



REDD+ Himalaya Project in Bhutan

Focus Area and Summary

ICIMOD's REDD+ Initiative work in Bhutan through its REDD+ Himalaya Project contributes to Bhutan's REDD+ Readiness Programme. It complements the ongoing REDD+ Readiness Preparation Programme funded by the Forest Carbon Partnership Facility (FCPF) through the World Bank.

REDD+ Himalaya's work in Bhutan covers major components of REDD+ readiness such as the National Forest Inventory (NFI) structures that include quality assurance and quality control (QA/QC) exercises. The National Forest Inventory aims to assess the forest carbon stock of Bhutan.

The Initiative also supports the development of an aboveground biomass estimation equation for 20 important tree species. These estimates will be used to generate carbon stock figures. To support this work, the Initiative developed a laboratory manual for aboveground understory and soil organic carbon. The Initiative has also prepared a comprehensive dendrochronology (tree core) manual. The manual records procedures used to collect and study tree cores to measure tree growth rates. Such knowledge is essential for improving sustainable forest management practices in the country.



On behalf of:



of the Federal Republic of Germany

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Biomass allometric models for 18 tree species and two general models have been developed and endorsed by the Department of Forests and Park Management. These models have been applied to NFI data to estimate forest biomass and carbon stock in Bhutan and to estimate emissions from deforestations and emission reporting ability, thus fulfilling monitoring, reporting, and verification (MRV) requirements as part of the REDD readiness process.

Ongoing Activities

ICIMOD's REDD+ Initiative in Bhutan aims to achieve the following two outcomes:

Outcome 1: Develop carbon calculation, allometric equation, modelling, and forecasting methods relating to forest biomass and carbon, and database systems supporting MRV

Outcome 2: Make data on carbon stock and biomass available and ensure use to inform decision-making processes

Since Bhutan's REDD+ Himalaya Project forms an integral part of the overall REDD+ programme in Bhutan, the progress – in terms of activities implemented both within the REDD+ Himalaya Project and the overall REDD+ programme – has been significant as evidenced by the fact that Bhutan is on its way to becoming a REDD+ ready country by 2018.

The REDD+ Himalaya Project has achieved the following three specific outputs in Bhutan:

Output 1: Enhance human resources – for periodic measurement, monitoring, reporting, and verification, including remote sensing (RS) and geographic information system (GIS), allometric equations, and database management system (DBMS)

- Capacity-building activities were carried out to build capacity to execute REDD+ activities.
- Since February 2018, a series of trainings and workshops have been conducted on biomass modelling for relevant officials at the Ugyen Wangchuk Institute for Conservation and Environmental Research and Forest Resources Management Division (FRMD).
- In May 2017, a training workshop on the establishment of forest reference emission levels (FREL) for Bhutan was conducted for the NFI and GIS teams.

Output 2: Empower local communities to participate effectively in local level REDD+ activities

- In collaboration with the Social Forestry and Extension Division of the Department of Forests and Park Management, the REDD+ Himalaya Project organized a workshop on strengthening monitoring of community forest management in Bhutan – particularly in the nine community forests (CFs) where the Food and Agriculture Organization (FAO) Technical Cooperation Programme (TCP) Project is integrating concepts of forest carbon in CF management. Participants included representatives from forestry field offices in concerned areas and CF management group members. The training focused on improving growing stock in CFs through Sustainable Forest Management (SFM) and a strong monitoring system. The participants were also introduced to the concepts of forest carbon stock in relation to climate change and of SFM and its benefits.

Output 3: Generate, document, and effectively communicate information on NFI, biomass, and carbon

- Data analysis of NFI has been completed. Volume I of the NFI Report has been published and work on Volume II is ongoing. The second volume will contain information on carbon stock, biodiversity, and forest health.
- Laboratory manuals for dendrochronology and above ground understory and soil organic carbon documentation have been developed.

Partner

- Forest Resources Management Division (FRMD), Department of Forest and Park Services, Ministry of Agriculture and Forests

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Way Forward

The REDD+ Himalaya Project has been designed to complement Bhutan's REDD readiness programme. The FRMD coordinates all REDD+ Himalaya Project activities in line with the government's REDD+ initiatives as outlined in Bhutan's eleventh Five Year Plan.

The project ends in December 2018 since Bhutan has achieved all prerequisites for the REDD preparatory phase.