

# Farm Enterprise Advisory Services Business Case

The case for FEA service delivery to commercialise agriculture in Northern Ghana





The Market Development Programme (MADE) for Northern Ghana is a six-year DFID-funded programme promoting growth and poverty reduction in the 60 districts covered by the Northern Savannah Ecological Zone (NSEZ).



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MADE is a six-year programme funded by the UK government that aims to increase the incomes and resilience of poor farmers and small-scale rural entrepreneurs in the Northern Savannah Economic Zone by improving the way market systems are applied. MADE works directly with agribusinesses, facilitating and supporting the adoption of commercially viable and sustainable business models designed to improve operational capacity, productivity and competitiveness.

One of the key pillars of this support has been the introduction of farm enterprise advisory (FEA) services working directly with smallholder farmers (SHFs). FEA services are the first- and last-mile market link for SHFs located in areas away from commercial centres. In 2018, FEA services were delivered to 83,460 SHFs covering 287,838 acres of land in the Northern, Upper East and Upper West regions of Northern Ghana. FEA services go further than government extension provision by providing a variety of support to farmers throughout the cropping season. This support ranges from land use planning and preparation at the beginning of the season, through to crop storage and marketing support at the end of the season. FEA service delivery has a target of 260 SHFs to each FEA.

FEA's are the change agents for agricultural transformation, operating with lead farmers to form a framework within which industry is able to control the quantity and consistency of supply. Future efforts to expand this framework to ensure reliable quality of supply will further maximise the potential for the industry in Northern Ghana and counter any negative perceptions that currently exist.

MADE is committed to ensuring the sustainability of the key components of its business models. It commissioned a study to assess the commercial viability of the FEA services element. This publication summarises the key findings, notably:

1. Key reasons for agribusinesses to invest in FEA services.
2. Critical success factors that agribusinesses need to consider.
3. Opportunities for further investment and scale.

The recommendations in the report reflect the strategies that agribusinesses themselves have put in place as they have adopted the market systems approach over time.



*An FEA from Sky 3 Farms standing next to a company owned tractor*

## Reasons to invest in FEA service delivery

The following points summarise the key reasons for investing in FEA services in Northern Ghana and elsewhere:

### 1 Consistent business growth.

Since the introduction of FEA services, the agribusinesses have made extremely positive progress, with all agribusinesses reporting year-on-year growth. Some businesses reported a steady 10% year-on-year growth, while others returned year-on-year growth of up to 100%. Various factors have influenced the differences in growth between businesses, including their ability to leverage commercial partnerships, level of ambition, appetite for risk, number of years established, and access to finance. The businesses are not in a position to quantify exactly how much of their growth is specifically attributable to the introduction of FEA services, but many estimate it to be between 25% and 75%. The other leading factor in driving growth has been the development of commercial partnerships that leverage resources and specialist services, both of which are designed to complement FEA service delivery.

**“We turn away many more SHFs than we accept each year now, but we don’t keep track of those that we turn down.”**

—The owner of Antika

### 2 Improved recovery rates.

Agribusinesses have experienced a dramatic increase in the percentage of crops that are ‘recovered’ as in-kind payment against the sums they are owed by SHFs. In some cases, recovery has increased from as low as 50% up to 99%. Increased recovery rates are associated with:

- Improved risk management, based on farmer group-lending models which provide initial screening for new SHFs.
- Improved due diligence techniques, often supported by technology for land measurement.
- Greater control and monitoring of how and when products and services are applied.
- Better relationships with the community, gained through the regular presence of FEAs in the field.
- Increased farmer productivity, so there is more crop available for the agribusinesses to recover.

### 3 High demand for FEA services.

In 2010, it was estimated that only 10% of arable land in Northern Ghana was being cultivated, which demonstrates that the potential market for growth is large. There are an estimated 300,000 farming families in Northern Ghana cultivating between 1-5 acres, with 100,000 in Upper West alone. The 62 partner firms currently working with MADE are currently reaching 83,460 SHFs. All agribusinesses interviewed during the study stated that they turn down more farmers for their FEA service delivery programmes each year than they accept. There may be a number of reasons for this, such as limited financial and human resource capacity to service new farmers, or some farmers being ‘not serious’ and not passing due diligence. Whatever the reason, the size of the market for FEA services is large,



and there is significant opportunity both for existing providers to scale up services to existing SHFs, and for new providers to roll out services to SHFs in new geographies, both within Ghana and internationally.

