

2023 Growth Monitoring Season kickoff

From January to March 2023 Form Ghana will measure all Permanent sample plots (PSP) to measure growth and calculate all carbon sequestered in the last 2 years.



Photo 1 . CMO team with some of Form Ghana staff

Thirty experienced Form Ghana personnel will measure more than 1800 plots in this period.

This a critical operation for Form Ghana not only to measure carbon sequestration but also for long term planning.

As such a team from CMO Technical services conducted a site visit in January 2023. This included e advisors with experience in planning, growth monitoring and carbon.

SUMMARY OF SITE VISITS TO FORM GHANA'S BEREKUM AND AKUMADAN MANAGEMENT UNITS

The CMO's Technical services division has been appointed to provide technical support in the holistic management of the modern planning function for Form Ghana. A site visit

by CMO's forest planning manager and forest management associate was conducted at the Berekum and Akumadan plantations.

The visit also included a preparation component for carbon verification process planned for in August 2023 (this was addressed in separate site visit report).

Aspects that were addressed in the planning site visit include; Form Ghana's spatial management and geographic system management, the plantation management and monitoring systems, the permanent sample plot system for collecting information on Form Ghana's biological asset (both Teak plantation and indigenous forest stands), the data collection and analysis processes for optimizing management processes such as silvicultural regimes, appraising the current enumerations teams field procedures and introducing new technologies such as the height meters. The visit was a learning experience for both CMO and Form Ghana personnel, it enabled inroads on how to address the gaps while leveraging on what is already working, profitable and context specific for Form Ghana.

Summary and way forward of the outcome – FOREST PLANNING

• Permanent Sample Plots monitoring teams – Berekum and Akumadan



Photo 2. Meeting the teams and discussing importance of accurate measurements

- Form Ghana has an extensive network of PSP plots and well-trained teams to carry out the data collection.

- With the teams we discussed the 4 main reasons why trees are measures (volume

quantification, integrated management, silvicultural prescriptions timing and growth and yield modelling)

- Discussed and addressed some of the challenges that the teams encounter while collecting data. These include, where to measure when it comes to diameter point issues, also how to locate the top of the tree when the tree has a broken top but a live side shoot. Measurement procedures was standardized across the Berekum and Akumadan teams.
- Vertex IV was introduced to the teams - for tree height measurements and circular plot setting.
- Discussed how teams record the remarks and comments with the plots, that is regarding – thinned trees, dead trees, coppice trees, wildlings, indigenous trees in the plots, remnant trees in old Teak stands. It is important that this procedure/protocol is clarified as it is the basis of tracking growth and yield parameters such as mortality and thinning responses using PSP data.



Photo 3. Calibrating equipment and training staff on the various types of equipment

- Data analysis procedure for the carbon verification monitoring report
- The factors for expansion of volume to biomass to carbon must remain as according to the monitoring report standards.

- The volume equation for teak and form factors for indigenous and Gmelina species must also be as according to the monitoring report.

- Dominant height is at 10% of the largest trees and not 20% as in Pine and Gum plantations.

- General data collection and analysis for the forest management

- The current PSP data collection process is ideal and efficient, especially on the suunto height instruments. It is a slower measuring process for an important reason. Each tree's DBH and height is recorded. The implication is that they are a substantial number of heights to be done accurately. There is no need to use the vertex for this operation. The newly purchased suunto height meters require that an eye level height is measured. They also give the percentage and angles to the top of the tree.

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