

COMMERCIAL PARTNERSHIPS ASSESSMENT
REPORT FEBRUARY 2020

DFID Market Development (MADE) for Northern Ghana Programme

NATHAN



SUBMITTED TO

Department for International Development, Ghana

SUBMITTED BY

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LIST OF ACRONYMS

B2B	Business-to-business
B2F	Business-to-farmer
BDA	Business Development Advisor
CBD	Consolidated Bank of Ghana
DFID	Department for International Development
FEA	Farm Enterprise Advisor
GHS	Ghanaian Cedi
KII	Key Informant Interview
LPF	Lead Partner Firm
MFI	Microfinance Institution
MOFA	Ministry of Food and Agriculture
NGO	Non-Governmental Organisation
NSEZ	Northern Savannah Ecological Zone
PFJ	Planting for Food and Jobs
SARI	Savannah Agricultural Research Institute
SE	Support Enterprise
SHF	Smallholder Farmer/s
USAID	United States Agency for International Development
Y	Year (programme year, starting in March)

GLOSSARY

Commercial partnerships	Partnerships formed between two or more agribusinesses to leverage complimentary skills, capacity, coverage and finance
Lead farmers	Farmers that are charged with organising and coordinating farmer groups through which agribusinesses engage. The lead farmers are often incentivised with discounted products and services.
Recovery	Payment in kind through crops produced utilising products and services supplied by the agribusiness.
Recovery rate	Percentage of produce agribusinesses recover from SHFs in payment at the end of the season for inputs and services provided.
Vertical integration	A combination of multiple products and services offered directly by one firm to its farmers, ranging from input provision through to marketing.

SECTION 1. EXECUTIVE SUMMARY

The DFID-funded Market Development (MADE) for Northern Ghana programme is aimed at improving the livelihoods of smallholder farmers (SHF). The programme was launched in March 2014 and following two extensions will run to November 2020.

One of the key interventions facilitated by MADE has been the promotion of stronger, more supportive relationships between agribusinesses and value chain actors that build capacity to deliver against business plan targets and that lead to commercial benefits seen by all parties.

In 2017, MADE adjusted its approach to partner selection by taking on business syndicates with 'lead' partner firms (LPF) and 'support' enterprises (SE). MADE currently supports 62 firms through this arrangement, 31 LPFs and 31 SEs. Overall, MADE has engaged with 114 agribusinesses over the life of the programme. This assessment evaluates the manner in which partnerships were enacted, and the benefits that were realised, through interviews with 25 of MADE's partners, both LPFs and SEs, as well as five other key stakeholders.

The feedback gathered from the key informant interviews (KIIs) was uniformly positive about the health of each business, the state of its arrangements with smallholder suppliers, the value of the Advanced Model and on expectations for business and farmer growth. High levels of satisfaction were expressed regarding the MADE facilitated business-to-business (B2B) and business-to-farmer (B2F) relationships; it can be concluded that all the businesses interviewed plan to sustain these commercial relationships after the MADE programme closes.

In terms of the specific ways in which B2B partnerships were managed, firms most commonly reported that if a trusting relationship was developed, then no formal contract was needed. No significant differences were reported between the types of relationships or use of contract documents and the satisfaction of businesses with the arrangements. One of the greatest benefits to aggregators of MADE's partnership support has been their ability to secure inputs on credit by developing new or improved relationships with input dealers. The principle benefit of the commercial partnerships promoted by MADE to input dealers is the increase in sales they experience as a result of reaching larger numbers of new SHFs via new, or improved, relationships with aggregators. The fact that a few businesses are copying this model indicates that the concept of partnering is a sustainable market system change.

No difficulties were reported by firms in being able to identify or work effectively with groups of farmers. This is a significant finding for B2F relationships and is believed to be primarily as a result of the progress that other development programmes have made in fostering better organised farmers in the region. As a result, MADE's partners were able to identify and scale-up SHF out-grower groups easily, with most using their FEAs to engage with lead farmers. The performance of these groups is measured by recovery rates, which reflect both productivity and the amount of side-selling. Firms commonly credited improvements in recovery, rising 20 percentage points to 90 percent and above, through the adoption of interventions received from MADE. Agribusinesses reported that having formal contracts in place was a key part to building trust with their farmers and the minority of firms that did not have contracts already in place were in the process of introducing them.

In evaluating the success and potential of MADE's work in facilitating partnerships and related work, a number of constraints, risks and opportunities were identified. On the supply side, there is scope to facilitate more growth in smallholder supply chains through partnerships with large input distributors, such as RMG and OCP. Other key areas are, increased use of mechanisation services, dry season production and value addition through processing. Digitisation of smallholder biodata and improved management of input supply and commodity buy-back using smart-phone apps are also helping to formalise improved relationships between farmers and agribusinesses alike.

There are similarly some areas on the demand side that could be leveraged to meet the growth in supply of Northern commodities. The Ghana Commodity Exchange (GCX) is a relatively new facility that offers a new market for several crops and the chance for aggregators and larger farmers to benefit from warehouse receipts. More work to build new and stronger relationships with buyers in the South of the country would de-risk reliance on individual processors, such as Avnash for rice in Tamale that currently presents a demand side risk.

Access to working capital was found to be the principle constraint to agribusiness growth. This is followed by a lack of mechanisation, which is partly due to a lack of access to capital to buy equipment. Crop losses are always a major threat to SHFs and so micro-insurance, if appropriate schemes and premiums can be found, could be a critical way to mitigate the growing impact of climate change and protect farmer livelihoods.

While this assessment did not hear from farmers directly, no evidence was found to suggest that agribusinesses were short-changing farmers or attempting to overcharge for services. However, it would be prudent to consider some safeguarding mechanisms that could be implemented for smallholders in contract out-grower schemes. These include facilitating greater access to market information, strengthening group leaders to negotiate terms and prices with aggregators and input retailers.

All firms interviewed cited significant growth in their business, attributed primarily to the adoption of the Advanced Model, but also as a result of MADE facilitating partnerships and supporting networking. A large proportion of this growth is due to productivity increases among out-growers as a result of higher yields and utilisation of greater acreage. For commodities such as rice and maize, aggregators typically quoted yield increases of 100 percent as well as plot size increases from 1-2 acres to 3-4 acres. These results are undoubtedly due in large part to MADE's support and are also likely to have been helped by the government Planting for Food and Jobs (PFJ) project, which has subsidised fertiliser and certified seeds for small farmers for the past two years. What cannot be determined by this assessment is how the increases in productivity translate to increased farmer incomes.

The value of B2B and B2F partnerships in achieving these results has been through:

- Enabling the provisions of more, and better, products and services to out-growers by utilising service delivery partners;
- Improving access to working capital, through the sharing of input and service credit arrangements between lead firms and support enterprises to address cashflow issues and enable greater investment in out-grower schemes;
- Greater access to markets through new relationships with value chain actors to drive business expansion and demand for SHF crops.

To sustain and expand the results MADE has achieved with its partners, the following priorities are recommended in the short term:

- sharing these results widely with key stakeholders and the Northern Savannah Ecological Zone (NSEZ) agribusiness community;
- facilitating replication of MADE's facilitative approach and concepts where possible;
- building further market linkages; finding ways to increase access to capital finance; and
- promoting the further roll-out of mechanisation services.

In the longer term, smallholders will need access to market information to be able to negotiate with suppliers and off-takers. MADE also has a great opportunity to build on the positivity around the performance of women farmers and should have a stronger gender focus in future to leverage this, see the MADE Gender Assessment (March 2019). Finally, facilitating the development among out-grower schemes of dry season crops, such as vegetables, under small-scale irrigation will help to protect farmer incomes and build resilience against climate change.

SECTION 2. INTRODUCTION

The approach taken to this assessment is described below, including details of the key informants and factors that shaped the research.

COMMERCIAL PARTNERSHIPS ASSESSMENT METHODOLOGY

Of the 62 current MADE partners, 25 were interviewed for this assignment, as selected by the MADE team to cover a range of business types. In addition, meetings were arranged with a few non-MADE stakeholders. The diversity of interviewees is described below:

- **MADE-supported agribusinesses.** Fifteen LPFs and ten SEs were interviewed. Five of the former did not have any linked SEs. Of these businesses, eight were engaged in input retail and twenty-one in crop aggregation, with four involved in both.

Geography.

- **Figure 1** shows the locations of the MADE partners interviewed. Nine were in the Upper East, six in the Upper West, five in the Northern Region, three in Bono East and one with a headquarter in Kumasi, Ashanti Region.
- **Non-MADE stakeholders.** Five stakeholders who have commercial relationships with MADE partners were interviewed, including processors, financial institutions and input distributors.
- **Crop types and diversification.** The businesses included in the assessment were involved in the production of a range of crops, including cereals, legumes, tree crops and vegetables.
- **Scale of SHF outreach.** The MADE partner firms interviewed work with individual SHFs and farmer groups, both as producers for aggregation and as consumers of inputs and services. Partner outreach is varied and ranges from around 1,000 to over 12,000 SHFs. In total, the fifteen interviewed LPFs had a SHF outreach of 45,380.
- **Length of partnership with MADE.** Some businesses have partnered with MADE from Year 1 (Y1), such as [REDACTED], whereas others have only been supported for the past two years, e.g. [REDACTED].