## 4 A flexible approach means agribusinesses can start small and scale rapidly

Agribusinesses have adopted FEA service delivery in many different forms, each adapting it to suit their unique operating environment, capacity and resources. Agribusinesses new to FEA services can start small, with a limited range and reach of services, and later add on additional services as their confidence and capacity grows, or as they develop commercial partnerships to complement their own skills and capacity.

## 5 Increased SHF productivity leads to greater security of supply.

Yield rates are reported to have increased across all agribusinesses that provide FEA services. Increased productivity generates more revenue opportunities for agribusinesses. Many farmers now have surplus crop above their agreed recovery volume, which they also sell

back to the agribusiness. Some businesses buy this surplus at slightly higher than market rates, with a view to storing the crop and, more importantly, in order to improve their relationship with the community and thus protect their security of supply. Yield increases for maize are reported to have increased on average from 500kg per acre per season to anywhere between 800kg and 1,000kg. Net margins for SHFs in this scenario would go up from 40% to 50%. Similarly, sorghum yields have increased on average from 485kg per acre per season to 810kg.

## 6 Increased confidence leads to greater and more effective land use.

All agribusinesses delivering FEA services operate progressive lending programmes, to reduce risk when signing up new SHFs. They often start with two acres of service provision, which they then scale up if recovery is successful in the first season. As the confidence of the agribusiness grows, so does that of the farmers. As a result, some successful SHFs have scaled up their operations from an initial two acres of FEA support to over 40 acres. The confidence to produce greater supply on a reliable and consistent basis is an important step towards the commercialisation of agriculture in Northern Ghana.



*FEAs from Antika carrying out quality control and sorting through grain to remove extraneous matter*

## Critical Success Factors for FEA service delivery

The following points summarise Critical Success Factors (CSFs) for agribusinesses wishing to deliver FEA services. They are based on strategies already being successfully implemented and on lessons learned. In future, if agribusinesses follow these CSFs, they are likely to be able to maximise the returns on their investments, as well as the value and effectiveness of their services to SHFs.

### 1 Create diversified revenue streams and mirror costs where possible.

Most agribusinesses have adopted creative and balanced revenue strategies that help provide steady cashflow throughout the year. Diversified revenue strategies include:

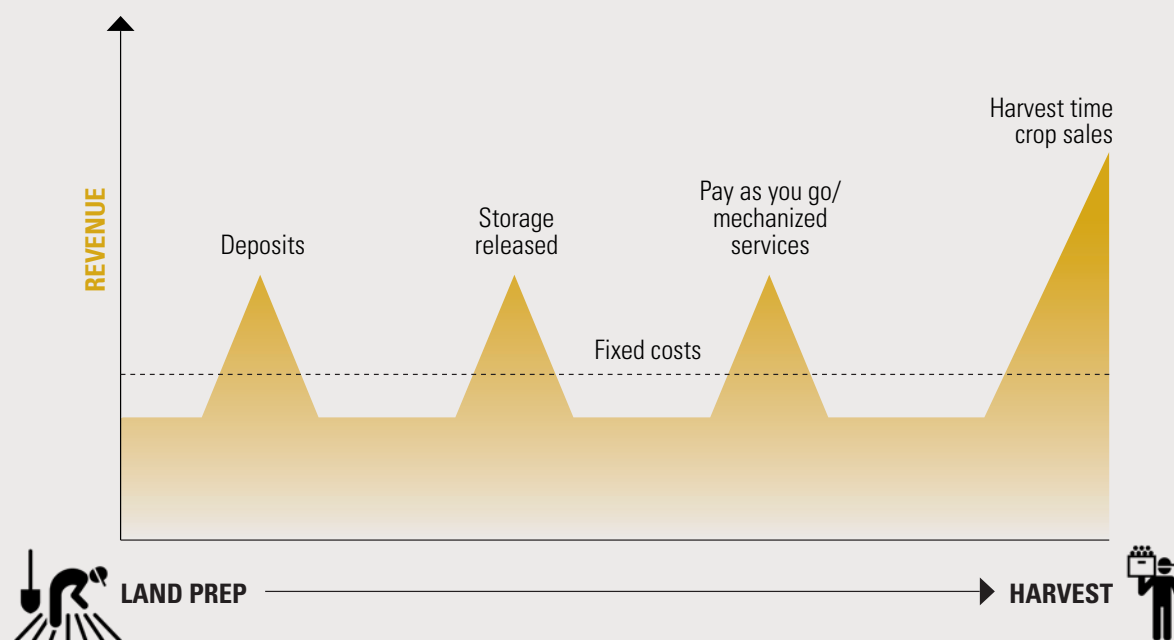
- a. Storing crops and selling at strategic points throughout the year, after the harvest period when prices are low. For example, maize prices can vary from GHS 1/kg at harvest time up to GHS 3/kg later on in the year.
- b. Demanding deposits or down payments at the beginning of the season for certain input

