UN-REDD PROGRAMME

FAO UNDP UNEP

KEY-ISSUES IN MRV FOR REDD+

COUNTRY DRIVEN PROCESS: each country has to establish an autonomous MRV system. The national MRV system is a crucial element of REDD+ implementation.

LEARNING-BY-DOING APPROACH: the development of an MRV system has to be based on in-country human resources being involved in the MRV development process from the very beginning and gradually improving skills whilst progressing towards its full implementation.

SAFEGUARDS: the inclusion of the 'REDD+ Safeguards' in the monitoring system improves the consideration of biodiversity, governance and the inclusion of local communities.

CONSISTENCY: an MRV system should provide estimates that are consistent across years. Under certain circumstances, estimates generated from different methodologies in different years can be considered consistent if they have been calculated in a transparent manner.

TRANSPARENCY: all the data and the methodologies used in the MRV system should be clearly explained and appropriately documented, so that anyone can verify their correctness.

COMPARABILITY: estimates of emissions and removals should be comparable among different forest owners and among Parties. For this purpose, forest owners/ Parties should follow the methodologies and standard formats provided by the IPCC and agreed within the UNFCCC for compiling and reporting inventories.

CONSERVATIVENESS: when completeness or accuracy of estimates cannot be achieved, the reduction of emissions should not be overestimated, or at least the risk of overestimation should be minimized.

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UN-REDD PROGRAMME TANZANIA IS FACILITATED BY FAO, UNDP AND UNEP
http://www.un-redd.org

UN-REDD PROGRAMME

TANZANIA

MRV for REDD+ Basic Concepts

FOREST CARBON MONITORING

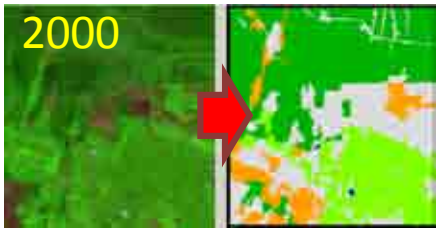
The most commonly debated subject under forest carbon monitoring is **Measurement, Reporting and Verification (MRV)** of forest carbon. That is, how can we reliably account for the amount of forest carbon, including changes over time?

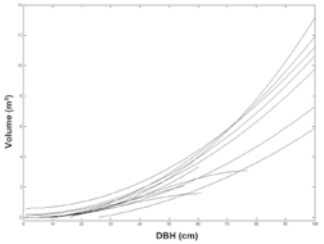
This is the core monitoring challenge in REDD+, well-defined in GHG reporting standards and the Inter-governmental Panel on Climate Change (IPCC) guidelines, and addressing the direct objective of REDD+. The main focus is on the national level reporting to the UNFCCC, and the subsequent, anticipated accounting of valuable carbon credits for the country as a whole.

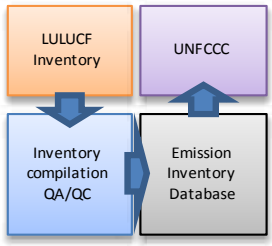
Photos: Inge Jonckheere

TANZANIA

ABC of MRV



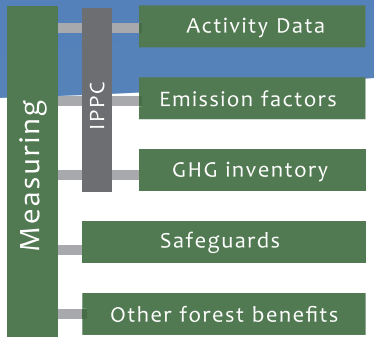




SATELLITE MONITORING SYSTEM X **EMISSION FACTORS TO BE DEVELOPED FROM NFI** = **GHG INVENTORY**

MEASUREMENT

Refers to information on the area extent to which a human activity takes place in forests (activity data – AD) with coefficients that quantify the emissions or removals per unit activity (emission factors – EF). For REDD+ this translates into measurements of forest area and area change (AD) and forest carbon stock and carbon stock changes (EF). Together, this information provides the basis for compiling a greenhouse gases (GHGs) inventory. Countries may also be required to measure safeguards indicators and other forest benefits.



Assessing the land area covered by the different forest classes, will be done with satellite monitoring.

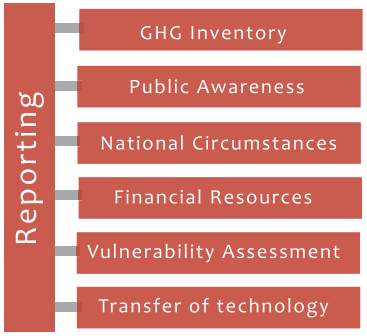
Measurements at different points in time are used to estimate forest area changes.

Assessing biomass, carbon stocks and emission factors. The data will be derived from national forest inventory data, collected through NAFORMA, the first nation-wide forest inventory for Tanzania.

It is based on the data collected from the national forest inventory, the satellite monitoring systems and can be done using the templates developed through the UNFCCC processes.

REPORTING

Implies the compilation and availability of national data and statistics for information in the format of a GHG inventory. Reporting requirements to the UNFCCC (National Communications) may cover issues other than just those subject to measurement. The core elements of the national communications are information on emissions and removals of GHGs and details of the activities a country has undertaken to fulfill its commitments under UNFCCC.



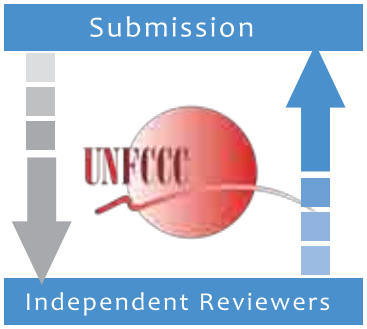
The data are stored and harmonized into a REDD+ database. The data on forest land area are used to develop matrices representing the changes between land uses and within the forest land area.

The data on carbon stocks and carbon stock changes will be used to develop emission factors.

The data on land use changes and changes in forest uses are integrated with their respective emission factors to establish the GHG inventory. The data are used to report to UNFCCC.

VERIFICATION

Refers to the process of independently checking the accuracy and reliability of reported information or the procedures used to generate information. This verification is done by a totally independent and external review. The UNFCCC Secretariat through its experts will verify the data reported. The verification of countries' actions depends on 3 factors: 1) the degree to which reported data is capable of being verified; 2) the actors conducting the verification; and 3) the way in which verification is performed.



The verification process concerns all the variables that were reported under REDD+. The verification can be done by several institutions including civil society. All the data, including the satellite and national forest inventory data will have to be made available in order to allow the verification of the GHG inventory. The different means of verification are: through interviews with key government officials and national NGOs, reports, media reports, training materials, etc.