FoCAS system to include additional carbon pools (non-tree vegetation, litter, down deadwood and soil), and also incorporate analytical capabilities; thus allowing automated and error-free estimation of forest carbon stocks. Over a couple of meetings during the scoping mission, LEAF has advised FIM on

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<sup>4</sup> More details on Laos' forest definition under the UNFCCC can be found at: <http://cdm.unfccc.int/DNA/bak/ARDNA.html?CID=118>

enhancements necessary to FoCAS database to allow estimation of carbon stocks for all pools, however FIM has not collected such data in the past, and therefore enhancements are expected to be incorporated to FoCAS system only when new data are collected (i.e. upcoming field data collections are likely to include additional pools and therefore will require enhancements in FoCAS systems). Analytical enhancements were solely discussed as additional improvements, but no actual timeline was defined.

Specifically to the LEAF program, a unique opportunity exists in Laos. Laos has not conducted much work related to REDD+, and while that may be perceived as an impediment, it in fact provides an opportunity, given work will commence basically from scratch. Therefore LEAF, in collaboration with the Lao Government, can assist the country in developing REDD+ by using the most up-to-date technologies, and applying innovative concepts and robust science; as opposed to being tied to systems already implemented for a number of years, and having to modify them for REDD+. In addition, LEAF Laos has the real opportunity, and Lao Government support, to collaborate with GIZ funded project—CliPAD, and JICA funded project— PAREDD, to benefit the country's REDD+ development.



**Figure 3: Lunch meeting with from LEAF Laos' staff member, Mr. Sengkham Inthiratvongsy.**

## 4 Next Steps

### 4.1 LEAF Vietnam

As a follow up from scoping mission in Vietnam, and to ensure LEAF is progressing on developing Lam Dong's RL, the following items should be considered a priority:

- Formally request FIPI to share Vietnam's landcover maps to allow assessment of data and verify possibility of use for establishing Lam Dong's RL
- Formally request FIPI to share Vietnam's NFI data to allow for data analysis and initial stratification of Lam Dong's forests by carbon stocks
  - Specifically data for Lam Dong province, but ideally all VN data, so we can begin work on preliminary C stock stratification and potential grouping of forest types
    - (Please request data in Microsoft Excel format)
  - Also request document describing sampling design and methods for collecting NFI data
- Formally request FIPI to share 2 NFI redesign methods, so LEAF can study and learn the proposed improvements, and design Lam Dong's RL sampling mirroring the potential modifications to NFI
  - If possible, ask Dr. Cuong the most likely new method VNForest will adopt in future NFIs
- Formally request Ms. Akiko Inoguchi (FAO) to share UN-REDD Vietnam destructive sampling data to allow assessment of data and verify possibility of use for establishing Lam Dong's RL
  - We may also request these data from Mr. Xuan and/or Dr. Phuong (RCFEE) as they both seem willing to collaborate.
  - Please also request Dr. Hung (FIPI) the papers assessing the statistics and robustness of UN-REDD Vietnam's allometric equation.
- Assign a LEAF Vietnam staff as responsible to organize Vietnam folder in Skydrive, as there are too many documents in skydrive making it difficult to filter the most relevant information. Suggestion to organize data by (however I am fine with whatever organizational hierarchy this responsible person prefers):
  - Topic: allometric equation, land cover mapping, forest inventory, etc
  - Type of document: final report, interim report, presentation, scientific papers, etc

**Important:** Please make sure skydrive files are named appropriately (most of them might require renaming), including name of project/authors, topic of report, and date. Also make sure we have no repeated files, and that files from Googledocs migrate to skydrive following same organizational hierarchy.

- Provide a comprehensive short report on drivers of deforestation and forest degradation, specifically in Lam Dong province, as that will influence the development of our sampling strategy.
  - Please describe each of the drivers, including relevance, aerial extent, and common practice. These descriptions can be qualitatively based on local expert knowledge.
- Start coordinating logistics for the upcoming field training in March 2013. Although there is still quite a bit of time, the sooner we organize the training, the better will be its quality and outcome.
- Pursue collaboration from RCFEE, FIPI and UN-REDD Vietnam, especially in Lam Dong's RL as we move forward.
- Winrock and SNV will collaborate on writing an "Operational Framework for Participatory Carbon Monitoring".
  - A concept note has been drafted
  - LEAF will only contribute financially to this product if necessary. However LEAF will benefit from knowledge generated and pilot the use of this Operational Framework in appropriate countries.

