



agrocenta

Impact Report 2017

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Note from the founders

Foreword by Francis Obirikorang, and Michael K. Ocansey, Co-Founders of AgroCenta

In 2017, AgroCenta had 2 major organizational milestones that signified a ground-breaking achievement. From January-May 2017, AgroCenta began the proof of concept phase that included the development of the tech platforms to facilitate trade when the commercialization phase began, signing up and training 20 AgroCenta field agents. These agents were recruited, trained and wrote certification examination that prepared them for their field work with the smallholder farmers. The trained agents were responsible for registration and on boarding of smallholder farmers in the Northern and Upper East Regions of Ghana. In the proof of concept phase, the AgroCenta agents mobilized resources and on-boarded over 6,000 smallholder farmers in 12 communities.

The commercialization phase began in April-December 2017 where trade arrangement was facilitated for more than 5,000 smallholder farmers, connecting them to 4 major off-takers in the breweries and animal feed production sectors in Ghana; generating an income of \$200,000 for these smallholder farmers.

Finally, AgroCenta kicked off its PlantRite Project which is an outgrower/contract farming model for smallholder farmers where about 400 farmers were financed with certified seeds, mechanized land preparation services and fertilizers. The pre-financed farmers were trained to cultivate sorghum, which is one of the highest trading commodities on the AgroCenta platform to feed into our supply chain.

Being our first impact report, we are happy to see the accelerated growth and potential of AgroCenta and its impact in the lives of smallholder farmers across the country where we are improving their financial livelihoods through fair trade.

Special thanks to the thousands of smallholder farmers who believe in the vision of AgroCenta to structure an unstructured market by providing the last mile access. Special thanks also to the chief and queen mother of the Kongo Traditional area in the Upper East Region for their immense support. Finally, special thanks to the ground staff of AgroCenta for making all this possible.

2017 cannot be without setbacks, lesson learned such as rapid response to pest and bird invasion, timely community and farm visits, early planting time for commodities to avoid drought etc. will be included in our 2018 agenda to maximize impact and minimize losses.

Executive summary

AgroCenta is a web and mobile platform that connects all the stakeholders in the agro industry from producers, suppliers, transporters, sellers and consumers under one umbrella for effective trading. AgroCenta focuses primarily on small holder farmers and farmer based organizations and connect them to a larger market to trade equitably, reinvest a percentage of the sales of their farm produce into purchase of agro inputs such as fertilizers, seedlings, pesticides, weedicides and hiring of tractor services.

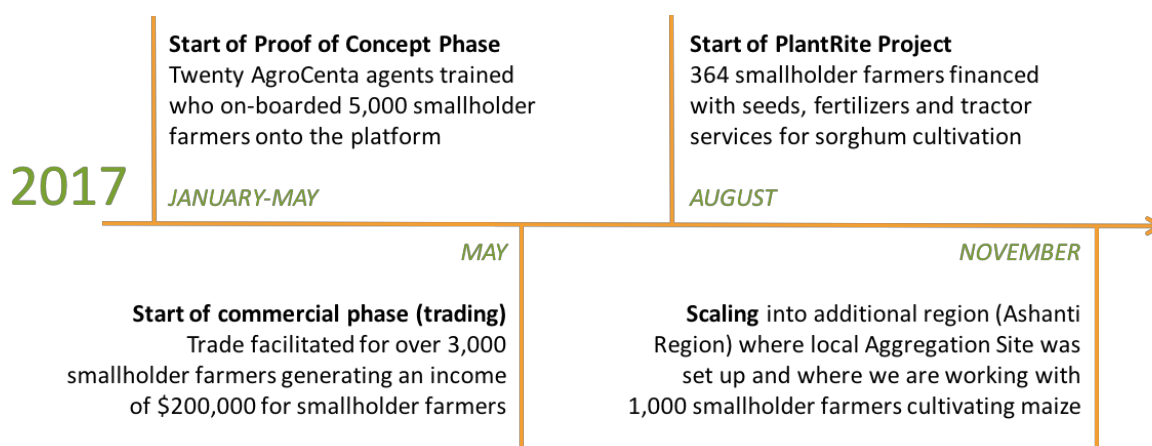
This impact report covers our achievements in 2017 and shows our impact plans for the future.

