

STEPWISE CLIMATE SMART COCOA PILOTS IN THE COPE AND ADJUST CLIMATE IMPACT ZONES

By *Mustapha Alasan Dalaa; Rich Kofi Kofituo; Richard Asare*

Introduction

As part of efforts in developing a business case for investing in climate smart cocoa (CSC) practices, IITA has partnered with Public and Private sector organizations (PBC and CARGILL respectively) in the cocoa industry to co-learn on tailored made climate smart cocoa practices in Ghana. Collaboration agreement have been signed between IITA and the companies to run CSC pilots for a period of 12 months. The end goal is to introduce farmers to the CSC practices through a co-learning process and to co-generate CBA data on each CSC practice through the establishment of stepwise CSC Pilots in two cocoa climate impact zones. This is expected to enhance adoption and scaling-up of climate smart cocoa by the companies and other stakeholders in the cocoa industry.

CSC stepwise demonstration plot set up for PBC

The set up took place from the 16th to 23rd of November 2020 in PBC selected communities in the Cope and Adjust climate impact zones of Ghana. In the Cope zone, PBC selected Abotareye, Atialeve and Badukrom all in the Bonsu Nkwanta Cocoa district of Ghana. In the Adjust Zone, PBC selected Odumase No.2, Adanse Koforidua and Achiasewaa all in the New Edubiase cocoa District.



Fig 1.0: Picture of a demarcated and tagged matured CSC stepwise plot at Badukrom in the Cope Zone for PBC

CSC stepwise demonstration plot set up schedule for Cargill

Plot set up for Cargill took place in both the Cope and Adjust climatic impact zones of Ghana. This activity was carried out between 29th November to 9th December 2020. In the Cope zone, the team set up plots in Daboase, Kessekrom, Sefwi Asafo all in the Sefwi Wiawso cocoa District. In the Adjust zone, plot set up took place in Agogoso, Nyameyehene and Ahyiresu all in the Nyinahini cocoa district.



Fig 2.0. Picture of a demarcated and tagged matured CSC Stepwise plot at Agogoso in the Adjust Zone for Cargill

For both companies, several plots were inspected for new establishments plots and mature cocoa plots and the suitable ones were selected and used for the set-up for each of the plots. 18 plots were demarcated and set up for each company. 3 plots in every community i.e., 1 New establishment, 1 New establishment + irrigation and 1 matured cocoa plot.

Procedure for setting up of CSC stepwise demonstration plots in the Cope and Adjust Climate impact zones of PBC and Cargill

In all the twelve (12) communities; plot selection, plot demarcation and set up of rain gauge took place. The plot selection entails moving within the partner pre-selected plot and checking to ensure it meets the required age range of 4-15 years for a mature plot and below 2 years for a new establishment. In addition, there were checks to ensure the cocoa is free from diseases, checked farms of plot si bigger than at least 1 acre and is not on an area of high elevation. The final yardstick is to ensure the plot is at an area that most farmers pass to their farms. This is to increase the level of interest in CSC activities/training for passer-by cocoa farmers as the difference in the plots in terms of performance will be evident for all to see. The plot demarcation for matured plot entails measurement of 21m x 21m in four different segments for a matured plot (inter-plot gap of 5m was allowed) and an extra one plot demarcated for a control plot. Under the new establishment, there are two segments measured using same dimension of 21mx21m, one for the main plot and the other used as control plot.

Each of these plots have 10 cocoa trees tagged with unique colors with the list of practices being carried out legibly written on the tags. On plot 1 (step 1) we have weeding, pruning and cultural management practices, on plot 2 (step 2) we have all practices on plot 1 and fungicide and insecticide application, on plot 3 (step 3) we have all practices on plot 2 and fertility management practices like application of animal manure, on plot 4 (step 4) we have all practices on plot 3 and fertilizer application. The new establishments have improvised irrigation system using bottles fixed to pegs to ensure gradual release of water unto the seedlings when implementation begins.



Fig 3.0. Picture of a new establishment plot with a fixed local drip irrigation device at Odumase No.2 in the Adjust zone for PBC

Rain gauges were fixed in each of the twelve (12) communities to help collect information on rainfall within each community. Booklets for recording the quantity of rainfall was shared to each extension agent in the 12 communities



Fig 4.0. Picture of an installed rain gauge at Abotareye in the Cope Zone for PBC

Deliverable for PBC and Cargill Extension agents and IITA staff

All extension agents have been tasked to submit names of individuals who will oversee data collection on the plots and on the rain gauges. Even if it is the extension agents themselves, they are to submit their names.

IITA will provide a well-designed signpost detailing all Stepwise CSC practices in each community.

Conclusion

Preliminary results from the demonstration plots show a positive impact of the stepwise climate smart cocoa practices. A scale up of CSC is encouraged in more communities across the cocoa growing belt to generate for more evidence to facilitate adoption of the Stepwise Approach.

For more Information, Contact:

CCAFS Cocoa Team
+233 303 931 023

Mustapha Alasan Dalaa
M.Dalaa@cgiar.org

Rich Kofi Kofituo
R.Kofituo@cgiar.org

Richard Asare
R.Asare@cgiar.org



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