## 4.2 LEAF Laos

Following up from the scoping mission in Laos, and to ensure LEAF Laos is progressing on developing Houaphan's RL, the following items should be considered priority:

- Formally request FIM and FIPD to share Laos' 2010/11 landcover map to allow assessment of data and verify possibility of use for establishing Houaphan's RL
- Formally request FIM and FIPD share field measurements' data to allow for data analysis and initial stratification of Houaphan's forests by carbon stocks
  - Specifically data for Houaphan province, but ideally all data for all Laos, so we can start working on preliminary carbon stock stratification and potential grouping of forest types
    - Please request data in Microsoft Excel format
  - Also request document describing sampling design and methods for collecting FIM data

- Provide a comprehensive short report on drivers of deforestation and forest degradation, specifically in Houaphan province, as that will influence the development of our sampling strategy and ultimately the sampling design.
  - Please describe each of the drivers, including relevance, aerial extent, and common practice. These descriptions can be qualitatively based on local expert knowledge.
- Start coordinating logistics for the upcoming field training in February 2013. Although there is still quite a bit of time, the sooner we organize the training, the better will be its quality and outcome.
- Pursue collaboration from FIPD, CliPAD and PAREDD, especially in Houaphan's RL as we move forward.
  - A harmonization of FIM and CliPAD's sampling methods is being drafted and will be submitted by mid-December.
- Assign a LEAF Laos staff as responsible to organize Laos folder in Skydrive. Suggestion to organize data by:
  - Topic:, land cover mapping, forest inventory, research studies, allometric equation, etc
  - Type of document: final report, interim report, presentation, scientific papers, etc

**Important:** Please make sure skydrive files are named appropriately (most of them might require renaming), including name of project/authors, topic of report, and date. Also make sure we have no repeated files.

**Annex I – Agenda for Vietnam’s scoping mission**

<b>Time</b>	<b>Activity</b>	<b>content</b>	<b>People involve</b>	<b>Location</b>
15/10	Morning: working with LEAF Vietnam	<ul style="list-style-type: none"> <li>- Brief about the purpose of the trips.</li> <li>- LEAF staff brief on carbon emission baseline has been calculated for LEAF</li> <li>- Working on data need for the RL and GIS training in Nov/Dec , 2012</li> <li>- Working on LEAF’s work plan</li> </ul>	Hai, Van, Nam, Quyen	SVN office
	Afternoon: <ul style="list-style-type: none"> <li>- 2:30 – 3:30 meeting with Akiko FAO coordinator for UNREDD program</li> <li>- 3:30 – 5:00 working with LEAF Vietnam</li> </ul>	•	Hai, Van, Nam, Quyen	SNV office
16/10	9:00 – 12:00: Consultation Meeting with Vietnamese experts who work on development of allometric equation in Vietnam.	Vietnamese experts gives presentation about : Updates on the Allometric Equation study under UN-REDD	Quyen, Nam, Hai	SNV office
	1:30 – 3:30: Meeting with HB REDD+ to discuss about PCM		Nam, Steve, Quang, Quyen	SNV office

	methodology			
17/10	<p><b>Morning:</b></p> <ul style="list-style-type: none"> <li>- Discussion on LEAF work plan – Lam Dong province REDD+ action plan</li> </ul> <p><b>Afternoon:</b></p> <ul style="list-style-type: none"> <li>- Technical discussion on forest planning for Con Cuong FSC</li> <li>- Discussion on additional work for LEAF Vietnam.</li> </ul>	<p>develop a better / more detailed plan for Lam Dong PRAP:</p> <ul style="list-style-type: none"> <li>- RL development; sampling design and measurement</li> <li>- Data needs</li> <li>- Approach/ Design of activities for PRAP</li> </ul>	Hai, Van, Nam, Quyen	SNV office
18/10	<p><b>All day:</b></p> <ul style="list-style-type: none"> <li>• Working with LEAF Vietnam:</li> </ul>	<p>Exchange information about EA study in Vietnam</p> <ul style="list-style-type: none"> <li>- Finalising biomass training</li> <li>- Teaching LEAF Vietnam on plots database management in excel</li> <li>- Teaching LEAF staff on carbon calculation (based on activity data and emission factor)</li> </ul>	Nam/Van/Quyen	RCFEE office SNV office
19/10	<p><b>Morning:</b></p> <p>9:30 Am: meeting with</p> <ul style="list-style-type: none"> <li>• Dr. Vu Tan Phuong (RCFEE)</li> </ul>		All LEAF staff	SNV office

