

PRACTICAL CARBON STOCK ESTIMATION

4TH WORKSHOP

Assessment and feedback of carbon stock estimation in 37 standard plots over 310.7 ha of HEPA natural forests after 22 years of regeneration (2002-2024) in the Ngan Pho upper watershed of Huong Son district, Ha Tinh province, Central Vietnam

HEPA: 17 -25 September 2024

Introduction:

- For realization of the legal documents, namely: Circular 28/2018/TT-BNNPTNT dated 16 November 2018 of the Ministry of Agriculture and Rural Development (MARD) which is amended and supplemented by Circular 13/2023/TT-BNNPTNT dated 30 November 2023 of the MARD prescribing sustainable forest management plan; Circular 33/2018/TT-BNNPTNT dated 16 November 2018 of the MARD which is amended and supplemented by Circular 16/2023/TT-BNNPTNT dated 15 December 2023 prescribing forest survey, inventory, and forest transition monitoring; Circular 23/2023/TT-BNNPTNT of the MARD prescribing measurement, reporting and verification of results of greenhouse gas emission mitigation and greenhouse gas inventory in the forestry sector, and
- Pursuant to Circular 8/2024/TT-BTNMT dated 31 July 2024 of the Ministry of Natural Resources and Environment prescribing land statistics, inventory, and mapping of current land use, consisting of 4 Chapters, 26 Articles, 25 pages, and 6 detailed Annexes for each land plot with 80 implementation guidelines for forest owners,

The Center for Human Ecological Study on Highland (CHESH) and the Social Policy and Ecology Research Institute (SPERI) have collaborated with independent consultants, Vietnamese and international scientists to conduct a project to review changes in area, boundaries, and status of forests, as well as standardize mapping techniques and digitalize various types of forests on the forest and land area in accordance with Decision 1230/5/6/2002/UBND of the Ha Tinh Provincial People's Committee.

Accordingly, CHESH, SPERI, and Consultancy on Development Institute (CODE) jointly conducted practical training sessions on skills in identifying random and representative standard plots, and criteria related to elevation, topography, and direction of solar, water, and wind energy flows. The first training course took place from 7 - 29 December 2023; the second from 3 - 8 January 2024; the third from 6 -13 April 2024; and the fourth – the practical training course on identifying random and representative standard plots, applying Global Positioning System (GPS) technology, and skills in measurements and calculation of carbon stock over 310.7 hectares titled “*Application of methods for calculating carbon stock in above-ground biomass*” which takes place from 17 – 25 September 2024.

Objectives:

- Forest owners, who have involved in carbon stock calculation from 2023-2024, meet to follow up the results of carbon stock in above-ground biomass in 37 calculated standard plots of HEPA;

Workshop on assessment and feedback of carbon stock estimation in 37 standard plots over 310.7 ha of HEPA forest

- Have a series of questions raised by forest owners based on the measurement results to further re-train them in standard plot determination, measurement and calculation of carbon stock, and calculation of equivalent CO₂ absorbed by their own forests;
- Accordingly, forest owners become confident to understand and calculate carbon stock in their own forests, ensuring that they are empowered to understand the value of their forest trees in the forest carbon credit trading mechanism without being exploited by unethical companies.

Methodology:

- Forest owners are grouped based on the 2023-2024 field survey list, and equipped with necessary tools to conduct further re-verification and re-assessment;
- Groups discuss at the forest sites and in the rooms, and rewrite reports for sharing during the overall assessment and feedback session;
- Recommend solutions to changes in forest boundaries, area and current status, and technical inadequacies due to forest boundary demarcation in the past;
- Recommend strategies to replicate the forest co-governance model among forest owners in the carbon credit market mechanism;
- Recommend solutions to natural regeneration of tropical rainforests in the watersheds, as well as strategies to gradually phase out industrial acacia plantations on over 100,000 ha in Ha Tinh province.

Outputs:

1. Have detailed indicators through questionnaires from forest owners who directly participated in the practical training on measurement and calculation of carbon stock in above-ground biomass over 310.7 ha of the HEPA forest in the Ngan Pho River upper watershed;
2. Have a photobook summarizing the entire process of approaching, measuring, calculating, and documenting carbon stock in above-ground biomass of 37 standard plots over 310.7 ha of the HEPA forest.
3. Have a documentary film about the entire process of carbon stock in above-ground biomass measurement: 1) Methods for determining random and representative standard plots; 2) Methods for determining direction, elevation, slope, topography, vegetation diversity, diameter class, etc. 3) Application and comparison of scientific formulas for selecting an optimal formula; 4) Recommendations for natural forest restoration solutions and methods for handling boundary and area changes.