products. One business has charged up to 30% of product cost at the beginning of the season.

- c. Charging for certain services on a 'pay as you go' basis. This is particularly common for mechanised services where agribusinesses lease machines from third parties. Tractor services are often charged at one bag per acre, or the equivalent of approx. GHS 100/acre serviced.
- d. Off-season cultivation of vegetables, or using irrigation for additional production seasons such as rice.
- e. Acting as a trader at various points throughout the year, buying crops from agents and selling on to buyers. Some businesses have based up to 50% of their revenue generation on this strategy.

Mirroring costs with revenue is a good way for an agribusiness to improve cashflow. This is particularly possible for certain variable costs (such as payments to suppliers), although fixed

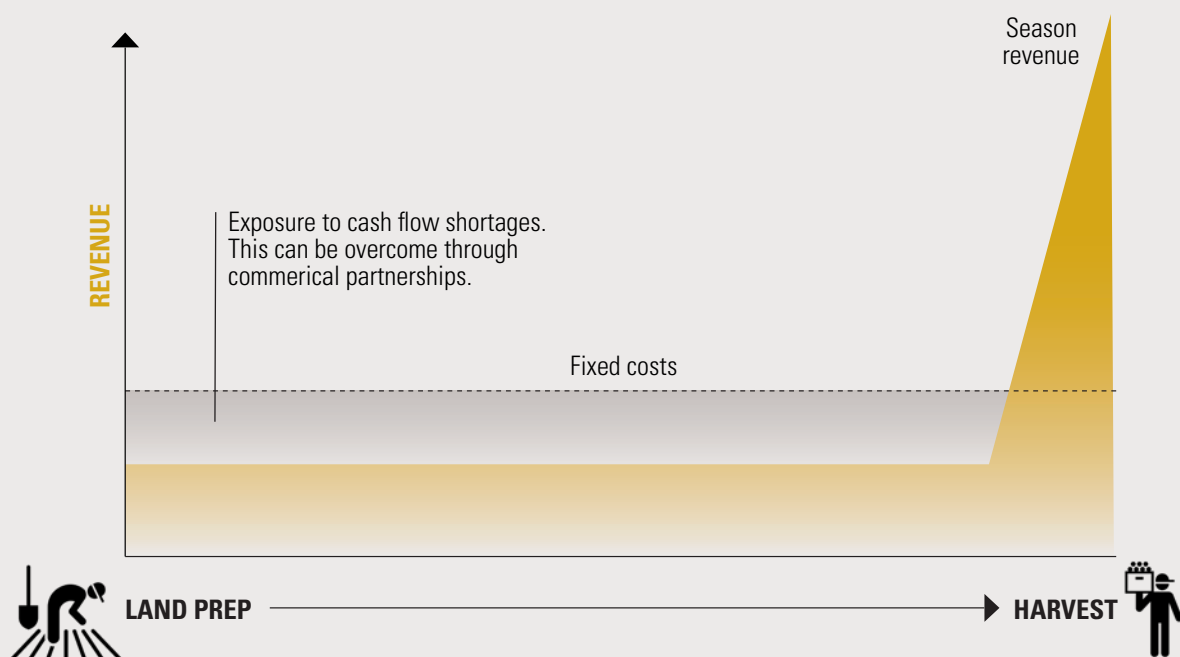
### DIVERSIFIED REVENUE MODEL







## SEASONAL REVENUE MODEL







**“New SHFs must accept the full package of products and services because then we can control what goes in the ground and what comes out.”**

—The owner of Agri-Trade

costs (such as facilities and staff) are often harder to mirror. Agribusinesses should look to share risks and rewards with suppliers that offer longer payment terms. In some cases, agribusinesses have secured seasonal payment terms from their suppliers (see diagram).