PSD Ltd is the service provider engaged by Nathan Associates to lead this collaborative assessment. The company specialises in market systems and inclusive business development with a focus on Sub Saharan Africa and smallholder agriculture. Two PSD Ltd consultants were supported by two consultants who were familiar with the MADE team throughout the interviews. Table 1 lists the agribusinesses interviewed, their role in respect to MADE and the region in which their operations are based.

In addition to the owners and managers of the agribusiness, the assessment team also met with the following stakeholders:

- [REDACTED] (a large rice miller)
- [REDACTED]
- [REDACTED] (a fertiliser company)
- [REDACTED] (a major input distributor)
- [REDACTED] (food manufacturer)

A full list of interviews conducted for the assessment can be found in Annex 1 and the interview guide questions in Annex 2. To provide a more in-depth look at the cross-section of MADE partners included in this assessment, ten 'snapshots' have been developed focusing on their business and farmer relationships. These can be found in Annex 3.

As well as the information elicited from the interviews, the assessment team reviewed programme documents, such as partner profiles and snapshots, quarterly reports, the Gender Assessment and the recent FEA Assessment Report to triangulate and contextualise findings for this report.

Figure 1: Map of Interviewees

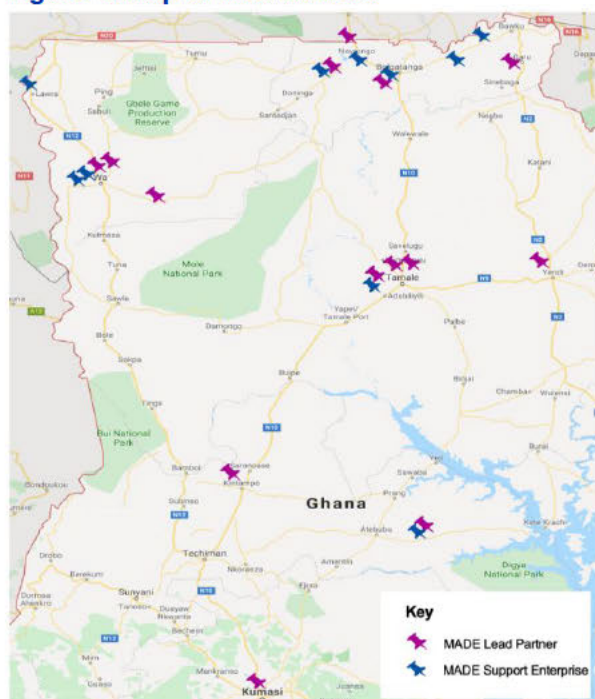


Table 1: List of MADE Lead Firms and Support Enterprises Interviewed

REGION	AGRIBUSINESSES ASSOCIATED WITH MADE		
	NAME	TYPE OF ENGAGEMENT	SHF OUTREACH
Upper East	[REDACTED]	Lead Firm	3,640
	[REDACTED]	Lead Firm	1,500
	[REDACTED]	Support Enterprise	
	[REDACTED]	Support Enterprise	
	[REDACTED]	Support Enterprise	
	[REDACTED]	Lead Firm	3,380
	[REDACTED]	Lead Firm	3,380
	[REDACTED]	Support Enterprise	
Upper West	[REDACTED]	Lead Firm	4,420
	[REDACTED]	Lead Firm	1,500
	[REDACTED]	Lead Firm	2,600
	[REDACTED]	Support Enterprise	
	[REDACTED]	Support Enterprise	
	[REDACTED]	Support Enterprise	
Northern Region	[REDACTED]	Lead Firm	3,380
	[REDACTED]	Lead Firm	2,860
	[REDACTED]	Lead Firm	1,040
	[REDACTED]	Lead Firm	2,600
	[REDACTED]	Lead Firm	2,080
	[REDACTED]	Support Enterprise	
Bono East	[REDACTED]	Lead Firm	3,640
	[REDACTED]	Lead Firm	4,940
	[REDACTED]	Support Enterprise	
Ashanti	[REDACTED]	Lead Firm	4,420

LIMITATIONS TO THE STUDY

There were a number of limitations to this study, including:

- **Short notice:** Due to end of year holidays, the timeline between contracting PSD and deploying them to the field to conduct in-country interviews meant that the consultants had just two weeks to read and prepare ahead of travelling to Ghana. The London-based Programme Manager and Chief Technical Advisor held a half-day in-person meeting to provide as much context and information relating to the programme in order to off-set this limitation. Although, the PSD consultants were not able to participate in the interview planning – i.e. prioritising which companies to visit. The MADE Ghana team did an excellent job of selecting a range of interviewees and planning a complex itinerary.
- **Assessment conducted in December:** Conducting a study in the run up to the end-of-year holidays was not ideal, as it is a very busy period for all parties involved. In addition, National Farmers Day was held on December 6, therefore some interviewees were unavailable as they attended the event.
- **No contact with SHF:** The study would have benefitted from additional interviews with SHFs groups to gain some first-hand feedback on the risks and challenges they perceive in their relationships with agribusinesses.

Although this assignment was focussed on the commercial B2B and B2F relationships stimulated by MADE, the consultants did not review any contractual documents during the course of the assignment. Valuable face-to-face time with business representatives was best used to understand their perceptions of partnerships and business growth issues, rather than examining documentation. In addition, the consultants are not contract law specialists and would not have been well positioned to comment on contract documentation. The pertinent information sought at interview was whether informants felt they had the right approach to managing partnerships, with or without supporting contracts, and the value of MADE's support.

The consultants also note that while most businesses were very forthcoming about their commercial information, some were reticent in sharing sensitive data – even with a development partner. Some smaller businesses were not able to report on their revenues or growth predictions as they were less mature in their financial literacy. There is always a tendency for businesses to say what they think an interviewer wants to hear, particularly when they are hoping to receive more support from a development programme. As much as possible, the consultants avoided asking leading questions about the role of MADE and focussed instead on understanding key business drivers, relating these to MADE interventions, where relevant.

REPORT STRUCTURE

This report begins with a brief introduction to MADE in Section 3, centring on the interventions during Phase 2 of the programme (Years 5 and 6), which are most relevant to interventions relating to commercial partnerships. The findings of the research are presented in Section 4, firstly by relationship type - business to business (B2B), business to farmer (B2F); then, relationships between MADE partners and financial institutions. This section of the report also looks briefly at findings on the impact of other MADE initiatives on business performance. In Section 5, constraints and opportunities are discussed; both on the supply side and the demand side, including an analysis on the safeguarding of smallholder farmers in contract farming situations. Section 6 presents conclusions on revenue growth for both MADE partners and their out-growers that can be attributed to the adoption of commercial partnership arrangements. Finally, Section 7, includes recommendations for future programme interventions.

SECTION 3. FACILITATING PARTNERSHIPS

The Market Development Programme for Northern Ghana (MADE) commenced in 2014, initially as a four-year market systems programme targeting the NSEZ. The programme promotes the adoption of innovative business models and uses a facilitative approach to develop the capacity of agribusinesses to build more effective smallholder supply chains. The programme initially focussed on a small number of priority crops, however this proved limiting on the scope of activities and in Phase 2 the programme adapted to a more suitable focus on fostering the energy of the most dynamic agribusiness, regardless of commodity focus.

MADE introduced changes to the expected level of SHF engagement in Y4 (2017/2018), requiring partner firms to supply smallholder out-growers with a bundle of critical inputs and services specified under the description “the Advanced Model”. The firm is not obliged to provide all the services itself, but is allowed to work with other service providers in a support enterprise arrangement. This has resulted in a deepening of commercial linkages in the region - an important unintentional consequence of the introduction of the Advanced Model. MADE also introduced the concept of Farm Enterprise Advisors (FEAs) who are trained field staff engaged to select and manage out-grower farmer groups. The operational costs of FEAs, such as fuel for their motorbikes, have been subsidised by the MADE programme while businesses test and adopt the concept. Similarly, MADE also introduced Business Development Advisers (BDAs) to input retailers to build their relationships with farmer groups, improving uptake and usage of inputs and helping connect them to markets. When successfully implemented, FEAs and BDAs help agribusinesses to reduce side-selling, improve yields and crop quality and increase overall volumes of offtake. An evaluation of the implementation of this approach can be found in the recent FEA Assessment Report (MADE, 2019).

In December 2017, a two-year extension to Phase 2 was granted to allow MADE to widen the results of its work and to encourage further deepening of the B2B linkages across the value chains. In addition to facilitating these specific partnership arrangements, MADE also ran a series of networking and training events to introduce businesses to one another and develop relationships which would otherwise not have come about.