Participants:

1. Forest owners in the upper watershed area who have been supported by SPERI and CHESH in implementing the FLA program since 2000;
2. Representatives from the Cadastral Office and Natural Resources and Environment Office of the communes where forest owners have been allocated forest under the FLA program facilitated and supported by CHESH and SPERI since 2000;

3. Representatives from local authorities of the communes and district where forest owners have received land use right certificates with the support of SPERI and CHESH since 2000;
4. Representatives from Protection Forest Management Boards of the communes and district where forest owners have received land use right certificates under Decree 163/NĐ-CP/1999;
5. Representatives from the local television agency of the communes and district that are interested in the green economy development strategy;
6. Representatives from the local Forest Rangers of the communes and district where forest owners are participating in the training course on carbon stock measurement and calculation skills, and solutions to gradual industrial acacia reduction;
7. Representatives from University of Forestry and National Economics University.

Time:

- Forest owners will gather at HEPA from 15 - 22 September 2024
- Representatives from relevant departments and authorities will be present at HEPA on 23 September 2024
- Forest owners will continue working on 24 and 25 September to finalize assessment forms and follow-up action plans for each forest owner, which will be incorporated into an overall action plan of the entire forest owners network. This plan aims to expand this knowledge and capacity building program on natural forest carbon stock assessment and forest trees' CO₂ sequestration to the entire key farmers network in the watershed areas that have been allocated forest and land under the FLA program towards a voluntary domestic carbon credit market (2025-2026) and a mandatory carbon credit market after 2027.
- Invitations and detailed lists of invitees (attached) will sent to the HEPA office for participant's temporary residence registration before the field trip and workshop.

Working schedule:

TT	Description	Participants	Methodology	Timeline
1	Forest owners from provinces gather in HEPA	Provinces of Quang Binh, Ha Tinh, Ha Tay, Lao Cai	Forest owners are either divided into groups same as their previous groups (for measurement of 37 standard plots conducted earlier) or swapped groups.	Arrive at HEPA on 15 & 16 September
2	Group meetings to assign specific responsibilities and elect group leader, secretary, and supervisor; check field tools, notebooks, maps, field equipment, and take group photos.	Forest owners	Groups swap members and standard plots as optional	17 September
3	3 groups heading east and north covering 9 standard plots	Forest owners, independent consultants and SPERI experts	Groups work actively.	18 September
4	3 groups heading southwest covering 9 standard plots	Forest owners can swap plots as needed	Fieldwork assignments are determined by forest owners based on requirements, subject to the approval of the head coordinator	19 September
5	3 groups heading northwest covering 9 standard plots	Forest owners	Forest owners are either kept in their previous groups (during the measurement of 37 standard plots) or switched groups.	20 September
6	3 groups heading southeast covering 9 standard plots	Forest owners	Forest owners are either kept in their previous groups or swapped groups	21 September
7	All groups gather to present assessment results, and propose solutions	Gathering in the HEPA big meeting hall	Each group's presentation based on the provided assessment template	22 September
8	Workshop comprehensive review and assessment	Forest owners and workshop participants	<ol style="list-style-type: none"> 1. Opening remarks by Tran Quoc Viet and Le Van Ka (8.30 AM) 2. Scientific report on water volume per hectare per year by Dr. Nguyen Van Sy 3. Scientific reports on application of methods for carbon stock calculation by Le Hong Giang, Truong Cao Hung, Lê Van Ka) (8.45 AM – 9.30 AM) 4. Reports on boundary changes by Truong Cao Hung and Le Van Ka (9.30 AM - 10.00 AM) 5. Report on HEPA history of transforming from extremely poor and severely degraded post-exploitation forest area in 2002 by Nguyen Khac Thu and Tran Quoc Viet (10.00 AM- 10.30 AM) 6. Tea break 7. Discussion for recommendations and solutions (11.00 AM -11.30 AM) 8. Lunch time. Continued evaluation by forest owners in the afternoon time 	23 September
9	Forest owners propose priorities of watersheds and the continuation of the TOT on carbon and carbon credits of the watersheds.	Forest owners	The follow-up action plan is to replace acacia with native species and medicinal herbal plants under canopy, and to establish native plants nurseries at forest owners' sites	24 & 25 Sept
10	Complete reports and evaluation form	Forest owners	Complete the payment process and systematize all documentation related to the assessment and feedback mission at HEPA	September 25, 2024