We aim at changing the very lives of smallholder farmers by using technology to solve problems they encounter in agriculture.

“With the timeline and consistent delivery of commodities by AgroCenta, we have managed to boost production by 40% and also reduce importation costs by sourcing locally” – Stephen Ghansah, head of Agribusiness, Guinness Ghana Limited (subsidiary of Diageo Group)

“AgroCenta now assures me of a ready market for my commodities so I no longer have to worry about where I will sell. All I need to do is to produce, knowing AgroCenta will take care of the market for me. I couldn’t be any happier” – Madam Salima, PlantRite project beneficiary

Our story so far



From farmer to market

Inefficient market for agricultural products in rural areas, limited knowledge of modern farming practices and lack of access to finance for agricultural assets are among the biggest challenges that farmers in Ghana are struggling with. These difficulties result in low yields and low income for farmers and little possibilities for growth.

At AgroCenta, we believe that agriculture should be sustainable, fairly remunerated and an opportunity for present and future generations for growth and well-being.

By using technology to accelerate the growth of agriculture, AgroCenta with its suite of services reached out to the following population of smallholder farmers through the following services:

- AgroTrade – Trade was facilitated for more than 3,000 smallholder farmers by connecting them directly to a larger and structured market to trade fairly, selling close to 500 MT (metric Tones) of commodities
- AgroInfo – More than 6,000 farmers benefited from e-extension advisory services, weather information and market prices via SMS and IVR in their local languages
- PlantRite – About 364 farmers were financed in the 2017 farming season to cultivate sorghum
- AgroPay – About 3,000 smallholder farmers received digital payments via mobile wallets for trading on AgroCenta platform



Sustainable Development Goals

At AgroCenta we aim at addressing some of the world's most pressing issues. In particular, our work contributes to the following UN's Sustainable Development Goals:



End poverty in all its forms everywhere (SDG 1) through access to market to smallholder farmers

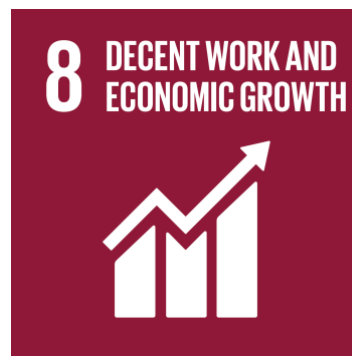
By matching smallholder farmers with buyers on our platform, AgroTrade, we aim to eliminate the inefficiencies in the value chain and give a fair remuneration to our farmers. In addition, we aim to provide farmers with higher and less volatile incomes so to enable them to provide for their families and improve their livelihoods.



End hunger, achieve food security and improved nutrition and promote sustainable agriculture (SDG 2) through access to modern farming techniques

Best farming practices and modern techniques are essential to increase the productivity of the crops. Our trainings are delivered by skilled professionals and the methodologies are continuously updated to reflect the state-of-art practices. At least 50% of women take part in the trainings.

Moreover, a call center service accessible 24/7 in the local language will support farmers with further information related to their crops, fertilizer application etc.



Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all (SDG 8) through access to finance

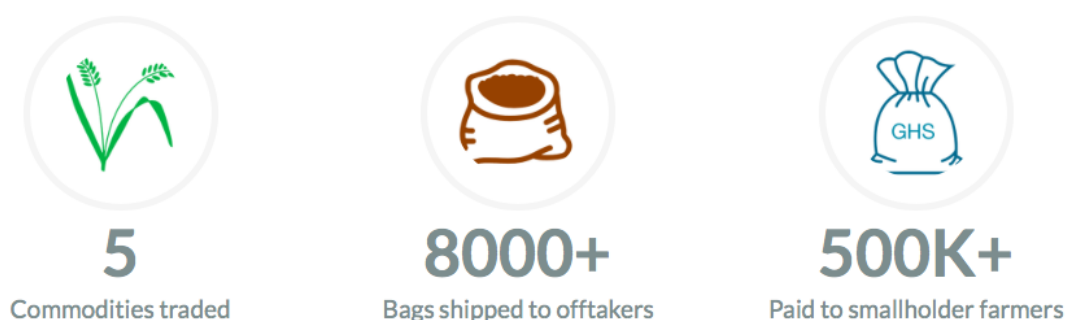
By purchasing agricultural inputs such as machines and fertilisers, farmers can upgrade their farms, get a higher and more stable income and contribute to the economic growth of the agricultural sector in Ghana.