## **2 Follow a structured risk management approach.**

As a starting point, agribusinesses should look to work with farmers who are organised into groups, and operating through lead farmers. This creates a group-lending platform that allows the agribusiness to offset some risk onto the group as a collective, as well as to facilitate initial screening and due diligence activities. The farmer group model also allows the agribusiness to benefit from social networks and local knowledge within each community. Once a farmer group structure and relationship is in place, agribusinesses that can control as many variables as possible are more likely to be successful. This can be achieved by providing diverse but formulaic packages of services that farmers ‘must follow to the letter’. Exercising an increased level of control over what, when and how production takes place



results in a greater likelihood of increased growth for both the agribusiness and the SHF. There will still be a number of variables beyond the control of the agribusiness, such as climate, market prices, sabotage and theft; however, a structured approach to risk will allow the agribusiness to significantly improve its chances of success (see diagram).

### 3 Provide a diverse range of services for farmers.

The more diverse the FEA services, the more convenient it is for the farmer. For example, some agribusinesses help SHFs all the way from land preparation through to harvesting. (See diagram). In addition, the more services the agribusiness offers, the more control they have over the variables, and ultimately over production. Agribusinesses can benefit from integrated margins across these services, allowing more profitable services to subsidise less profitable ones. As a starting point, agribusinesses should develop commercial partnerships with other businesses that provide complementary skills and capacity, which will reduce the up-front investments required to deliver a diverse range of services. However, over time, investing in vertical integration of FEA services will drive even greater profitability.

### 4 Invest in improved data management systems.

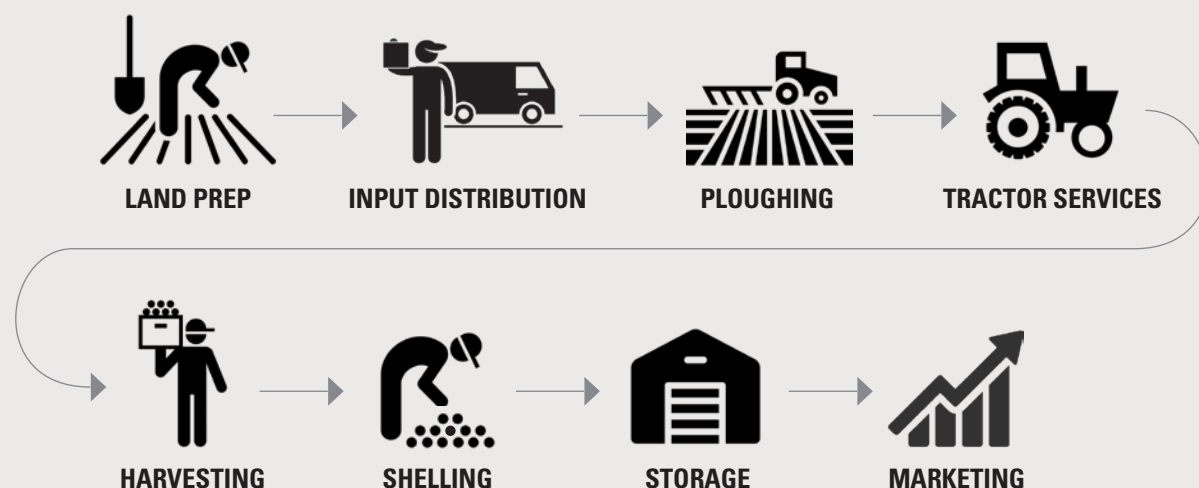
Agribusinesses must improve the way they collect and manage data. This is imperative for decision-making on a strategic level, as well as day-to-day logistics planning, forecasting and recovery management. Improved data management will support cost efficiencies and greater profitability, and will allow more detailed data on SHFs and their behaviour to be collected. As agribusinesses grow and require larger sums of working capital, the need for larger credit facilities with banks and financial institutions will also increase. The process of accessing finance becomes much more straightforward and likely

**“If we want to look serious with the banks we need to have good data. And we need the banks in order to grow.”**

—The owner of Agri-Trade

## THE FEA SERVICE RANGE

FEAs provide technical advisory at varying points to ensure the farmer gets the right quantity and quality of inputs at the right time, at the right price, applied at the right time and in the right way.



if the business has a functional and effective data management system. Businesses should invest in, and make use of, the technology and software available, such as the M-Access software, which is currently in development with support from MADE.

