

PILOTING PARTICIPATORY CARBON MONITORING IN VIET NAM

Under REDD+, developing countries like Viet Nam will need to generate evidence of “results-based actions” to receive payments for the reduction of carbon emissions or enhanced removals of carbon. The national Measurement, Reporting and Verification (MRV) system holds the key for producing this evidence. The MRV system needs to record information on activity data (area of forest land) and emission factors (changes in forest biomass).

In Viet Nam, stakeholders are now engaging in discussions for collecting such data at two levels:

Level 1 Through Participatory Carbon Monitoring (PCM) involving participants in the National REDD+ Programme, activity data and emission factors can be collected in a statistically significant number of sample plots;

Level 2 For the comprehensive national data, activity data will be collected primarily through a satellite-based land monitoring system, while emission factors can be based on the data collected for the National Forest Inventory (NFI).

Level 1 data will be limited to basic forest mensuration on forest area and properties (e.g. DBH and tree species). Data collected will amount to a very large and statistically significant number of samples. Up to a million plots can be measured per year, assuming all households managing forests in Viet Nam are engaged as REDD+ participants. The Level 1 data will then be supplemented by Level 2 data, to estimate biomass per management unit and eco-zone.

OBJECTIVES OF PARTICIPATORY CARBON MONITORING (PCM)

There is a strong rationale for engaging local REDD+ participants in data collection, particularly for forests which are managed by local communities or individual households. PCM recognizes and capitalizes on the potential of local people's knowledge and skills. It is also considered an important mechanism for REDD+ for the following reasons and values it adds (Skutsch M. and McCall M.K. (2011)):

- Changes in carbon stocks in managed forests over a typical accounting period will likely be too small to be detected accurately by remote sensing from satellites. The National Forest Inventory will collect highly accurate data, but with insufficient resolution in space and time to properly capture local changes in biomass. Changes will need to be measured on the ground in a dense pattern to reach an acceptable accuracy.
- Mobilizing communities can be more cost-effective compared to the use of professional surveyors in conducting ground-based surveys.
- Community's understanding of carbon monitoring will work as an incentive to promote further improvements in forest management, thereby securing further carbon payments.
- Community's engagement in carbon monitoring will increase the likelihood that carbon payments received at the national level will be distributed down to communities at the local level.

Within the UN-REDD Viet Nam Programme, PCM is being explored as a methodology and piloted in two districts in Lam Dong Province.



VOICES FROM THE PCM PARTICIPANTS

A local villager from Village 14, Hoa Bac Commune, Di Linh District:

The theory of PCM sounded like PCM was going to be complex and difficult, but once we got to the forest and started the measurements, we were confident in using the tools, setting up the sample plots, measuring DBH, weight of shrubs, grass, herb, litter and collecting its samples. We hope that managing our own forests and providing basic forest information through participating in PCM will link to more income for us in the future.

A local officer of Forest Protection Department at Lam Ha District:

PCM is new for us. We are used to supporting local people only to carry out patrolling of their forests. Now we can help them monitor the changes of forest area and carbon stock. We think that PCM is useful to raise local people's awareness on forest management for environmental objectives. With revenue from UN-REDD (REDD+ payments), communities and households can engage in better forest protection and management.



KEY STEPS IN CONDUCTING PCM

The following are the main steps of the PCM exercise piloted in Lam Dong Province. Analysis of lessons learned will be undertaken to further improve the PCM model.

- Training of PCM facilitators and assisting technical staff: Local forest officers at the district level were identified as potential future PCM facilitators. Facilitators should be trained to be equipped with the technical and communication skills to effectively engage with people from different backgrounds and levels of understanding.
- Orientation session on PCM methods: An orientation session on PCM methods was conducted and "PCM teams" were formed with ten to fifteen people per team.
- PCM field survey: Each PCM team went to the field, located a sample plot with their GPS, and took basic forest measurements for each of the carbon pools. The data were recorded and later submitted to the facilitator. Data collected included:
 - Local name of tree;
 - Diameter at Breast Height (DBH) of all trees $\geq 6\text{cm}$;
 - Weight of sample of living biomass other than living trees (i.e. shrubs, herbs and grass);
 - Weight of litter sample;
 - Weight of dead wood sample;
 - Weight of soil sample.
- Follow-up session: The PCM facilitator should convene a meeting to review the collected data, and make preliminary data conversions into forest biomass and carbon.

NEXT STEPS IN FOR PCM UNDER THE UN-REDD VIET NAM PROGRAMME:

Based on the experienced gained during the PCM pilot exercise a PCM manual is being developed for training PCM facilitators and local technical staff on the technical aspects of PCM, and for the use during the PCM orientation sessions. During 2011, PCM will be implemented throughout Lam Ha and Di Linh districts in Lam Dong Province.