In addition, AgroCenta aims to create a market for local specialised workforce that will assist farmers in increasing the value of their crops.

Impact Management

Impact is at the core of what we do. And we believe that by measuring our impact we will be able to make better business decisions.

So far our impact measurement was focused on economic indicators and it was driven by the demand for products of the off-takers. The image below shows our achievements for 2017.

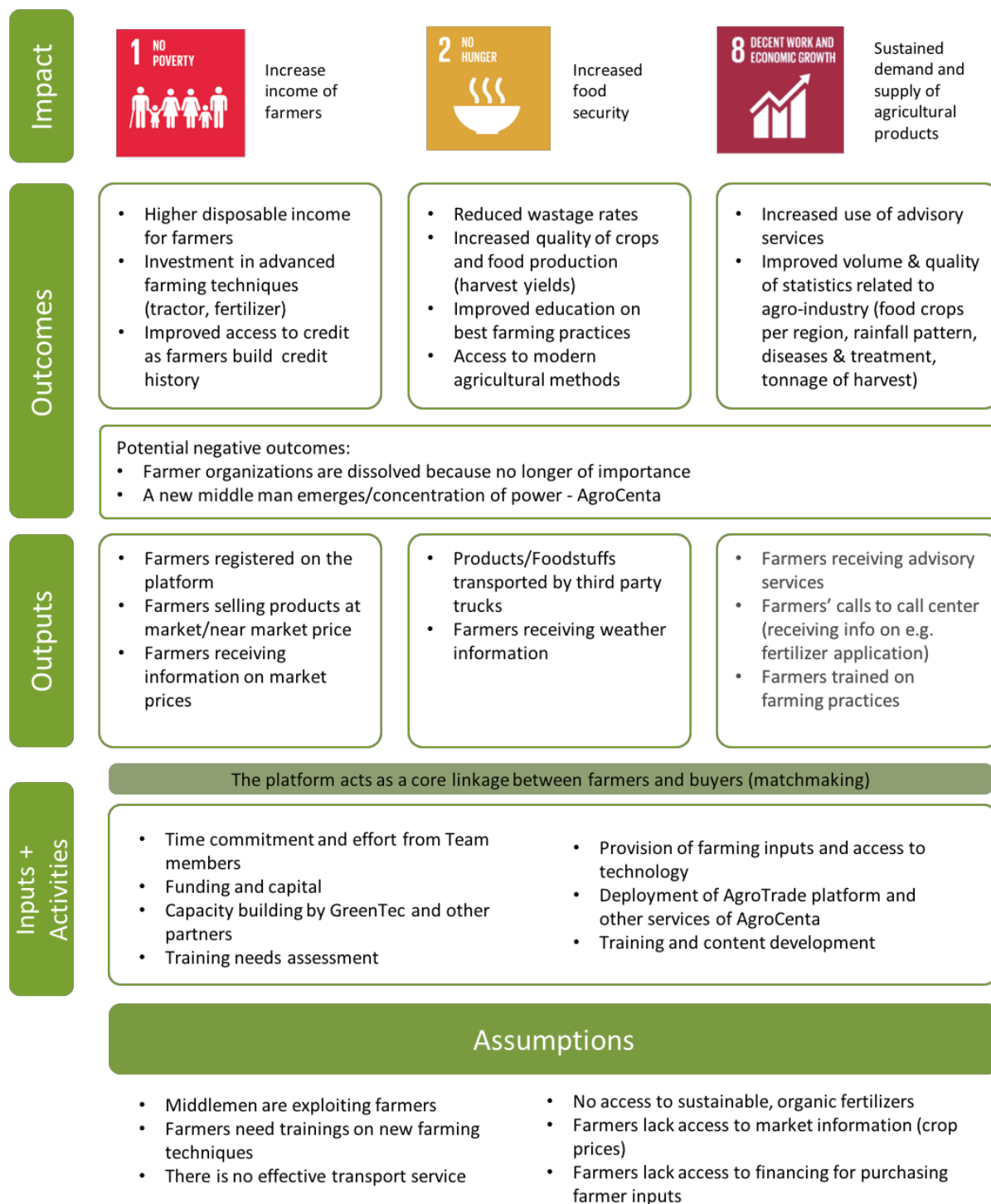


To elaborate on the above-mentioned metrics, we are actually closing 2017 with approximately 8,900 “bags shipped to off-takers”. These refer to the standardized 50kg bag deliveries, which large off-takers use when receiving inventory. This “Ghanaian” agricultural metric will be equivalent to approximately 450 MT of agri production.

Additionally, the 500,000+ GHs paid to smallholder farmers is using the local currency Ghana Cedi (GHs), and is equivalent to over \$110,000 USD at 2017 year-end exchange rates.

Theory of Change

AgroCenta's Theory of Change



Core metrics

In order to measure our progress towards the SDGs 1, 2 and 8 (see more in the section Sustainable Development Goals) we have identified the following three metrics:

Metric 1: Increased income of farmers	Metric #2: Reduced wastage of food – calculated as tons of food waste avoided	Metric #3: % yield increase																		
Baseline: \$1.5 Target: \$4 per day	Baseline: 125 MT ¹ Target: 10,000 MT	Baseline: 1 metric tonne (MT) Target: 2-2.5 metric tonnes																		
<table border="1"> <tr> <th>2018</th><th>2019</th><th>2020</th></tr> <tr> <td>\$2.5</td><td>\$3.0</td><td>\$4.0</td></tr> </table>	2018	2019	2020	\$2.5	\$3.0	\$4.0	<table border="1"> <tr> <th>2018</th><th>2019</th><th>2020</th></tr> <tr> <td>2,000</td><td>5,000</td><td>10,000</td></tr> </table>	2018	2019	2020	2,000	5,000	10,000	<table border="1"> <tr> <th>2018</th><th>2019</th><th>2020</th></tr> <tr> <td>2MT</td><td>2.5MT</td><td>2.5MT</td></tr> </table>	2018	2019	2020	2MT	2.5MT	2.5MT
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2MT	2.5MT	2.5MT																		
