Outline of the Presentation

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- Existing Systems for forest data in Uganda
- Towards ETF in Uganda
- Towards ETF, a Case of CBIT Forest Project
- NFMS & its contribution to NDC preparation
- What lessons learned
- Key messages
Background

- Uganda is a land locked country in East Africa, bordered by Kenya to the East, Tanzania to the South, Rwanda to the South West, Democratic Republic of Congo to the West and South-Sudan in the North.
- It has a total land area of 241,551 km², of which about 37,000 km² is open water (UNBS, 2009) and 2.42 million ha (2015) is forested with an estimated human population of 42.7 million people in 2018.
- Uganda defines a forest as “A minimum area of 1 Ha, minimum crown cover of 30% of trees able to attain a height of 4 metres”. This definition is under review given that technology is now available to capture forests up to less than 1 ha.
- Based on published data, forest cover lies at 12.4% (inventory in 2019 using satellite imagery of 2017).
- The latest information based on 2019 satellite imagery places the Forest cover to 13%.
- However, in most cases, the data is not readily available.
Forest cover trends in Uganda

1990

2000

2005

2010

2015

2017

2019

Legend
Forest
Non-Forest
Data not available

<table>
<thead>
<tr>
<th>Year</th>
<th>Forest Cover (Ha)</th>
<th>Land Area (Ha)</th>
<th>Forest %</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>4,491,758</td>
<td>23,896,707</td>
<td>18%</td>
</tr>
<tr>
<td>2005</td>
<td>3,396,347</td>
<td>20,416,477</td>
<td>16%</td>
</tr>
<tr>
<td>2010</td>
<td>2,299,113</td>
<td>20,406,085</td>
<td>11%</td>
</tr>
<tr>
<td>2015</td>
<td>3,386,989</td>
<td>20,409,330</td>
<td>16%</td>
</tr>
<tr>
<td>2017</td>
<td>2,957,263</td>
<td>20,409,330</td>
<td>11%</td>
</tr>
<tr>
<td>2019</td>
<td>2,701,694</td>
<td>20,409,330</td>
<td>11%</td>
</tr>
</tbody>
</table>

Disclaimer: This map is not an authority on the status of the Protected Areas or Administrative units. Representation of roads or lakes does not mean right of way.
Existing Systems for forest data in Uganda

- **NFMS**, Largely for measuring trends in forest cover and ERs/Carbon credits
- **NFMIS**, On farm operations, and Provides information for decision making, currently being deployed
- **NFA-Forest Management System** specific forest management issues on CFRs;
- **SIS**, under improvement
- **FLR MECHANISM data base**
- **MWE’s Water and Environment IS(WEIS)** currently being deployed
- **All the Systems are under one control at MWE, and this eases coordination efforts.**
Towards ETF in Uganda

- Support to institutionalization (MWE-FSSD and CCD, NFA, NEMA, UBOS) of National Forest Monitoring Systems (NFMS) for REDD+ in Uganda, that delivered the products below:
  ✓ The National Forest Inventory that shows Uganda’s efforts to improve estimation of the country’s forest biomass and associated carbon stock (4,600 Sample Plots measured).
  ✓ 2 Land Use Land Cover Maps (2015 and 2017) produced at country level with 13 LULC classes and used for country planning and for land uses changes estimates.
  ✓ Forest change estimates using LULC maps and remote sensing techniques to estimate the deforestation between 2015-2017. This work helped the preparation of the technical annex to the Biennial Updated Report (BUR) (https://unfccc.int/documents/200519)
Towards ETF in Uganda cont’d

✓ Institutional Arrangements and activities proposed for the NFMS, and
recommendations and best practices on how to pursue the activities were
highlighted.

✓ Forest Degradation first assessment (2016 and 2019) -

✓ The NFMS portal: http://uganda-nfms.org/ includes all the layer of
information produced.

✓ Uganda first African country to voluntarily share Redd+ Results as a Technical
annex to the BUR, 2020
Towards ETF in Uganda cont’d

✔ Partnered with Jane Goodall Institute to Pilot gender responsive community-led forest monitoring initiative and integrate data into national MRV system in 5 parishes in Hoima District, Uganda

✔ Partnered with the National Agricultural Research Institute (NARO) to undertake National Soil Organic Carbon Stocks (collected soils samples with special attention for forest and forest changed areas), quantified national soil carbon stocks with indicative litter information under the Uganda forest and developed datasets and tools for assessment of volumetric soil organic carbon stocks.
Towards ETF in Uganda: The case of the CBIT Forest Project

➢ As countries move towards the requirement to submit Biennial Transparency Reports under the UNFCCC, efforts both in country and with external support are being made to ready partner countries. With support from the FAO through a GEF funded CBIT Project (2020-2022), Uganda was able to do the following:

✓ Calculation of Emission Factors for Forest Plantation

✓ Capacity Building for 20 experts was undertaken in data analysis, assessment and reporting

✓ Data (NFMS Datasets) was securely stored and organized in a Network Attached Storage (NAS)

✓ To support the function of the NFMS, a process to initiate preparation of data sharing protocol and metadata descriptors of the NFMS data was started and is ongoing
Towards ETF in Uganda: The case of the CBIT Forest Project cont’d

- NFMS assessment tool employed to determine operationalisation gaps for the NFMS
- Knowledge sharing webinars, MOOC online trainings & SEPAL Trainings
- Uganda is the first tropical country to make available its NFI through the Food and Agriculture Microdata Catalogue (FAM) platform that host the microdata, metadata and all the relevant information about the NFI. (Link: https://www.fao.org/uganda/news/detail-events/ar/c/1469093/, dataset: https://microdata.fao.org/index.php/catalog/2047).
- So far, requests and use of the NFI data by different institutions and people from across countries including Uganda( Ethiopia, Italy, Denmark, Mexico, Australia and Finland) for different purposes.
NFMS and its contribution to NDC preparation

- The NFMS services cross cutting functions
- The activity data stored in the NFMS forms the building blocks of the NFMS
- The Inventory data, when integrated with the LULC(1990-2017) supports the computation of the Emission Factors that are core for NDC computations and projections
- The LULC and statistics change data provides an input to the AFOLU application tool with reference to the historical data (2005, 2010 & 2015)
- The Third National Communication submitted to the UNFCCC also benefits from the outcomes of the NFMS
- The NDC’s priority mitigation actions are options of the National REDD+ Strategy & AP (https://www.mwe.go.ug/library/updatednationallydeterminedcontributions)
Lessons learned as we move towards ETF in Uganda

- Advancement in new technologies for data acquisition and analysis calls for continued capacity building.
- In Country efforts (policy & legal regime improvements) to improve transparency to complement work done with external support, and available capacities are key.
- Efforts to build trust between and within institutions for Data sharing through dialoguing and building meaningful collaborations enhances implementation of the ETF requirements.
- Lack of data sharing and data management protocols hinders efforts to enhance transparency for forest data.
- Assessing impact of access and use of forest data from the NFMS is critical.
Key Messages

- NFMS should promote cross sectoral coordination and partnerships
- Communicating and disseminating NFMS data to potential users is powerful
- Updating available data is critical to enhance transparency (e.g., Updating FREL)
- Continued Knowledge exchange and capacity building in country or between different countries promotes learning and improvements
Thank you

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