

Background

In line with its mandate of positively impacting agricultural production and smallholders in Africa, AATIF assesses its progress and impact on five key outcome areas including (i) agricultural production and productivity; (ii) employment; (iii) income; (iv) outreach to smallholder farmers and; (iv) living and working conditions. As part of its research efforts, AATIF commissioned an ex-post (end-line) Rapid Appraisal of Global Agri-Development Company (GADCO) - one of its direct investee company in Ghana. AATIF extended a loan to GADCO for a 5-year term in 2012, to be used for (a) capital expenditure for procurement of a rice mill and farm expansion and; (b) procurement of agricultural equipment. GADCO is an agri-food company, focused on production, processing and marketing of fragrant rice. GADCO model is built around a commercially run, fully mechanized nucleus farm, integrating smallholder farmers as it grows. However, in 2014, the company faced some operational challenges that led to liquidity pressures and subsequent suspension of its operations. In 2015, GADCO was bought by RMG Concept Limited, and underwent among other financial and managerial changes, debt restructurings. After takeover in 2015, GADCO further invested in new equipment. Currently, operations at GADCO nucleus farm are 80% mechanized. This study provides insight on the causal link between farmers participating in GADCO supported out-grower schemes and improvements in the main outcome areas. The survey - that cannot be used to rigorously assess impact - compares three groups: i) Copa Connect farmers; ii) Fievie Connect farmers; and iii) Control group farmers¹. The data collected in November-December 2018 serves as a basis for assessing impact of the investment at the end of the investment period.



Processed rice at GADCO Processing facility in Sogakope.
Photo taken by Research Support Services (RSS)

Key Findings

Findings indicate some positive impact in some areas and challenges in others, comparing key indicators before and five years after the investment. The endline report observed differences between the groups of farmers.

1. Agricultural production and productivity levels

During the first year after restructuring (2015), GADCO cultivated 492 ha in its nucleus farm, while in 2018, 835 ha were cultivated (70% increase). In 2015, with average productivity of 4.7 MT per hectare, 2,295 MT of paddy rice was produced in GADCO's nucleus farm, whereas in 2017, a total of 2,001 MT of gross paddy was harvested (2.5 MT per hectare). Changes in productivity between 2015 and 2017 could be as a result of the difficulties GADCO went through after 2015 as well as climate change in Ghana. Although cultivated Fievie Connect farmlands vary per season, and existing challenges resulting in no farming activities in some seasons, the average land size cultivated at any one season seem to be increasing (at 68.5 ha in 2016 and 77.5 ha in 2018). On the other hand, Copa Connect program has been expanding spatial coverage (with undulating land sizes) between 2015 and 2018. The average productivity for Copa farmers seem to be increasing over the years (at 2.1 MT/ha in 2015 and 5.3 MT/ha in 2018). Findings show that the highest proportion of Copa connect farmers (82%) cultivate Jasmine rice, while Fievie connect farmers (64%) cultivate AGRA rice. Close to equal proportions of Control Group farmers cultivate Jasmine rice (46%) and Togo Marshall rice (41%). The type of rice cultivated may also be a function of productivity. Results also suggest Control group farmers cultivate relatively larger parcels of land (for rice), and appear to have slightly

¹ GADCO runs two smallholder schemes, Copa Connect and Fievie Connect, with key feature of providing input package (good quality inputs and seeds, technical advice as well as ready market for paddy). Fievie Connect farmers benefit more from GADCO, they only carry out agronomic activities while GADCO provides land preparation, ploughing, harrowing, planting and harvesting. Copa Connect farmers carry out all the activities in their farms. Control group are non-GADCO rice smallholders not linked to any lease programme, with characteristics similar to GADCO smallholders.

higher productivity levels. Despite heavy mechanization at GADCO nucleus farm, coupled with improved agricultural practices, rice productivity seem to be comparatively low (2.5 MT/ha vs about 5 MT/ha for smallholders). It thus appears that there still exist some inefficiencies at GADCO that have not been fully addressed.

