

Some Realities of Land Use and Land Cover Change (LULCC) Reporting in Central Africa

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Introduction: Central Africa, home to the Congo Basin, has garnered both international and national attention in regard to forest area mapping, forest biomass assessments, forest loss, and associated greenhouse gas emissions. The purpose of this poster is to present some key realities (mainly activity data and emission factors) from reporting documents used for international communication, particularly with the UNFCCC.

Countries and Main document	Activities Data & related	Emission factors& related	Comments
DRC BUR1, 2023	Forest Cover of 2000, 2010, 2014 Deforestation only Datta from DIAF, with support of JICA, WWF & FAO	- Aboveground and bellow growth biomass only - Chave et al. 2014 used for biomass -Emission factors (tCO2/Ha) related to different LULCC transitions identified	Use of Remote sensing. GFOI (2016) Twelve classes of land use/cover correlated to the IPPCC (2006) Guideline Use of “System for Earth Observation Data Access, Processing and Analysis for Land Monitoring” (SEPAL, https://sepal.io)
Congo Forest Reference Level NERF 1 (2024)	Forest cover of different periods and different sources (1990-2000; 2000-2010; 2000-2012; 2000-2014 ; 2014-2016 Deforestation and Forest degradation (Contextualised by a practical definition)	Above ground, below ground, and death wood biomass in different type of forest; Use of National Forestry Inventory 2009-2014 for Forest ecosystem, Emission factors (tC/ha) data collected by the Marien N'gouabi and research centre and IPCC Tier 1 for others, Several GHG: CO2, CH4, N2O	Land uses classes different from one map to another; No considerations of IPCC guidelines when studying forest losses; Emission factors (sometimes “tier 2”) from 3 rd ongoing national communication. Difficulties in getting some forest data (natural forest and fire)
Cameroon Revised NDC, 2021	Sector: Agriculture, Industries, Energy & Waste Data from the statistics department, and sectorial ministries/institutions in line with the SND 2030	Several GHG emissions: (CO2, CH4, N2O) and others (HFC, PCC & SF6) Use of IPCC (2006) and the IPCC Best Pratique Guidelines (2013)	Uses of Greenhouse-gases Abattement Costs Model (GACMO)

Conclusion and Next Steps: Various reporting situations are related to the multiple uses of UNFCCC/ IPCC tools and guidelines, as well as the challenges in collecting and processing activity data. These challenges affect the assessment of forest biomass, the utilization of remote sensing, and modeling tools at different levels.

Given the unique characteristics of the region, which includes hosting one of the largest continuous forests, the Congo Basin, spanning multiple countries, a coordinated approach is necessary to ensure that methodologies and tools for greenhouse gas assessments and reporting are used in a manner that aligns national reporting with global assessments more effectively.