MADE's other priority during Phase 2 has been to ensure the sustainability of out-grower business models by supporting partner firms to improve their operational and financial management. This has included the development of digital data management platforms, training in entrepreneurship, connecting firms with suitable business development advisers and organising a Business Network Platform. This phase of the programme has also seen the introduction of some demand-side interventions, such as training on food safety and standards and the use of Aflasafe to reduce aflatoxin levels.

In addition, MADE has made inroads in the past year in sharing knowledge and results from the programme more systematically. On the FEA concept, MADE has engaged with the Ministry of Food and Agriculture's (MoFA) extension directorate to bring the farm advisory services and the public extension services into greater alignment. The programme also invited development partners and key government representatives to “Pause and Reflect” meetings, which are held each quarter to improve awareness on what MADE has achieved and to share lessons learned internally.

This assessment examines the progress to-date of a representative sample of the partnerships that MADE has brokered and supported over the past two years. It looks at constraints and opportunities facing lead firms and support enterprises, taking into account some of the broader context in which they work, and estimates the scale of growth for businesses and smallholders that can broadly be attributed to new partnership arrangements. Recommendations are then made on maintaining, enhancing and expanding the results of MADE's private sector interventions in a manner that sustains benefits to smallholders and, where possible, safeguards their livelihoods.

SECTION 4. ASSESSMENT FINDINGS

The feedback gathered from the key informant interviews (KIIs) was uniformly positive about the health of each business, the state of its commercial relationships and arrangements with SHFs, the value of the Advanced Model and on expectations for growth.

In order to discuss the commercial relationships of MADE partners with clarity, those that relate to financial services are covered separately from those relating to the delivery of agricultural marketing business and services. The relationships that relate to agricultural activity have been classified as B2B MADE, B2B non-MADE, and B2F for those between agribusinesses and farmers.

B2B RELATIONSHIPS

Types of relationship

The research covered nine lead partner firms with a wide range of commercial relationships that had been facilitated by MADE. In addition, lead firms and support enterprises identified further existing relationships that had been strengthened with support from MADE. For ease of analysis, these relationships have been classified as follows:

Formal: The relationship is encapsulated in a document, which sets out terms and conditions.

Informal: The relationship is not documented but operates on mutual trust.

In addition, several types of informal relationship were observed:

Commercial: Despite the lack of documentation, the relationship entails a financial transaction, such as a small percentage of interest charged for a credit loan (e.g. for inputs), or a confirmed volume of commodity to be bought or sold.

Bartering: Goods and services exchanged, e.g. an input supplier receiving certified seed from an aggregator in exchange for fertiliser, SHFs reimbursing aggregators for support bundles with bags of produce.

Non-transactional: A relationship in which no goods or services are exchanged in a transaction. For example, some businesses described strong relationships whereby they would help each other out by sharing resources such as tractors or FEAs, even where the other party was a potential competitor.

The consultants identified varied attitudes from stakeholders with regards to the importance of formal documents. A prevalent perception was that if a partner was seen to be trustworthy, the word “trust” was used extensively, then no contract was needed. A good example of a close-knit business community is illustrated via the input retailer and aggregator [REDACTED], who engages mostly on an informal basis with its farmers, supplier and customers. The company has four supply side relationships with input distributors, five partnerships with aggregators, three of whom are supported by MADE, as well as arrangements with ploughing service providers.

At the other end of the spectrum, the aggregator [REDACTED] stated that they would not enter into commercial relationships with any business without a contract. The company had had experiences with buyers defaulting and expressed the difficulty in finding companies who would enter into formal contracts as their most significant factor constraining business growth. One interviewee mentioned that some businesses were ‘frightened’ by the potential for legal challenges and costs if they did enter into contracts, although no evidence to support this concern was heard during the assessment interviews.

No significant difference was found between the types of relationships and the satisfaction of businesses with these relationships. One area of dissatisfaction expressed was in the limitation of credit terms given by input distributors (such as [REDACTED]) in formal contracts whereby only a proportion of inputs could be taken on credit. Large companies can of course dictate terms to smaller ones, and there were examples of large companies defaulting on contracts, such as [REDACTED] failing to honour a minimum supply contract with [REDACTED] for sorghum, as described in the Demand Side Risks section below.

Only a few examples of failed partnerships were found among the companies interviewed, although some businesses have been MADE partners for several years and may have exited some relationships prior to being involved in the partner selection for MADE in 2017. [REDACTED] had a disagreement with their SE, [REDACTED], and terminated the relationship. Input retailer [REDACTED] also expressed dissatisfaction with aggregator [REDACTED] as a MADE-introduced SE with whom they have stopped working. These stories are to be expected in any business context, whether triggered by poor behaviour and bad intentions or through misunderstandings. Some issues can be resolved; [REDACTED] experienced a problem with a SE, [REDACTED] which had fallen behind on payments. Instead of ending the relationship, [REDACTED] wanted to continue working with [REDACTED] once the problem was resolved and still saw them as valuable partner.

Aggregators

One of the greatest benefits to aggregators of MADE's partnership support has been their ability to get inputs on credit by developing new or improved relationships with input retailers. For [REDACTED], this concept was entirely new and the business owner, [REDACTED], had to be persuaded to try taking inputs on credit from [REDACTED]. She started on a small scale and now takes out credit for all her 2,000 out-growers; the farmers associated with her business have found the products to be of good quality. The aggregator [REDACTED] also benefitted from introductions by MADE to input suppliers. He has chosen to work with [REDACTED] seed suppliers as a result and has found that their seed sachets are much better than the metal containers that other seed companies use, which overheat in the Northern climate and spoil the seeds.

The business owner [REDACTED] of [REDACTED] had never been in a formal partnership prior to the arrangement facilitated by MADE between his company and [REDACTED] and [REDACTED]. He had also developed a good relationship with input supplier Simple Prince to whom he was introduced through MADE. As a result of now being able to take inputs on credit from [REDACTED], he no longer needs to take out a loan. The interest rate charged is minimal at 5 percent. The arrangement [REDACTED] has with [REDACTED] is for [REDACTED] to supply seed in return for the provision of tractor services.

We have MOUs with all of our MADE partners – they are very useful and add to the trust between us.

Maize and soya aggregator, [REDACTED], has benefitted from an informal partnership arrangement with input retailer Simple Prince who delivers all inputs directly to the aggregator's farm on credit and charges no interest. Alokodongo repays in kind at the end of each season with certified seed. As mentioned above, [REDACTED] has numerous other arrangements with MADE partners, such as [REDACTED], who now buy all their inputs from the company with a formal contract (credit at 5 percent interest) following facilitation from MADE. Yelumde also sells certified seed to [REDACTED] and takes inputs in return.

Another notable benefit to aggregators of the increased and improved B2B relationships facilitated by MADE is access to mechanisation service providers. Tractors are an expensive investment (c. GHS [REDACTED]) for a small company and although often at the top of the wish-list for most aggregators are always in short supply. [REDACTED], who aggregate from 2,100 out-growers, reported that their most important commercial relationship is with [REDACTED], a service company that supplies tractors, combine harvesters and shellers. [REDACTED] pays twice a year, normally in June for pre-season work, and then again in December for post-harvest services. This relationship is currently informal, but the firms are in the process of formalising a contractual agreement. Despite this additional assistance, and with various other informal arrangements with other mechanisation service suppliers, [REDACTED]'s most pressing issue is in meeting the demand of farmers for ploughing and threshing services.

Input retailers

Benefits to input retailers of the brokered partnerships include sales growth resulting from access to large numbers of new SHFs from MADE aggregator partner firms. Wumpini, for instance, estimated a 5 percent sale growth last year and are forecasting a 7-8 percent increase in the current season. Another MADE partner, ██████████, reported a massive 60 percent increase in their business in 2018-19 as a result of partnerships brokered by MADE. Although the business was originally just an input retailer, it now generates 30 percent of its revenues through aggregation from 520 soybean farmers. ██████████ supplies Seyan with mechanisation services as part of a two-way contract. Although the two businesses knew of each other prior to MADE's intervention, it was the programme that brought them together into what is now a mutually beneficial arrangement.

██████████ is another good example of an input retailer that has diversified into aggregation at a small scale. The company was introduced to ██████████ through MADE, to whom it is contracted to supply a range of inputs. The company has also benefitted from introductions to input distributors for the supply of vegetable seeds. ██████████'s CEO, ██████████, reported a sales increase of 20 percent as a result of the new partnership arrangement. However, in common with many of the interviewees, Mr ██████████ perceived the greatest difference that engaging with MADE has had on his business has been through support to FEAs/BDAs.

One of the strongest signs that the use of partnerships to secure business growth has been embedded as a market system change, is that firms are replicating it independently. ██████████'s success in reaching more SHF consumers via its two MADE partners has led the company to take the same approach with a new aggregator, ██████████. It is too early in the relationship to determine its success, but it represents a positive development and one that is expected to be replicated elsewhere in the future.

Included in the research were two large input distributors, ██████████ and ██████████, who are not MADE partners, but who are important suppliers to both MADE aggregators and input retailers. ██████████ is a major player in the distribution of fertiliser and agrochemicals and irrigation equipment. It is Ghana's largest seed supplier. In addition, the company undertakes commodity trading under its Kopa brand. ██████████ supplies a number of the MADE partners interviewed – either as input retailers or directly to some aggregators such as ██████████ and ██████████.