Assumptions: Farmers sell all their production to AgroCenta and they don't have to worry about unsold produce	Assumptions: AgroCenta has better control over the price at which to sell the crops and it can distribute the unsold products to local communities	Assumptions: Thanks to the specialised consulting the farmers are able to improve their yield																		

Each of the three metrics has an assigned weight that depends on the importance of the contribution of the metric to the overall goal of AgroCenta.

Increased income for farmers

weight 35%

Reduced wastage of food

weight 25%

% yield increase

weight 40%

By the end of the reporting year (starting in 2018) we will be able to combine the metrics into one score, expressed as a percentage that will give a clear indication on our performance. Here's how the results could look like and how to interpret them:

- score of **90%** → operations are **underperforming** (with respect to the targets set)
- score of **100%** → operations are **on track** (with respect to the targets set)
- score of **110%** → operations are **outperforming** (with respect to the targets set)

¹ We assume 25% of post-harvest losses. It is estimated that post harvest losses range in the 25-40%, with some studies indicating as high 50-60% losses. ("Reducing Postharvest Losses during Storage of Grain Crops to Strengthen Food Security in Developing Countries", Deepak Kumar and Prasanta Kalita, Foods, Published: 15 January 2017; <http://www.mdpi.com/2304-8158/6/1/8/htm#B8-foods-06-00008>)

Our methodology

Our agents are the lifeline of AgroCenta's activities. AgroCenta agents interface directly with smallholder farmers in various communities, districts and regions in the Northern Upper East and Upper West of Ghana. AgroCenta agents are responsible for the primary data collection and for capturing feedbacks on the needs of the farmers.

The data that we are able to collect today include:



Farmers' bio data
(age, gender etc.)



Income (before
and after joining
AgroCenta)



Agricultural information
(land size, type of
commodity etc.)



