



Good Practice Series on Transparency

Malawi's Development of Specific Emission Factors and Activity Data in the Forestry and Land Use (FOLU) Subsector

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Background

Malawi developed specific emission factors and activity data for the Forestry and Land Use (FOLU) sector to address data gaps documented in the previous reporting to the UNFCCC.

Malawi's latest national greenhouse gas inventory data estimated total greenhouse (GHG) emissions, excluding the FOLU sector, at 9.33 million tonnes of carbon dioxide equivalent (tCO₂e) for 2017, as presented in the first Biennial Update Report (BUR) and the updated Nationally Determined Contribution (NDC). The NDC notes that the FOLU sources could be included in future contributions, subject to improved data availability and ongoing development in the accuracy of their quantification within the national GHG inventory.

Challenges Addressed

Malawi's efforts to implement a national transparency system are aimed at generating more accurate and up-to-date data on emissions for all sectors. Specifically, there was an urgent need to develop both specific emission factors and activity data for the FOLU sector due to a data gap. Malawi's Climate Change Monitoring and Evaluation System has not been fully operationalized, and data is therefore still collected largely on an ad hoc and manual basis.

Approach

Malawi used the Forestry Inventory (FI) and the Satellite Land Monitoring System (SLMS) to develop specific emission factors to collect activity data for the FOLU sector.

Country Transparency at a Glance

Responsible Institution: Malawi Climate Transparency Unit – housed under the Environmental Affairs Department (EAD) and is the UNFCCC Focal Point.

NCs: 3

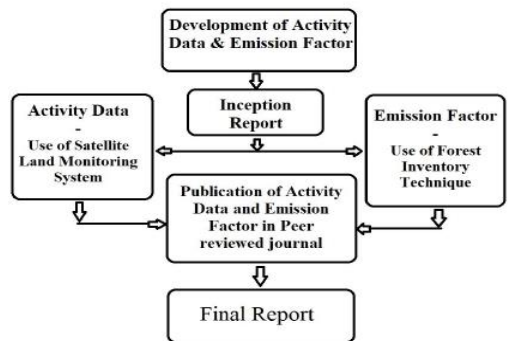
BURs: 1

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TAR+:1

The emission factors were developed in collaboration with the Department of Research, Malawi Assemblies of God University, and the Department of Physical Planning and Land Surveying, Malawi University of Business and Applied Sciences, Blantyre, Malawi. The team conducted consultations with key stakeholders and validated the results with the GHG sector working group before publication.

Conceptual Framework and Approach



Source: Inception report submitted to the Director of Environmental Affairs
Environmental Affairs Department. Date:6th March 2023

A	Institutional Arrangements
R	Information Systems & Technologies
E	Data Collection & Management
A	

GHG Inventory	Loss & Damage
NDC Tracking	Support Tracking
Adaptation	Gender

Success Factors

The collection of the activity data and the development of emission factors for the FOLU subsector in Malawi were made possible by the following factors:

- Availability of financial resources from the national CBIT project
- Availability of the government team that provided support in reviewing and developing forest inventory methods and standard operating procedures.
- Availability of the institutional framework (GHG working group) for consultation and validation of the results, leading to the publishing in the scientific journal, the submission to the IPCC Emission Factors Database (EFDB) and obtaining registration for national specific factors.

Benefits of enhanced emission factors and activity data in Malawi

Accurate activity data and emission factors are critical for estimating greenhouse gas emissions and devising effective climate change mitigation strategies:

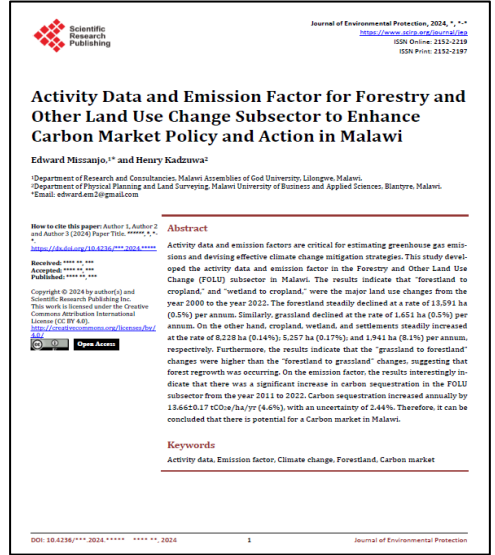
- The results will enable policymakers and stakeholders to make informed decisions, enhance climate change mitigation efforts, and promote sustainable land-use practices.
- The results will bolster Malawi's pathway to meeting the global standards and mechanisms of Reducing Emissions from Deforestation and Degradation (REDD+), helping the country receive the long-awaited carbon payments issued under the relevant carbon schemes.
- The results from the FOLU subsector will provide valuable insights into Malawi's carbon dynamics and emissions.
- The methodologies used in this development could serve as a template for other countries facing similar challenges in quantifying emissions from the FOLU subsector.

Further Areas of Improvement

The Government of Malawi will ensure improvement in the following areas:

- Enhance the capacity of academic institutions to support such studies in collaboration with government-mandated institutions. Currently, data is provided based on informal arrangements with the data providers.
- Develop a database for the collection and update of the activity data.
- Increase the number of personnel with capacity to support compiling activity data and development of emission factors.

A Paper Published on Activity data and Emissions Factors for the FOLU Sub-sector



Source: *Journal of Environmental Protection*, 2024

Read More

- Government of Malawi (2021). [Updated Nationally Determined Contributions](#)
- Government of Malawi (2021). [Malawi's First Biennial Update Report Malawi](#).
- Edward Missanjo et al. (2024). [Activity Data and Emission Factor for Forestry and Other Land Use Change Subsector to Enhance Carbon Market Policy and Action in Malawi](#).