██████████ has a total of 34 commercial partner aggregators across the country, 14 of whom are in the Northern Regions, and this sales model generates 45 percent of their business. This operation is a scaled up version of that seen among the smaller input retailers supported by MADE, e.g. ██████████ also offers a business advisory service to SHFs in the same way that BDAs do, has 15 agronomists who act as agents to check what is happening in the field, and have moved beyond retail to aggregate crops themselves. Each season the company enters into a written contract with its partners, and interest is high with 75 further companies applying to join their scheme last year. However, RMG is planning to “scale carefully” by both adding partners as well as building the capacity of existing ones.

The ██████████ Sales Agronomist interviewed, Mr ██████████, saw Northern Ghana as a very promising growth area for ██████████ given the high availability of land and with more than 90 percent of population being farmers. The company has also recognised how vital farmer data is to their business and is in the process of developing their own bespoke digital data collection platform to roll out to its partners.

Benefits of B2B relationships

- Access to resources without needing to invest in them within own business (e.g. mechanisation, storage)
- Access new markets or new suppliers via partners
- Better information for forward planning (demand forecast for input retailers)
- De-risking (certainty of market or supply, more choice of suppliers or markets)
- Cashflow management (e.g. inputs on credit)
- Access to finance
- Diversification into new value chain activities (from input retail to aggregation)
- Knowledge sharing

■■■■ is also a key player in the fertiliser industry. The company currently wholesales for a large fertiliser importer as they do not yet have their own license to retail or brand in Ghana. The company runs a programme called ■■■■, through which they supply fertiliser on credit to farmers via a range of agribusiness partners. ■■■■ were introduced to ■■■■ by MADE, and ■■■■ also supply other MADE partners such as ■■■■. They have also partnered with MoFA to conduct free soil tests for SHFs to increase positive brand awareness and have signed an agreement with MoFA to develop a national soil fertility map; this exercise is in preparation for opening a manufacturing plant in Ghana in 2021. The results of their extensive soil testing will enable them to make fertilisers tailored for the Ghanaian market, which should increase competition in the market that is currently dominated by a few players, such as ■■■■ and ■■■■. Being able to demonstrate improved yields through fertiliser formulated for local soils will be a key advantage for the company if managed well, which will be highly beneficial to SHFs.

B2F RELATIONSHIPS

Relationships between agribusinesses and SHFs are key to ensuring a strong value chain. Some form of written contract with an aggregator provides security to SHFs that they will have a ready market at the end of the season. In addition, this written contract can include prices (or minimum prices) and agreements on input loan arrangements, often in the form of number of bags of offtake in exchange for inputs and services. These contracts also enable aggregators to gain greater visibility of their overall production volumes and evidence of inputs and services provided on credit to farmers. However, as per the discussion on formal B2B contracts in the previous section, one would not expect such documents to be meaningful in a legal way - their true value lies in the relationship they represent between SHF and aggregator.

SHF group structures

For practical purposes, most aggregators have relationships and/or contracts with groups of SHFs rather than with individual farmers. Group models are good at spreading the risk for agribusinesses since if one farmer in a group fails to supply commodity for recovery, the business can leverage this shortfall from the other members of the group, under a guarantee arrangement. ■■■■ was one of the companies which reported having contracts with individual SHFs, although the ambition was to move towards contracts with lead farmers. ■■■■'s business is seed multiplication, which requires more experienced SHFs, operating at bigger scale; therefore, the relationship is likely to be more peer-to-peer than with a typical small rural cereal farmer. Another aggregator, Sky 3, has a range of different agricultural ventures, and while it works with groups of SHFs for their maize, rice and cassava aggregation, the company has individual contracts with their mango farmers, who operate larger farm sizes.

The consultants observed a number of different ways in which groups of SHFs are organised. Some groups already existed within local communities, some will have been set up as the result of prior or ongoing interventions by other development actors, and some have been set up by aggregators by design to suit their operational needs. It is noteworthy that **no issues were reported by any interviewee in their ability to engage with farmers organised into groups**. One reason for this might be that a large number of development programmes have invested in building smallholder capacities and encouraging the formation of production groups; the project most frequently mentioned was the USAID-funded ADVANCE project. However, there may be cultural reasons for better group dynamics as well. The challenges of poor group management stifle the ability of agribusinesses to develop out-grower schemes in other African countries, and the lack of such hurdles in Northern Ghana would appear to be a great opportunity for fostering smallholder supply chain growth.

The principle forms of farmer groups mentioned in the KIIs were farmer-based organisations, community-based groups, or groups led by 'lead' farmers. The former are structured around key farmers who represent and manage the group. Lead farmers tend to have gained a reputation as knowledgeable and successful in the local community and have a number of community followers who rely on the lead to pass down market information; they have the ability to support and train other farmers, whether through their own initiative or by appointment by an aggregator. In doing so, they

can provide aggregators, through their FEAs, with farmer details and total requirements for inputs, and then receive a small margin on the group's recoveries in return.

Examples of the different kinds of SHF groups accessed by MADE partners include the aggregator [REDACTED] who works with existing Village Savings and Loan Groups (VSLAs) formed by the [REDACTED]. Mr [REDACTED], the owner of [REDACTED] is based in Kumasi and he relies on information from local MoFA offices to identify the best farmers in each area to be recruited to act as his lead farmers. He then asks the farmers to find a further 100 suitable SHFs to form a production group. In contrast, aggregator [REDACTED], based in the Upper West, finds and contracts individual farmers in communities within the company's defined operational area. FEAs conduct local background checks on each farmer and the company requires them to have basic understanding of the out-grower model and be 'trainable'. Training is then conducted on the firm's own nucleus farm.

Service and recovery arrangements

All the arrangements made by aggregators are designed to maximise their recovery rate from SHFs, i.e. the value of commodity received against the value of inputs supplied. Recovery from SHFs is usually collected in kind through an agreed number of bags of commodity. For example, for maize it was typically found that farmers were expected to return 3 x 150kg bags per acre in repayment for their input bundles, although this varied depending on the level of services received.

The standard practice reported by MADE's partners in the KIIs was for the FEA to engage directly with a lead farmer who would then be responsible for identifying the services needed by his/her grouping of SHFs, and a full list of farmer biodata. Under these arrangements, aggregators are not aware of the arrangements made downstream between lead farmers and their SHFs. The size of farmer groups serviced by FEAs varies widely, with some companies setting limits (e.g. Sky-3 Investment has a limit of 250) to ensure they can deliver adequate support.

From the sample of MADE partners interviewed, most had formal contracts in place with SHF groups. The types of information documented in the contracts normally stipulated the area of land to be cultivated, the amount and value of inputs supplied, the recovery level and the level of extension services offered. Some companies also mandated that farmers sell all or a proportion of their extra crop, after recovery, to the aggregator.

[REDACTED] has found that having formal contracts in place is a key part of building trust with their farmers, and they cited this trust with its SHFs to be core to their business model. The strength of this relationship works to the extent that the farmers will release their crops without full immediate payment. The company's SHFs are happy to wait until the aggregator has received payment from their buyers before they themselves get paid.

Only two of the aggregators interviewed did not have formal contract with farmers. These businesses, [REDACTED] and [REDACTED], work with relatively small numbers of farmers and have been managing with informal, trust-based arrangements. [REDACTED] works with 750 vegetable and cereal farmers and uses three FEAs to manage groups of 50-75 under lead farmers. However, the company has been educating the SHFs on the importance of contracts and will be implementing them in the coming year.

It was found that mechanisation services are mostly charged separately (cash in advance) by aggregators, or their support enterprises, rather than its inclusion in bundles of inputs and services supplied on credit terms. [REDACTED], for example, charges GHS1[REDACTED] per acre for ploughing services. The company takes no margin on this service, which is delivered by a separate service provider. However, some aggregators reported adding small margins (e.g. 5 percent) to mechanisation services that they arrange for out-growers.

Aggregators in general seemed satisfied that the arrangements they had with out-growers for the supply of bundles of inputs and services were working well. Agribusiness owner, [REDACTED] explained that many of her out-growers were now able to pay cash for inputs rather than take them on credit as a result of their improved farming incomes. Accurate amounts and higher quality of inputs, coupled with FEA support, have led to substantial increases in SHF yields for MADE partners. For example, Rhinosas saw increases from 5 x 150kg bags of maize to over 10 bags per acre. More typically, yields were quoted at 50 to 60 percent increases.

One of the topics discussed with MADE partners was the manner which they managed agricultural risks to out-growers, such as adverse weather (flooding or drought), pest and disease attacks or natural disasters, such as fire. There are some instances where insurance cover has been arranged, and this is discussed further in the Financial Relationships section below. Where insurance was not in place and crop failures had impacted farmers' abilities to pay back credit received, aggregators explained that they would allow them to pay back over an extended period (e.g. a year or two). When asked, none of the aggregators reported having clauses in their contracts with farmers to deal with such eventualities.