Market price

Once the data are collected during the registration, the agents create farmers' personal profiles on the platform and save the information. These data serve as the baseline for our impact metrics. Then, once the goods are sold, the platform captures the selling price which allows to measure the increase in revenues of the farmers. Moreover, based on the amount of goods offered on the platform by the farmers, we can measure the increase in food production.

How local knowledge can bring more effective results than traditional chemical solutions

In the 2017 crop season, farmers participating in the PlantRite project faced attacks from the Fall Army worm. This invasion was so endemic that the certified chemicals by the Ministry of Food and Agriculture seemed ineffective. Through the local knowledge of local stakeholders and opinion leaders, farmers were able to apply a local plant (known as *acheampong*) in the effective treatment of the fall army worm invasion.

Going forward, as we expand the scope of the PlantRite project, we hope to spread the knowledge from the current 350+ participating farmers across the many '000s of farmers we will work with.

Impact Roadmap

Our impact measurement is a work in progress and impact measurement is a journey.

Our aim is to be able to capture through time the material effects of our work. For this reason, we want to expand our measurement model in the future and communicate about the changes in our farmers' lives.

In the short term, we want to be able to effectively measure and report on the metrics we've identified and compare them with our targets. We want to learn from our successes and failures and continue improving the business model of AgroCenta.

In the medium term we will build our technology outreach capacity with focus on financial inclusion. The goal of AgroPay will be to not only allow for mobile wallet payments to farmers for the harvest, but will ultimately include a lending capability so that farmers can borrow small amount of money to purchase inputs before the harvest. We will then have additional impact metrics related to access to finance and improved output.

In the long term we aim at creating a complete database of market prices and help established a standard price for the agricultural products in Ghana. In this way, we can influence and indirectly reach every farmer and make sure that he can trade his goods at a fair price.

Special projects

Through the PlantRite project, we aim to demonstrate that by providing the necessary agricultural inputs and adequate monitoring by agronomists, one can help increase harvest yields.

The project has a very special focus on women. Out of the total 364 participants of the PlantRite project, more than 250 are women representing more than 50%. The women ownership of land for the PlantRite project rose to about 80% due to community participation and lease of land to women to own and cultivate. These data are captured by the AgroCenta site coordinators who are agronomists and work directly with the beneficiaries of the PlantRite project.

AgroCenta directly participated in the negotiations for land allocation. Out of 350 farmers who received 1 acre of land each, 200 are women.

Through this pilot, we focus on the harvest yield of the agricultural production. A 2011 report on Agriculture in Ghana² estimates national average yields for sorghum at 1.3 MT per Hectare, or approximately 5.5 Bags per Acre. For the PlantRite program we will target 10 Bags per acre.

Also, we will be monitoring if there are any significant differences in the yield increase between male and female farmers. From an observational standpoint, we could already notice that female farmers are visiting the farms more often than men, but the harvest period will be the moment of truth. The harvest period recorded low yield as a result of a factor both smallholder farmers and AgroCenta do not have control over: the weather. Farmers in the PlantRite zones dealt with drought and bad weather such as scarce rainfall in the last months of the planting season, which led to about a 30% yield success because the project was heavily dependent on rainfall.

Metric indicator: Harvest yield per farmer

Metric indicator: female vs. male farmer production

² Agriculture in Ghana : Facts and Figures (2010) , Ministry of Food and Agriculture , May 2011

Awards

We are honoured that our work has been recognised in several competitions this year

These awards not only do they come with financial benefits but also come with expert advisory services AgroCenta will need to scale and grow to become the largest commodities trading and exchange platform in Africa



1st Place
Young Entrepreneurs
Competition, WEDF,
October 2017



**Winner (Social Good
Category)**
TechCrunch Battlefield
Africa, October 2017



**Winner (Environment &
Green Energy Category)**
World Summit Awards,
November 2017



1st Place
Seedstars Accra,
September 2017



2nd Place
Pitch Agrihack West
Africa, September 2017



1st Place
FINCLUDERS Startup
Challenge Amman, May
2017

Our team



Thank you so much for reading our report. We look forward to hearing from you as we continue to work hard towards our collaborative vision of farmer prosperity in 2018 and beyond!

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This report was prepared by AgroCenta under the technical supervision of Roots of Impact.