	Wrap up mission			
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## ANNEX II – List of Participants in LEAF’s Technical Consultation Meeting in VN

No	Full name	Position	Organisation	Contact
1	Ly Thi Minh Hai	Project Manager	SNV – LEAF Vietnam	HLyThiMinh@snvworld.org
2	Felipe Casarim	Carbon specialist	Winrock International	fcasarim@winrock.org
3	Peter Stephen	Forestry and CC advisor	SNV – LEAF region	PStephen@snvworld.org
4	Nguyen Hanh Quyen	Forestry and CC specialist	SNV – LEAF Vietnam	QNguyenHanh@snvworld.org
5	Pham Thanh Nam	Lam Dong Field advisor	SNV – LEAF Vietnam	NPhamThanh@snvworld.org
6	Dr. Bui The Doi	Lecturer	Vietnam Forestry University	buihedoi@gmail.com
7	Nguyen Viet Xuan	Researcher	RCFEE, Vietnamese Academy of Forest Sciences	xuan.nv@rcfee.org.vn
8	Steve Swan	Advisor	SNV	Steven.ryan@snvworld.org
9	Nguyen Vinh Quang	Project Manager	SNV - HB project	QNguyenVinh@snvworld.org
10	Pham Duc Cuong	Remote sensing, GIS expert	Forest Inventory and Planning Institute	
11	Nguyen The Dung	Lecture	Vietnam Forestry University	<a href="mailto:dungdtr@yahoo.com">dungdtr@yahoo.com</a>
12	Nguyen Dinh Hung	RS – GIS expert	Forest Inventory and Planning Institute	dinhhung28@yahoo.com

## Annex II - Agenda for Laos' scoping mission

Date	Activities	Time/Place
21.10.2012	Arrival to Vientiane, Laos	
Mon. 22.10.2012	<ul style="list-style-type: none"> <li>• Introduction to SNV-LEAF office/staff</li> <li>• Working schedule/plan confirmation</li> </ul>	@SNV office
Tue. 23.10.2012	<ul style="list-style-type: none"> <li>• Meeting Mr. Bounkong, Database design consultant</li> </ul>	8:30-10:00
	<ul style="list-style-type: none"> <li>• Meeting Dr. Kinnarone/Khamsene REDD+ Office Secretariat</li> </ul>	10:00-11:00
	<ul style="list-style-type: none"> <li>• ???</li> </ul>	11:00-12:00
	<ul style="list-style-type: none"> <li>• Meeting Dr. Sithong and Dr. Khamla @Faculty of Forestry, National University of Laos</li> </ul>	13:30-15:00
Wed. 24.10.2012	Presentation on Experience on Biomass study and RLs development in other countries (Ghana???)	8:30-12:00 @SNV office
	Meeting CliPAD (Who?? Gabriel??)	13:30-15:00
	Meeting SURFORD (Who???)	15:00-16:30
Thu. 25.10.2012	<ul style="list-style-type: none"> <li>• Meeting Mr. Somchay and other FIPD RS/GIS/Survey staff</li> <li>• JICA FIM Experts (Whoever available??, Dr. Kajiwara, FPP/TA2 member??)</li> </ul>	8:30-12:00

	<ul style="list-style-type: none"> <li>JICA FIM Experts (Whoever available??, Dr. Kajiwara, FPP/TA2 member??)</li> </ul> (Continue)	13:30-16:30
Fri. 26.10.2012	Drafting summary report of the findings and planning for next steps and biomass study training.	8:30-12:00
	Debriefing Mr. KHamphay/Dr. Kinnalorn on the findings	15:00-17:00
<b>Sat.</b> <b>27.10.2012</b>	<b>Weekend</b>	
<b>Sun.</b> <b>28.10.2012</b>	<b>Weekend</b>	
Mon. 29.10.2012	???	8:30-12:00
	Meeting Haraguchi, KKC/FIM Consultant	13:30-16:30
	Leaving VTE @21:45 TG Flight	