Planting for Food and Jobs (PFJ)

PFJ was mentioned frequently as the most visible way that the Government of Ghana was supporting agriculture, in particular by providing subsidised fertiliser and seeds. The PFJ project was generally regarded as a positive move, but there are some elements of it that do not work so well for the private sector actors. Most agribusinesses noted delays in getting fertiliser to the appropriate retail locations in time for each season. This has meant that in the last two years there has not been sufficient supply during critical periods to meet demand and agribusinesses have been unable to procure alternative supplies. Some partners noted that farmers reduced the amount of fertiliser applied to save money and this is likely to have affected yields adversely. The issue of quality of supply was also raised with some agribusinesses noting differences in yields between demonstration plots planted using inputs supply through the PFJ and others with inputs procured directly from suppliers such as [REDACTED] and [REDACTED]. One area visited near the Burkina Faso border was banned from the PFJ project this year because of worries that fertiliser would be obtained under subsidy and sold on, at profit, to producers across the border.

Gender

The attitudes expressed by firms in this study corroborate the two key findings in the recent Gender Assessment Report (MADE, 2019), namely that most agribusinesses have observed the benefits of working with female farmers and are now targeting them intentionally, and that recovery rates for women are higher than for men. When gender differences among SHFs were mentioned in the KIIs, all respondents found the performance of female farmers to be better than their male counterparts.

MADE partner [REDACTED], for example, stated that they were looking to increase the number of out-growers and planned to do so by recruiting more women farmers. The firm believes that because women generally have smaller plots, these are better managed, and that women are more reliable in repaying their inputs.

[REDACTED] found that the company's female SHFs were generally constrained to working with their husbands and often on marginal land. 35 to 40 percent of his out-growers are women and following a positive experience working with female soya farmers on an irrigation project supported by [REDACTED], he is looking to expand this number. [REDACTED] similarly entered a partnership with [REDACTED] Aba facilitated by MADE in which he works with six groups of women growing maize and soya and expressed his intention to target more female out-growers as he found them more trustworthy than men.

[REDACTED] has other reasons to advocate choosing female SHFs. The company has calculated that with manual harvesting they get 15-18 percent losses and with mechanisation it is only 2 percent. They sent four women to be trained on a MADE course for operating tractors. They noted that women were initially a bit slower, but that they took a lot more care of the tractors and never had a breakdown. Breakdowns normally take 3 or 4 days to fix and result in the tractor being out of service during critical periods.

FINANCIAL RELATIONSHIPS

Access to finance, in particular working capital, came up frequently in discussions as a major constraint from firms in both managing and growing their operations. The scale of the business

determines the nature and size of working capital required and the discussion below includes findings on how firms secure working capital and investment as well as the uptake and perceptions on agricultural insurance.

Access to finance

For the aggregators, insufficient access to working capital to purchase commodities can be fatal for the business; aggregators need scale to be successful. There were no reports of aggregators failing to pay their out-growers but several organisations had to manage the impact of late payments from large suppliers which badly affecting their cashflow.

Approximately three quarters of the businesses interviewed spoke of the difficulty in getting short- and long-term loans from their regular commercial bank, and the recent banking crisis¹ has made access to financial services in Ghana even more challenging. December to January are the most stressful months of the year as cashflow is tight. The requirements of the banks for collateral and/or a holding deposit means that businesses frequently have applications rejected from conventional banks. As an illustration of this issue, [REDACTED] has approached [REDACTED], [REDACTED] and [REDACTED] with no success. [REDACTED] tried to get a loan from Fidelity who they have banked with for years – they asked for GHS [REDACTED] and only got offered GHS [REDACTED] which they still haven't received. [REDACTED] also mentioned how hard it was to get agricultural loans, although [REDACTED] and [REDACTED] have both approached the company this year following MADE facilitation and [REDACTED] offered a GHS [REDACTED] uncollateralised loan against cashflow and record of sales to off-takers.

Money doesn't come when it is needed and is less than needed.

Those MADE partners that were successful in securing credit from banks reported annual interest rates on loans of between 35 percent and 48 percent during the 2019-20 growing season Sky-3 Investment has successfully secured a GHS [REDACTED] loan from [REDACTED] only to find that 10 percent was withheld to form their deposit.

The MADE programme has had some influence by introducing partners to [REDACTED], a 'non-bank' financial institution which started as an MFI and has grown, now incorporating the not-for-profit [REDACTED], which uses donor funds for project work and [REDACTED], which is its commercial arm. [REDACTED] has less stringent requirements than fully commercial banks, and [REDACTED] reported having secured a GHS [REDACTED] short term loan following MADE's introduction, but the interest rate was still 45 percent. Fortunately, the loan was required for just 3 months to smooth cashflow over a difficult period.

[REDACTED] focus is on what they term the 'nuclear farm' model, which is, in essence, a MADE aggregator. The Sinapi Aba Trust was introduced to [REDACTED] by MADE as a reputable and creditworthy client. Loans were provided directly to farmers, to whom [REDACTED] acts as a guarantor, providing support services and buying back produce at end of season, which it then sells and, with the revenue secured, pays back [REDACTED]. The success of this arrangement is demonstrated by the interest [REDACTED] has in paying [REDACTED] to train other SHFs. However, [REDACTED] is struggling to scale up their agricultural finance as their investee banks are reluctant to venture into the smallholder sector.

One of the most progressive funders mentioned in the KILs was Root Capital, who were introduced to [REDACTED] through [REDACTED]. The company has been working with this international funder for three years now and has an annual loan of GHS [REDACTED] at around 20 percent interest. A few of the partners interviewed are at a growth stage that requires multimillion-dollar investments. One of

¹ <https://www.theafricareport.com/17893/ghanas-financial-sector-crisis-is-now-part-of-the-election-campaign/>

MADE's most expansive partners is [REDACTED], a business based in the far corner of the Upper East Region; they attended the Africa Green Revolution Forum (AGRF) in 2019 and participated in their 'Deal Room'. They have not yet secured the funding that they are looking for (\$[REDACTED]) but are speaking to various national and international investors. [REDACTED] has also been seeking investment for new storage facilities and growth. The company approached [REDACTED], [REDACTED], [REDACTED], but were unsuccessful.

Insurance

Of those companies who discussed crop insurance, there was an even spread between those who already held it, those who were looking into it and those who had decided it was too expensive. Of those companies that already held policies, most are either involved in foundation seed multiplication (i.e. relatively high value crop) or had been strongly encouraged to take it by the inputs distributor [REDACTED]. [REDACTED] for example has taken advantage of an insurance package which [REDACTED] negotiated and then paid for all their farmers, recouping it as part of the agreed recovery. This costs 6 percent of total crop value and included drought, uncontrolled fire, infestations and bad seeds, but the additional cost was not popular with the SHFs. [REDACTED] also tried arranging crop insurance for their out-growers but has since dropped it as the farmers did not understand its value and did not want to pay the premium.

A few companies hold insurance for their own farms and then support out-growers in the highest risk areas (e.g. those prone to erratic rainfall, drought or floods). [REDACTED] has investigated insurance and decided that it wants to create its own insurance fund in three years. The owner, [REDACTED], is currently putting "a few" Cedis aside to build a fund which he hopes will be able to provide an insurance product for its farmers once the fund is large enough. As mentioned previously, [REDACTED] also offers savings and loans to SHFs through an affiliate company.

The consensus view of those who believed insurance was worthwhile was that the farmers should be able to bear the cost. [REDACTED] was the most commonly cited crop insurance provider, and [REDACTED] was also mentioned as well as [REDACTED].

OBSERVATIONS ON OTHER MADE INITIATIVES

Although this assignment did not set out to directly examine the impact of MADE activities beyond the facilitation of business partnerships, there are a number of interventions which are pertinent to the success of MADE's agribusiness partners that arose during the KIs. The most significant was of course the Advanced Model and the introduction and support of FEAs and BDAs. In addition, companies also reference the digital tool M-Access for collecting farmer data.

FEAs, BDAs and the Advanced Model

The feedback from partners on the value of FEAs and BDAs, and the quality of the training and increased performance as a result of MADE's activities was universally positive. All but one of the lead firms and support enterprises interviewed stated that they would be maintaining the number of FEAs that they employed after MADE support concluded. Allah is Able was the only business that reported it would reduce FEA numbers, from 19 to six, as they feel they cannot bear the expense and will be aiming to deliver the same services more cost effectively by using community agents instead.

The benefits expressed by the MADE partners included the following: the ability of managers to do other work when FEAs were in the field supporting SHFs; a reduction in phone calls being received from farmers demanding access to promised services, the ability of FEAs to identify, select and train suitable out-growers; the higher yields and improved productivity of SHFs and the improved rates of recovery. They also reported recoveries being managed more rapidly; and the ability of FEAs (if incentivised) to weed out poorer SHFs and select better ones, as well as increasing farmer performance in terms of crop quality.