## 5 Leverage innovative finance products and services where possible.

There is a clear need for working capital to establish and deliver FEA services. Many agribusinesses currently have traditional loan or credit facility products from a range of commercial banks, although interest rates can be high, ranging from 10% to 40%. In addition, some agribusinesses have secured invoice discounting, in order to bridge payment terms from their buyers, while others have gone further and deepened their relationships with buyers by sharing the cost of interest. Warehouse receipt finance opportunities are also expanding in Northern Ghana, and it is expected that with the introduction of the GCX, further opportunities will be available in the future (see diagram).

## 6 Formalise and energize FEA incentives.

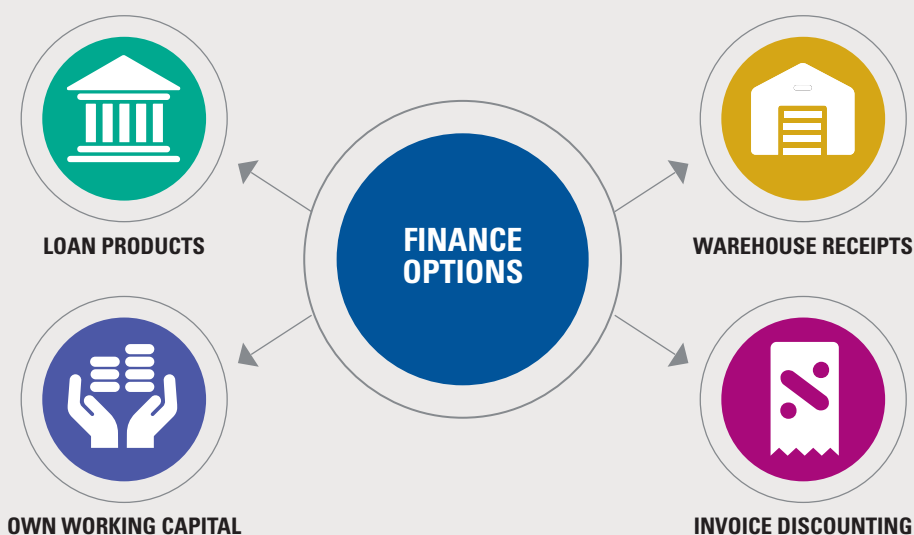
A recent study conducted by the Technical Education Development for Modernizing Agriculture in Ghana programme revealed that 52% of agricultural college leavers want to join MOFA when they graduate, while

40% want to join the Cocoa Board. The public sector is perceived to have significant job security, as well as additional benefits such as SNIT payments, pensions and access to personal finance. While public sector salaries start at GHS 1,200/month and private sector FEAs have monthly allowances ranging from GHS 500 to 1,000/month, private sector FEA salaries are supplemented by potentially significant performance payments. Typically, commission is based on a fee per bag recovered, or on a percentage of end sale price, in addition to other in-kind payments, such as inputs, products and services. As performance-based incentives are a central component of the FEA package, they need to be structured and demonstrated in a clear and transparent manner, in order to attract and retain potential FEAs. Further-more, agribusinesses should work to energise FEAs by inviting them to participate in wider business-related activities, not just production-based field work. This would demonstrate the 'business in agribusiness'.

## 7 Provide ongoing capacity-building to FEA staff.

As farmer demands evolve over time, the types of products and services delivered and how they are applied will change. Recruiting FEAs with relevant capacity is the first step, but this capacity has to be maintained and updated over time, in order to maximise the

### FINANCE OPTIONS







effectiveness of service delivery and therefore the commercial return for the agribusiness. A series of FEA-specific training courses are available to agribusinesses, one of which has been developed by MADE in collaboration with Damongo College. TEDMAG is also working with MOFA to introduce joint public-private training courses. Agribusinesses must invest in their FEAs and look to enrol them on such training courses, or to identify other, perhaps more 'on the job', opportunities such as mentorship and apprenticeship programmes.

