

## Measurement, Reporting and Verification for REDD+

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Photos: Inge Jonckheere



# MRV for REDD+ in Tanzania

## CAPACITY BUILDING FOR MRV

The UN-REDD Programme works together with the Ministry of Natural Resources and Tourism (MNRT), Forestry and Beekeeping UN-REDD works towards “*Increased capacity for capturing REDD elements within National Monitoring, Assessment, Reporting and Verification Systems (MRV)*”.

The basic elements for a national MRV system need to be developed in accordance with the guidance and guidelines of the IPCC. Therefore the elements focused on are Satellite Monitoring System, National Forest Inventory, and Green House Gas Inventory.

## NATIONAL FOREST INVENTORY DATA

In collaboration with the Forestry and Beekeeping Division, the UN-REDD programme will develop an approach to use the data from the National Forest Inventory (NFI) for the estimation of carbon stocks and determination of the reference emission levels for the country.

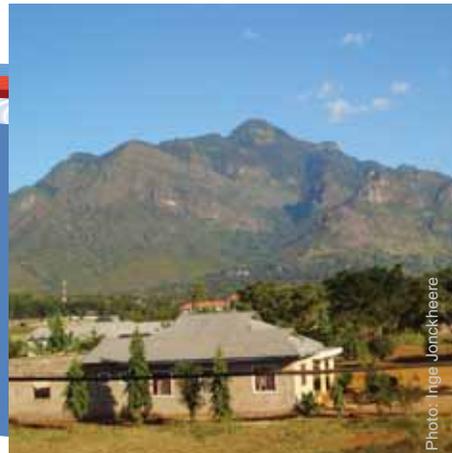
The protocol for carbon measurements at the field level for the NFI has already improved. This improved protocol allow assessing the forest carbon content according to the IPCC LULUCF. Experts will use the data to calculate Emission Factors.

## NATIONAL SATELLITE FOREST MONITORING SYSTEM

The UN-REDD programme aims to support the establishment of a robust monitoring system building on existing experience of the Ministry of Natural Resources and Tourism. Satellite imagery will be used to monitor land use change. In addition, the global UN-REDD programme offers possibilities for collaboration with various institutions in different countries, such as the National Institute for Space Research (INPE) in Brazil. This specific collaboration provides the opportunity among interested REDD+ countries to learn and provide experience about setting up an autonomous national satellite forest monitoring system that will also be valuable as a tool to report GHG emissions following the IPCC Guidelines and Guidance. Such sharing between countries can benefit Tanzania and other countries.

## GREEN HOUSE GAS INVENTORY

The National Forest Inventory and the Satellite Monitoring System together provide the information required for a Green House Gas Inventory for Tanzania. The resulting information will be shared and linked with other activities implemented in the country, such as establishment of the National Carbon Monitoring Centre (NCMC), Tanzanian National Carbon Accounting System (NCAS-T) and others.



## REDD+ IN TANZANIA

Tanzania has a total of 35.3 million hectares of forests and woodlands, rich in biodiversity and in carbon. Carbon stored in trees plays an important role in climate change mitigation. When emitted during deforestation or forest degradation, the carbon contributes to anthropogenic climate change. Through the current discussions under the United Nations Framework Convention on Climate Change (UNFCCC) there is a possibility for developing countries to receive financial benefits for Reducing Emissions from Deforestation and Forest Degradation; forest conservation, sustainable management of forests and enhancement of forest carbon stocks (REDD+). As REDD+ is a result-based mechanism, countries will be required to quantify their achievements in REDD+. Therefore, it is a key priority for countries to establish robust and transparent forest carbon monitoring systems.

## FOREST CARBON MONITORING

The most commonly debated subject under forest carbon monitoring is **Measurement, Reporting and Verification (MRV)** of forest carbon. That is, how can we reliably account for the amount of forest carbon, including changes over time? This is the core monitoring challenge in REDD+, well-defined in GHG reporting standards and the Intergovernmental Panel on Climate Change (IPCC) guidelines, and addressing the direct objective of REDD+. The main focus is on the national level reporting to the UNFCCC, and the subsequent, anticipated accounting of valuable carbon credits for the country as a whole.