Partnering with MADE has helped us scale up thanks to the FEA programme. We were limited previously as we didn't have enough FEAs, but we will be doing training of trainers to create more.

██████████, *Managing Director*, ██████████

M-Access

A MADE needs assessment revealed that partner businesses needed tools to better manage information on their SHF suppliers. The programme therefore implemented a solution (M-Access) to capture and manage farming data via a mobile app. The majority of MADE partner firms attended a one-day training on the tool in the summer of 2019 and 337 FEAs were trained at the same time in a range of locations. The initial feedback was positive, but problems were reported during implementation, e.g. fewer than 40 percent of the FEAs had appropriate phones or did not have the right version of Android to support the application.

The issue of data collection, and the use of M-Access arose in more than half of the KIIs. Three businesses mentioned that they were using the application and were very happy with it; three others were unhappy with the app. The remainder were either behind the curve in adopting it or stated that the roll out was too late for the season and were managing with either paper records (including MADE's passbooks for farmer records) and/or entering data into Excel. These companies were mostly planning to digitise their SHF data management in the near future. There was, however, a level of uncertainty about how the system would be managed once MADE finished, and there were questions on how it would be operated, e.g. how much each firm would need to pay to continue using the app, where data was being stored and who owned it.

Several partners, irrespective of their M-Access uptake, reported that they had been enlightened as a result of the MADE training as to the value of data for their businesses. ██████████, for instance, had found improved data useful to help secure a loan from ██████████, and ██████████ similarly has been able to use better data to secure 1,000 acres of input funding from ██████████.

SECTION 5. CONSTRAINTS AND OPPORTUNITIES

SUPPLY SIDE OPPORTUNITIES

The direct impact of MADE on the productivity and income growth of smallholder farmers in Northern Ghana as a result of a number of interventions through the lifetime of the programme was clearly articulated in this assignment's KIIs. The supply-side focus, primarily through the introduction of, and support to, FEAs/BDAs and the Advanced Model can be seen among the partners interviewed. There were high levels of satisfaction expressed with both the B2B and B2F relationships encouraged and facilitated by MADE, and strong indications that businesses plan to sustain them.

There is no question that many of MADE's partner businesses have the ability and the appetite to grow further, by both sourcing from greater numbers of SHF suppliers, and by supporting farmers to increase their farm sizes. The overwhelming feedback from interviews was that aggregators were oversubscribed, sometimes by an estimated threefold, by farmers wishing to join their schemes. It was also reported that smallholders in the region were not limited in being able to access more land. The indications are that, if funds and markets are available, there is plenty of scope to expand production.

The overall agricultural environment is changing – its more highly charged than it was five years ago – educated people are moving into agriculture and investing in large scale farms and bringing finance into the region.

██████████, *Executive Director*, ██████████

Growth through partnerships

The facilitation of partnerships by MADE has been very well received, and firms have found their own ways to either formalise working relationships with contracts or simply by building trust with informal arrangements. On the supply side, increasing aggregators access to services for their farmers or to better inputs with improved credit arrangements, have all stimulated more business for all concerned. There will undoubtedly be further opportunities to make introductions between aggregators, input retailers and service providers, and the uptake will require less input from MADE now that partners have seen the benefits.

It may be of particular value to encourage relationships between aggregators and large input distributors such as ██████████ and ██████████, who have ambitious plans for growing networks and increasing sales in Northern Ghana. RMG's focus on improved data management and introduction of insurance would be beneficial to all in their value chain. ██████████'s soil testing is also a welcome introduction and should become even more useful to the farming communities once their tailored fertiliser is available. Both also offer inputs on credit terms.

Dry season production

Since farming is seasonal there is a real pressure on resources at critical times of the year, most notably land preparation, planting and harvesting. In the middle belt, in which the MADE programme encroaches, there are two growing seasons, whilst there is only one in the North. In the North there are 3-4 months of agricultural downtime, but a number of companies and farmers were found to be exploiting this opportunity by growing dry season crops. ██████████ was able to piggyback on funded programmes by ██████████ and others to find markets for its organic baobab and shea nuts. These are harvested between January and March which are the "hungry months" just as the main cereal crops are planted and farmers typically have less money.

There are also opportunities for dry season production using small scale irrigation. Prices for horticultural products rise during these periods and make the opportunity particularly lucrative.

Several MADE partners have ventured into irrigated vegetables with their SHFs, e.g. [REDACTED] worked with women farmers on a [REDACTED] irrigation project, generating revenues in their down season and [REDACTED] supplied inputs on credit to SHFs for the production of peppers under drip irrigation.

These dry season crops offer opportunities to smooth cashflow for farmers and businesses alike. By helping their out-growers through the lean period, aggregators are strengthening their B2F relationships and the likelihood that their SHFs will be productive and loyal in the main season.

Digitisation in smallholder farming

MADE has introduced the benefits of better data management of out-grower schemes and the message was well received by aggregators, whether or not they have fully implemented M-Access, or are using different tools. B2F relationships are strengthened by the more informed decisions aggregators can make based on more accurate and timely digital information on their farmers. There are numerous options for agribusinesses seeking to employ digitised out-grower management systems, from open source software through to software as a service. There was a lot of uncertainty around the sustained future use of M-Access which needs to be resolved.

There are further opportunities for firms and farmers to build on MADE's digitisation work to leverage out-grower data:

- Aggregators have better records of their out-growers – including their estimated production volumes based on land size and yield estimates. This can help them to plan ahead better in terms of managing the crop sales.
- A good system, well implemented, can significantly increase the effectiveness of an FEA or BDA. This potentially enables them to manage more farmers and also help aggregators to better manage, monitor and incentivise their field teams.
- Farmers can also benefit from digitised data management if their production history is accurately documented by an aggregator in a manner in which they could also access. The data can serve as a form of know your client (KYC) information that financial service providers require to verify an individual's income – in this case the amount of produce a SHF sells each year. The combination of this track record as well as contracts from an aggregator can be ways in which SHFs can collateralise their membership of out-grower schemes, for example to access microloans to invest in their farms.

SUPPLY SIDE CONSTRAINTS AND RISKS

The opportunities outlined above are tempered by some risks and limitations on the supply side.

Lack of effective industry associations

MADE facilitated numerous B2B introductions that have led to productive partnerships and also held networking events to help agribusinesses to connect with relevant markets and service providers. In doing so the programme has been filling an apparent gap in the business enabling environment. It would seem that there is a lack of active platforms or business associations through which agribusinesses are able to find service providers or buyers. A number of bodies, such as the Seed Producers Association of Ghana, were mentioned in the KIIs, but for agri-partnerships to be able to flourish, such associations need to provide more active engagement opportunities for their members.

Access to finance

Agribusinesses perennially struggle to find the capital they need to grow their businesses, and it is the same story among MADE partners - only an estimated four per cent of formal bank lending goes to the agriculture sector in Ghana, despite it contributing approximately 19.7 per cent of GDP². There

² World Bank and OECD Data Set. World Bank, 2017. <https://data.worldbank.org/indicator/NV.AGR.TOTL.ZS>

are valid reasons for banks to be wary of the agriculture sector and SMEs in developing contexts can be short on management skills necessary to demonstrate their creditworthiness. International investors look for ticket sizes of \$millions rather than \$'000s and national interest rates are cripplingly high. The IFC³ identified four key challenges to Ghana's ability to attract sizeable (domestic or foreign) investment: first, domestic demand (market size) is insufficient to attract large investments that can benefit from economies of scale, unless these are export-oriented; second, macroeconomic instability creates uncertainty for investors; third, inadequate availability and reliability of basic infrastructure, such as energy and transport, and difficult access to land, deter investment; and fourth, weak managerial and entrepreneurial skills reduce firms' productivity.

There are no quick fixes to such challenges, but development partners can help with a range of interventions at both policy level and with innovations in the sector. Palladium's USAID-funded FinGAP (\$22m, 2013-2018) was one such recent programme. It identified that finance is difficult to mobilise for agriculture in Ghana due to:

- The widespread perception among financial institutions (FIs) that financing agribusiness is inherently riskier and less profitable than financing other sectors;
- High costs associated with serving smallholder farmers and SMEs;
- Sector inexperience and inappropriate financial products offered by financial institutions; and
- Limited availability of financial intermediation services for agribusinesses.

MADE has brokered some relationships between financial institutions and agribusinesses with positive outcomes. However, a more sustainable solution will be needed in the long term to improve the functioning of the agri-finance sector, with market actors fulfilling the delivery of intermediation rather than development partner programmes.

Crop losses

Crop losses, due to natural disasters such as drought, flooding, pests and disease, are the fundamental risk in agricultural supply chains and the terms and conditions in B2B and B2F partnerships contracts need to be effective in managing this risk. This is critical for SHFs, as by entering a supply agreement with an aggregator and taking inputs on credit, they bear all the risk of poor harvests. A key topic emerging from this assessment is the application of insurance for crop losses. The mixed reception by MADE partners to its value and adoption as well as the challenges in making it work effectively for small, disparate farmers is a challenge that needs to be addressed. Improving the models and increasing uptake will be important in de-risking SHF production and livelihoods as climate change disrupts weather patterns.