## **8 Adopt socially and environmentally responsible business practices.**

While from a regulatory perspective FEA service delivery is not currently subject to stringent checks and balances, this may change in the future. In addition, as awareness of good practice grows, agribusinesses should consider their reputation. It is therefore recommended that they incorporate an ethos of the 'triple

bottom line' into their operations, going beyond profit to be mindful of people and the planet as well. From an environmental perspective, this includes climate-smart agricultural practices, while from a social perspective, due consideration should be given to terms of engagement with farmers, labourers and FEA staff. As agribusinesses start to adopt these practices, they must also ensure their policies are passed on to their supply chain partners.

**"The FEA job is cool and at the end of the day, everything always comes back to farming"**

*—FEA manager during a meeting with Agri-Trade*

## Opportunities for wider investment and scale

The following points summarise key opportunities for investment that will help scale up the impact of FEA services and further commercialise the industry as a whole. These opportunities are targeted at investors, agribusinesses and donor funded projects.

### 1 Investment in professional mechanisation-leasing services.

The use of agricultural machinery in Northern Ghana is surprisingly high compared to the rest of Ghana. Over 90% of SHFs in the north use tractors for cultivation, as against 31% across Ghana as a whole. This could partly be explained by the type of crops cultivated in Northern Ghana, which are mostly cereals rather than tree crops. Access to mechanised services at the right time therefore has a significant influence on productivity and profitability for SHFs. As an example, in Upper West there is only one tractor for every 1,100 SHFs, so there are significant logistical challenges in ensuring that SHFs get the right services at the right time. As a result, SHFs are not maximising their productivity and incomes, which in turn limits the growth of agribusinesses. Many agribusinesses now have their own fleets of tractors, but this is often not at the scale required, so third-party service providers are engaged. This is often on an ad-hoc basis, through social networks and community members who happen to have relevant machinery, rather than via a centralised

and professional leasing business. One of the possible reasons why there is limited investment into larger mechanisation-leasing businesses could be a lack of forecasting data available from SHFs and agribusinesses, which makes it very challenging for businesses to operate their services effectively. Investors and businesses looking to establish larger mechanisation-leasing operations should aim to work with FEAs to leverage their data and so make it easier to plan.

### 2 Franchising FEA services for greater scale.

One potential route to scale for agribusinesses would be to develop platforms for FEAs to establish their own businesses operating under the same brand as the lead agribusiness. This could be developed with a level of risk- and reward-sharing between the lead FEAs and the agribusiness, as well as the potential for credit lines between the two parties. A franchising structure could be offered as another incentive to attract and retain entrepreneurially-minded FEAs to the private sector. The franchising structure would need to provide clear lines of differentiation: for example, geography or crop type may be a useful starting point. The franchisee would have varying levels of autonomy in terms of delivery and recruitment of FEA staff. Donor programmes could help kickstart this by providing best-practice technical assistance and pilot-level support to structure and establish a franchising model.

**“All FEAs love working for the business and they feel like it is their own business to grow”**

— The owner of Zug Faan

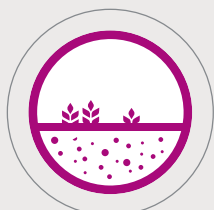
### 3 Build private sector capacity

There are ongoing efforts to reshape the focus of agricultural curriculums at colleges, moving away from traditional production-led courses to include wider aspects of agribusiness and agricultural value chains. As well as agricultural colleges, there may be commercial opportunities to establish and provide ongoing FEA training and mentoring



## EXAMPLE OF COMMERCIAL PATHWAY FOR AGRIBUSINESS PROVIDING FEA SERVICES TO MAIZE FARMERS

It is estimated that 500 SHFs with at least 2 acres of support is a minimum benchmark for agribusinesses to establish FEA services. Under the MADE programme, the average number of SHFs serviced by partners is 2,617 with an average of 3.68 acres of support provided to them. Progressive lending as confidence grows shows significant increases in recovery and total revenue. The pathway above also demonstrates that recovery rates increase as the business develops more structure to risk.



