

IMPACT BRIEF 03

WIENCO Ltd. - Cocoa Outgrowers Scheme, Ghana

Background

In line with its mandate of positively impacting smallholder farmers in Africa, AATIF assesses its progress and impact on four key outcome areas including (i) agricultural production and productivity; (ii) employment; (iii) income and; (iv) living and working conditions. As part of its research efforts, AATIF commissioned a comprehensive impact evaluation of one its investments, Wienco Ghana. AATIF extended a loan for a 5-year tenor in 2013 to be used for (a) pre-financing inputs for smallholder farmers of associated outgrower schemes and; (b) acquisition of cotton and maize from Wienco associated outgrowers. The impact evaluation will provide insight on the causal link between participating in Wienco supported outgrower arrangement, namely the Cocoa Abrabopa Association (CAA) for cocoa farmers and improvements in the main outcome areas as mentioned above. The baseline data was collected in 2016. Key findings from the baseline survey will help in the preparation of the mid-term (2018) and final evaluation (2020). The baseline survey - that cannot be used to rigorously assess impact - compares three groups¹: i) 'CAA's farmers (current CAA outgrowers), ii) 'drop-out farmers' (former CAA outgrowers) and iii) 'comparison farmers' (cocoa farmers who have never been CAA outgrowers).



Photo taken by AATIF Compliance Advisor during field visit

Key Findings

The cocoa baseline report observed differences between participating and non-participating cocoa farmers. However, these cannot yet be interpreted as causal impacts of the CAA scheme. At best, they can – together with qualitative evidence from the field – be taken as indicative of potential positive impacts. Below is a summary of the findings:

1. Cocoa production and productivity levels:

As for general socio-demographic characteristics of the farmers, the groups studied are largely similar and use, on average, between 11 and 12.5 acres of land (> 80% of total land) for cocoa production. The cultivation of food crops and other cash crops plays only a minor role in both participating and non-participating groups, at between 1.2% and 3.4% of land use.

There is a small marginally significant difference between CAA members and the control group in terms of cocoa variety planted. On 8% of the CAA members' plots Amelonado variety is planted whereas the non-CAA members planted this traditional variety on 11% percent of their plots. The most remarkable differences between CAA and other farmers can be observed with respect to fertilizer application. On 70% of the CAA-registered plots, CAA members apply fertilizer, much more than on the non-registered plots (only 20%) and still considerably more than non-CAA farmers who apply fertilizer only on about 40% of their plots.

¹ We randomly sampled control cocoa farmers (from villages with and without CAA presence). The impact evaluation will rely – once mid-line data is available – on a differences-in-differences design that will address time-invariant selection biases. The evaluation will also assess the impact of the duration of program participation. Finally, matching on pre-program farmer characteristics will be used to minimize biased impact estimates.

The data indicates the application of more sophisticated agricultural production techniques on plots of farmers registered with CAA in comparison to non-registered farmers (e.g. more CAA farmers prune the cocoa trees, adequately deal with diseased fruits and plant shade trees). In addition, crop pests or diseases are less common in the CAA farmers' group. Qualitative findings suggest that this could be caused by the training on good agricultural practices provided by CAA.

Yields are much higher on CAA-registered plots than on non-registered plots of both members and non-members (260 kg/acre for CAA farmers, 141 kg/acre for drop-out farmers, 102 kg/acre for comparison farmers). This is likely to be associated with the scheme and improved management and input use. However, we should caution against attributing causality to what is likely a result of selection effect.

2. Employment

On average, CAA farmers work significantly more on their farms compared to non-CAA farmers. They also hire, on average, significantly more workers than the other two groups. CAA farmers use about twice as much labour of "Nnoboa" workers (household exchange labour) than drop-out farmers and about three times as much as comparison farmers. CAA farmers on average pay more per month to hired labourers as compared to non-CAA farmers. According to village chiefs, in most villages labour demand has not significantly changed with CAA.

3. Farm and overall household income

Higher yields translate into higher income since cocoa income dominates the income portfolio of the sampled farmers. Gross production value is highest for CAA farmers with about 8,736 GHS (about 1,100 GHS lower for drop-out farmers, about 4,200 GHS lower for comparison farmers). As costs are highest for CAA farmers the (non-significant) difference in net cocoa income between members and drop-outs is about 800 GHS (about 200 Euro at current exchange rates at the time). For comparison farmers, net cocoa income is roughly half of that of CAA farmers.

There are considerable gender differences in income from cocoa, which seem to be driven at least partly by unequal access to land.

4. Living conditions, well-being and capabilities

CAA households are wealthier when considering owned working capital (not including agricultural land) and other household assets than comparison households. The income differences between the groups translate into less pronounced differences in non-food expenditure. Food expenditure seems to be somewhat lower for CAA and dropout households, but this finding requires additional more robust analysis.

CAA groups seem to be located in villages that are somewhat less served with infrastructure and government services (markets, banks or microfinance institutions, elementary schools, secondary schools, pharmacies, agricultural extension offices).

5. Risk exposure, mitigation and coping strategies

The incidence of shocks, in particular drought, unusual timing of rainfall, crop pests or a price increase of agricultural inputs, are very common among all farmers (75 to 80% of farmers). About 60 % of all studied households report that they have been affected by a drought and between 22 % and 32 % of households have been additionally affected by unusual timing of rainfall. For the latter, CAA and comparison households were significantly more often affected compared to drop-out households. Crop pest and disease is the third most common shock. The comparison group seemed to be significantly more often affected than the other two groups. Estimated loss in cocoa produce is very high. Farmers in all groups think that they would have harvested twice as much without the shock. The only relevant strategy for farmers to cope with the shocks or to mitigate their impact is to work more. A high level of dependency on CAA is observed however, as it is the only actor that provides significant support to the farmers.

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