What is clear is that SHFs are much less likely to be able to afford agricultural insurance individually than in a group. The B2F relationships that SHF groups have with aggregators and input retailers are the best way for micro-insurance to be delivered at economies of scale and for insurance costs to be embedded in offtake contracts.

Lack of mechanisation services

Aggregators are struggling to serve the mechanisation needs of their SHFs. The lack of availability of tractors during high demand periods, particularly for land preparation, was identified as major constraint to production. This constraint was also highlighted in the recent MADE FEA Assessment, which found that,

The demand for mechanised services at (those) peak times vastly outweighs supply, and so SHFs are not maximising their productivity and incomes. When third-party mechanised service providers are used, it is often on an ad-hoc basis through local networks and community members who happen to have equipment, rather than a centralised leasing business with large fleets of machines for hire.

MADE FEA Assessment, December 2019

³ Creating Markets in Ghana - Country Private Sector Diagnostic, IFC, November 2017

Many MADE partners have their own tractors and also use tractor service providers to supplement their shortfall and expand their coverage. The programme has introduced partners to mechanisation service suppliers from the South as well as encouraging partnerships with specialised manufacturers. However, some aggregators reported that the quality of these southern suppliers was poor, for example with stories of slapdash work and short-changing farmers on acreage. In frustration, [REDACTED] of [REDACTED] recently sold a private vehicle to buy a tractor to expedite land preparation for his farmers and [REDACTED] noted that they had 500 acres of land waiting for ploughing. For the sector to maintain the pace of growth, aggregators may find that investing in their own machines is essential unless service providers with greater capacity emerge in the local markets.

DEMAND SIDE RISKS

Monopolies

Rice

After maize, rice is the most prevalent crop among MADE's partners. The experience of several of MADE's partners with rice processor Avnash illustrates the risks to small aggregators and their smallholder suppliers when there is one dominant buyer in the area. The potential for a major new market for rice in Northern Ghana via [REDACTED]'s \$30m rice processing facility in Tamale was illustrated in a previous MADE case study, and the investment opportunity for a Rice and Grain Aggregator (2016) describes a supply side rather than demand side constraint on rice the commodity. The company has three ways of buying paddy rice:

- Direct from farmers in the field with cash, which is not ideal and not favoured as it is risky carrying cash (c. 5 percent of paddy);
- From farmers who bring supplies to the factory, and are paid directly into their bank accounts within a week (c. 50 percent);
- From aggregators, of whom there are 27 at present (45 percent)

Despite the fact that aggregators have to be vetted and registered by [REDACTED], they are not given formal contracts. The rice miller provides extension support to the aggregators to ensure production quality, but they do not pre-finance the inputs, which is a commitment made by the aggregators. The risk to aggregators was realised this season when [REDACTED] found itself sitting on last year's stock and was not in a position to buy further supplies. The company have struggled to create market demand for their rice brand, [REDACTED], finding it harder than expected to compete with popular imported brands; they only sold 40 percent of what they bought in 2018. This has presented challenges for local aggregators such as [REDACTED], [REDACTED] and [REDACTED] who expected to sell their out-grower rice to [REDACTED] and all of whom are having to find markets elsewhere.

[REDACTED]'s informal arrangement works for the buyer but leaves the aggregator – and its out-growers – to bear the risk if there is no alternative market. Rice, unlike maize, requires processing before it can become edible, and so is not as readily saleable on the open market. There is clearly not a trusting relationship between [REDACTED] and its suppliers. The company reports that it did test out setting up purchase orders with aggregators last year so that they could use them to access loans. However, it was disappointed when the aggregators were found to be using the money for other purposes and the company is wary of doing this again.

Sorghum

Both white and brown sorghum are grown and consumed in Northern Ghana, but only brown can be used for brewing and [REDACTED] remains the largest offtaker for this variety. [REDACTED] has been successful in working through programmes and partners to increase the volumes produced in Northern Ghana to the extent that there is reported to be an oversupply at present. Two of the MADE partners interviewed rely on [REDACTED] to buy their sorghum, [REDACTED] and [REDACTED], and further downstream, [REDACTED] also have 800 sorghum SHF suppliers and are concerned

about [REDACTED]'s monopoly. The company does not have a contract directly with the brewer but sells to [REDACTED].

[REDACTED] originally used [REDACTED] to access local supply of sorghum but moved to commercialise this arrangement. [REDACTED] was set up as a result of this push for commercialisation, building on a model farm and 250 out-growers. The company has a longstanding contract with [REDACTED] based on minimum volumes and this has worked well for them, despite [REDACTED]'s stringent quality controls. The company recognises the risk of dependency on a single buyer. Their ~3,000 SHF suppliers are currently heavily dependent on sorghum at 70 percent of their production, and [REDACTED] is encouraging greater diversification into maize, soya and groundnuts.

[REDACTED] has had a less positive experience with [REDACTED]. The company signed a three-year contract with [REDACTED] for the supply of sorghum, negotiating each year a volume to supply. Last year the volume was 6MT, but [REDACTED] only needed 4.4MT and so [REDACTED] were not able to fulfil the complete forecast supply. This year [REDACTED] will not confirm a volume and supply has dropped even lower. [REDACTED] attributes these issues to oversupply in the market and finds itself stuck with full warehouses and is unable to purchase more sorghum from farmers.

DEMAND SIDE OPPORTUNITIES

GCX

The Ghana Commodity Exchange (GCX) is a relatively new development in Ghana, having only been established in 2018. It was created by the government to help link SHFs to agricultural and financial markets in Ghana. GCX initially traded in white and yellow maize and soya, and in November 2019⁴, sorghum and sesame were added on the exchange. Also in November 2019, GCX held a market council with rice value chain experts to start the process of adding paddy and milled rice to the platform.

Eight MADE partner firms have become members of the GCX and have traded maize on the platform. Many more are considering it as an option for expanding their options and using warehouse receipts to optimise sales prices. The minimum trading requirement is 1MT on the exchange and only grades one and two quality maize are accepted. As it is so new, the GCX will need to do more work to convince farmers and aggregators of its value. Three of MADE's aggregators interviewed had rented their warehouses to GCX, increasing their visibility, and had seen them do very good business. For example, [REDACTED] in the Upper East at Sandema, reported that the warehouse rented to GCX had been very well received in the area and had been filled four times in 2019, providing a much-needed market for local aggregators.

While the GCX is a positive development for Ghanaian agriculture, the beneficiaries of commodity exchanges and associated warehouse receipts are primarily the aggregators and commercial farmers that have the volumes to make the transaction costs worthwhile. These benefits may indirectly reach the smallholders that supply aggregators, e.g. through increased demand, but where the exchange will make the most tangible impact is in facilitating trade of premium quality crops. The small-scale commodity farmers targeted by MADE may need further support before they are able to differentiate their production quality to meet the higher grades on the GCX.

Southern markets

The demand side risks expressed above could be mitigated through linkages to new markets. [REDACTED], for instance, is exploring other opportunities with other brewers in Ghana, such as Heineken, who are testing sorghum as an alternative to traditional barley and would provide a valuable alternative market. [REDACTED] reported that they were able to sell the rice that [REDACTED] was unable to buy to Nigerian traders as well as to some millers from the South with whom they plan to develop further relationships. Building trading relationships between NSEZ and the more affluent

⁴ https://gcx.com.gh/news/gcx_top_news/sorghum-sesame-contracts-listed-on-the-ghana-commodity-exchange.html

South of the country, particularly with wholesalers and larger processors, will provide options for growth and diversification for Northern aggregators.

SMALLHOLDER SAFEGUARDING

Reports from KIs for this study paint a picture of smallholder farmers who are seeing their productivity improve at unprecedented rates and of more farmers queuing up to join the contract farming schemes. Without the benefit of being able to hear from smallholders directly, it can be surmised that the impact of MADE's interventions is making a step change to their farming businesses through the advanced model support from MADE partners and the forward contracts for offtake to guarantee markets. The measure of success used by aggregators is straightforward, i.e. the ability of farmers to pay back the inputs and services received with their recoveries (bags of crops).

As the MADE partner contract farming models become embedded, and the steep increases in yields taper off, the next stage for farmers to develop as microbusinesses will be to understand and manage their costs and their revenues more tightly. Currently all parties seem content with 'rounded up' costs – e.g. a bundle of inputs equating to one bag of a crop. This assessment did not delve into exact input and service costs, nor the prices agreed for commodities. However, for farmers to ensure that they are getting the inputs and services in the quantities and qualities that they require, support to improve their farming practices (as part of their 'seven rights') as well as fair prices, they need to have access to market information and the ability to negotiate with aggregators and input retailers.

The seven SHF rights developed by Ghana MADE

In order to achieve widespread growth in the agricultural sector in Northern Ghana, SHFs need the right quantity and right quality of inputs and services at the right time, at the right price, applied at the right time and in the right way.