**YEAR 1**  
**NOT VIABLE**



**YEAR 2**  
**MARGINAL**



**YEAR 3**  
**PROFITABLE**



**YEAR 4**  
**HIGH GROWTH**  
(scale or acquisition ready)

### COMMERCIAL PERFORMANCE

**500 kg**  
per acre productivity  
**60%**  
recovery rate  
**1**  
FEA staff member  
**150**  
SHFs serviced  
**150 acres**  
total land covered  
**75,000**  
total revenue GHS

**600 kg**  
per acre productivity  
**65%**  
recovery rate  
**2**  
FEA staff members  
**500**  
SHFs serviced  
**1,000 acres**  
total land covered  
**600,000**  
total revenue GHS

**800 kg**  
per acre productivity  
**90%**  
recovery rate  
**4**  
FEA staff members  
**1,000**  
SHFs serviced  
**3,000 acres**  
total land covered  
**3,480,000**  
total revenue GHS

**1,000 kg**  
per acre productivity  
**95%**  
recovery rate  
**8**  
FEA staff members  
**2,000**  
SHFs serviced  
**9,000 acres**  
total land covered  
**14,400,000**  
total revenue GHS

### OPERATIONS AND ASSUMPTIONS

- Launched input delivery service and basic FEA technical advice
- Only seasonal revenue at 1 GHS / kg
- No farmer group relationship
- Serviced 150 SHFs with an average of 1 acre support

- Developed commercial partnerships to diversify services
- Formed farmer group relationships
- Only seasonal revenue at 1 GHS / kg
- Structured due diligence
- Serviced 500 SHFs with an increased min land size for support from 1 acre to 2 acres

- Further diversified services
- Accessed storage and sold 30% of recovery at 2.5 GHS / kg
- Sold 70% of recovery at harvest time for 1 GHS / kg
- Implemented more formulaic 'package' of services
- Improved data management
- Progressed lending to 1st wave of 500 SHFs to 4 acres of support
- Took on 2nd wave of 500 SHFs with 2 acres of support

- Invested in vertical integration of services
- Accessed storage and sold 40% of recovery at 2.5 GHS / kg
- Sold 60% of recovery at harvest time for 1 GHS / kg
- Diversified into wider off-season revenue such as irrigation
- Used improved data and commercial track record to secure more finance with better terms
- Progressed lending of 1st wave SHF to 10 acres of support
- Progressed 2nd wave SHFs to 4 acres of support
- Took on 3rd wave of 1,000 SHFs with 2 acres of support

services direct to agribusinesses. In addition to academically registered courses, this could perhaps be focused more on practical advice and mentoring.

## **4 Create more quality-based incentives throughout the market system.**

Only a fraction of the potential for commercialisation of agriculture in Northern Ghana is currently being realised. This is because incentives from buyers are largely linked to quantity rather than quality, with a pass-or-fail approach to quality. This affects how both FEAs and farmers are incentivised, and in turn, creates a 'flat market', in which quality premiums are not available for farmers. However, GCX has recently introduced a tier-grading structure. Quality-based incentives need to be demand-led and pulled through the market by buyers, rather than pushed by agribusinesses.

## **5 Invest in improved data management and technology.**

MADE is currently supporting the development of M-Access, a software package that will help agribusinesses manage data more efficiently and make strategic decisions based on evidence. Agribusinesses will need to invest in technology themselves to use M-Access and pay license fees in the future. MADE's reporting requirements with its partners have also meant that agribusinesses are having to measure data more effectively. Further work is required in this area, however, to maximise the potential growth of the agribusinesses. This could be achieved through capacity-building exercises for FEAs and other staff members, and demonstration and promotion activities to stimulate further uptake of technology.

## **6 Work with government to define complementary roles and responsibilities between FEA services and government extension.**

Both the public and private sector are aware of the strengths and weaknesses of their offerings to SHFs. There have already been efforts from the Directorate for Extension to harness the potential of private extension services, but this needs to be deepened. For example, the government could offer a series of incentive structures and policies such as tax relief for agribusinesses that deliver FEA services, or fertiliser subsidies being conditional on the delivery of FEA services to SHFs, to ensure products are used appropriately. A detailed division of roles and responsibilities between the public and private sectors needs to be developed, and should be updated on a regular basis as the context and sector evolve. As a starting point, MADE is planning a multi-stakeholder workshop on FEA services and key lessons. Both public and private sectors should look to continue this dialogue independently beyond the end of the MADE programme.

## **7 Address female FEA recruitment challenges.**

This is a wider structural change that would be transformational to the industry. Some agribusinesses have recruited female FEAs, while others would like to but have not been successful, predominantly due to lack of availability. All the agribusinesses partnering with MADE mentioned that female FEAs were likely to improve recovery rates within communities, as they are more trusted than male FEAs. MADE has played an active role by setting up apprenticeships and internships for female agricultural students, but the private sector needs to continue these activities in order to realise the maximum potential of FEA services.



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