2. Employment

GADCO provides direct and indirect employment opportunities to local communities through its out-grower schemes and processing operations. With varied employment opportunities existing during major and minor seasons, the study derived average figures for employment opportunities existing at any one season. The average workforce at GADCO nucleus farm in any one season was 109 (77 permanent, 32 casuals) in 2015, and 109 (95 permanent, 14 casuals) in 2018. Trends depict that average employment figures remained stable, but peaked in 2017. Again, as permanent employment increases, seasonal employment decreases, attributable to increased mechanization and creation of additional qualified employment opportunities at the nucleus farm. Female employment opportunities remain low, at an average of 4%. The average wage per GADCO employee per season increased from GHS 4,251 in 2015 (after takeover by RMG) to GHS 4,962 in 2017. On the other hand, the average number of Copa Connect smallholders at any one season declined from 2015 (527) to 2017 (362) but rose in 2018 (478). Furthermore, the average number of Fievie Connect smallholders at any one season seemed to be relatively stable over time (67 in 2016 and 62 in 2018). Copa Connect has maintained engagement of female farmers at about 30% since takeover by RMG (baseline 19%), while Fievie Connect at over 31%.

3. Farm and overall household income

A large proportion of household income comes from rice farming (77% Copa Connect and 73% Fievie Connect). Control group farmers appear to engage in numerous non-agricultural income sources and in relatively high proportions compared to beneficiaries. This may translate to increased overall household incomes for the Controls. The average annual household income is much higher for Control farmers (GHS 22,623) compared to Copa Connect farmers (GHS 12,120) and Fievie Connect farmers (GHS 10,090). The annual national minimum wage is GHS 3,136. The computed total annual household income and income received from GADCO (sum of incomes from major and minor seasons), appear to be higher for Copa connect farmers compared to Fievie connect farmers, despite similarities in their average land sizes and productivity. Copa connect farmers seem to receive extra income from other non-agricultural sources. The average cost of inputs received from GADCO appear to be higher for Fievie connect farmers (GHS 7,974) compared to Copa connect farmers (GHS 1,887). Findings also reveal that GADCO can take up to 90 days to pay farmers for the rice supplied, an indicator of constraints within the company.

4. Company outreach to smallholder farmers

The support received by Copa Connect smallholder farmers initially were seeds, ploughing and harvesting services. Currently, both Fievie Connect and Copa Connect farmers receive fertilizers, herbicides, insecticides, fungicides and seeds. The reimbursement of the credit is done in kind after harvesting i.e. part of the harvest is used to pay back the credit received. Each input package is tailor-made to the needs of every farmer. After distribution of inputs, extension support and follow-up are conducted to ensure farmers modify and improve their practices. Over the years all registered Copa Connect and Fievie Connect farmers have received financial support, technical/extension advice and market support/intelligence. Access to irrigation among Copa Connect farmers has increased (295 in 2015 and 626 in 2017). On the other hand, all registered Fievie Connect farmers have had access to irrigation in addition to mechanized services.

5. Improvement in living and working conditions

Only 4% of Control farmers, 12% of Copa Connect farmers and 16% of Fievie Connect farmers live below USD 3.10 (poor). Very few households overall (2.1%) live on less than USD 1.90 per person per day (very poor), with Fievie connect farmers more affected (3.6%). Generally, Fievie connect farmers appear to have relatively higher poverty rates than the other groups. The mean Household Dietary Diversity Score (HDDS) was 8.4 and 8.0 for Copa and Fievie connect households respectively (HDDS max=12). Control group households had HDDS score of 8.4. In addition, dietary patterns show that majority of Control group (73.0%), Copa (77.3%) and Fievie Connect (64%) households fall within the High Dietary Diversity tertile. However, more than a quarter (29%) of Fievie Connect households appear to belong to the Medium Dietary Diversity tertile.



Disclaimer

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