In commercial arrangements, the smaller and less informed player stands at a disadvantage. However, in contract farming, aggregators have significant 'skin in the game' by virtue of the level of credit they extend to their out-growers and certainly no evidence was found, speaking to FEAs, to suggest aggregators were abusing their power over farmers.

The terms and conditions of contracts between aggregators and out-grower groups will need to develop as these arrangements mature, e.g. to include quality requirements as markets become more sophisticated. Further support and advice from business and development advisers will help to weather any future challenges as these contracts become more formal as both aggregators and out-growers scale up their operations.

The following considerations may help prevent farmers from opening themselves up to the potential risks of contract farming as well as ensuring that they receive a fair deal and maximising the opportunity that it brings:

- Ensure as much as possible that farming livelihoods are not entirely dependent on one crop or on one market. Even if an aggregator requires maize as a principle commodity, they may also buy other crops, and if not, a farmer may choose to keep some of his or her land for other purposes;
- Actively seek information about costs of inputs and services and crop prices. Tools such as Esoko can be of value in this regard;
- Most out-growers are contracted in groups and managed through some sort of governance arrangement or through a lead farmer. These group leaders need business skills and knowledge to represent the interests of the out-growers in the scheme and negotiate input and service costs and crop prices with representatives of aggregators;
- Aggregators can help reduce risks of crop failure, for example by testing seed germination before distributing to farmers;
- Crop losses can be insured to protect farmers;
- Farmers can leverage their membership of an out-grower scheme by using contracts and evidence from aggregators of performance as KYC to access financial services.

SECTION 6. GROWTH

The following requirements were included in the terms of reference for this report:

- Estimate the scale of revenue growth generated from the adoption of the B2B commercial partnership arrangements and how those revenues are realized and over what time frame;
- Estimate the scale of increased income generation to out-grower farmers of B2B and B2F commercial partnership arrangements.

In order to be able to provide estimates of these values with any degree of confidence, a great deal more research would be needed than has been feasible through this short study. The consultants have aggregated information gleaned from the KIIs as well as researching previous MADE reports and partner snapshots, but even key quantitative information such as business turnover is inconsistently reported. The following two sections discuss the business and SHF growth report and draw very broad conclusions about the scale of growth that can be attributed to the commercial partnerships intervention.

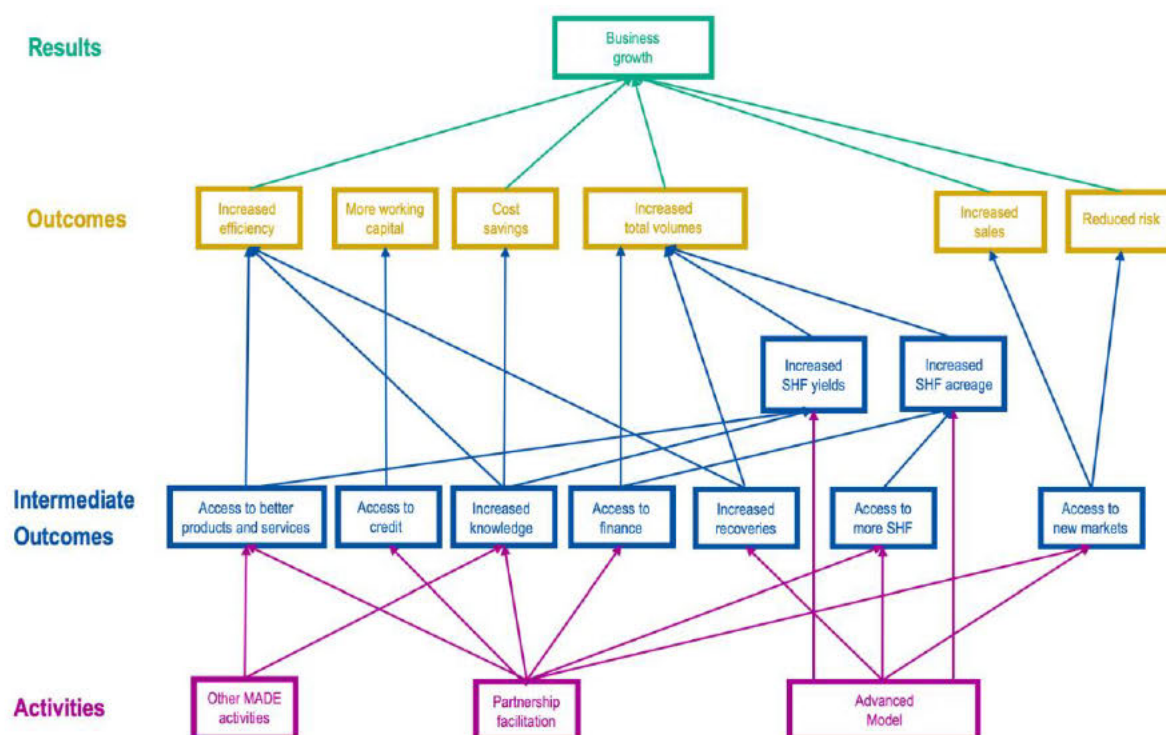
REVENUE GROWTH GENERATED FROM THE ADOPTION OF THE B2B COMMERCIAL PARTNERSHIP ARRANGEMENTS

The factors most commonly quoted by the business owners and managers interviewed as leading to business growth were the adoption of the FEA/BDA concept, including MADE's training and operational subsidies, and commercial partnerships. The measures of success used by aggregators were increases in SHF yields, increase in SHF acreage and improved recoveries, whereas input retailers looked at increased sales. Needless to say, these figures are focussed on turnover rather than profit as the primary metric, and in an ideal situation there would also be a focus on the latter.

Theory of Change

In order to analyse the avenues by which business growth may be facilitated by MADE, the following theory of change has been developed:

Figure 2: Theory of change for MADE partner business growth



This theory of change illustrates the multiple factors which may contribute to business growth arising from MADE's interventions. Of the five outputs resulting from new or improved partnerships as illustrated above, the most obvious routes to business growth are via access to new markets, new sources of supply (SHF groups) and access to finance for working capital and investments. The two other outputs were less commonly mentioned by interviewees but can be deduced from the positive outcomes of partnerships, i.e. sharing of knowledge (and resources) and access to better quality products and services. For example, [REDACTED] sends his FEAs to help train [REDACTED]'s and enables them all to share ideas.

It is impossible to put a value on partnerships, but it's important to have them as you never know when you might need linkages.

[REDACTED], Managing Director, [REDACTED]

There will also be exogenous and endogenous factors affecting agribusinesses which are outside of MADE's control, e.g. the skills and knowledge of managers and staff, the impact of the business enabling environment and interventions of other development programmes. The most notable of these in the period in question (2017-19) is the PFJ project.

MOFA launched the first module of PFJ in April 2017 with a focus on food crops such as maize, rice and soya and was aiming to reach nearly 1 million smallholders in 2019. The approaches adopted for this project are to provide a 50 percent⁵ subsidy on fertiliser and seeds to low income SHFs, as well as provision of complementary services such as extension and marketing of outputs. The long-term value of such subsidy programmes is questionable given their inherent lack of sustainability, the impact on the incentives of the private sector and the potential to drive corrupt practices to win

⁵ 50 percent is the figure quoted on the MOFA website, although various other figures were mentioned by interviewees

lucrative distribution contracts. In addition, this type of subsidy has been in and out of favour with the Ghanaian government and may well be removed again in future, pulling the rug from under the feet of small farmers who have become accustomed to the lower cost of production.

The commercial MADE partners benefitting most directly from the PFJ project are the aggregators, as the cost of providing inputs on credit will be significantly reduced and enable the same investment to serve more farmers (or provide more inputs to existing out-growers). The impact of PFJ on business growth was never raised as a topic in interviews, but it was mentioned in passing as part of the discussion about managing input supply. The consultants understand that while the programme inevitably has had some hiccups in implementation, it is well underway in the regions visited during the assignment, and it should be included as a contributory factor in the increased volumes being achieved by SHF in the MADE portfolio, and therefore to the growth of associated businesses.

Business diversity

MADE partners and their responses in KIs vary across a number of dimensions relevant to this analysis:

- **Business type:** The core business of MADE's partners ranged from aggregation, input retail and a combination of the two. It should also be noted that some aggregators specialised in seed multiplication which is markedly different from cereal crop production.
- **Crop types:** Nearly all businesses work with a number of crops, from cereals to baobab, shea and horticulture, and the cost of production, ready market and overall profitability of each crop vary widely.
- **Role of MADE in partnership formation:** In some cases, MADE facilitated entirely new partnerships by introducing businesses that had never worked together before and in other cases existing relationships were strengthened.
- **Financial literacy:** Few companies provided detailed financial information at the interviews, which is reasonable since one would not expect them to have business data readily to hand. For some smaller businesses in particular, such information would be too difficult for them to work out altogether – e.g. the owner of [REDACTED] could not calculate her turnover as her various revenue streams are heavily interrelated.
- **Period in question:** The exact period of growth, when stated, varied between respondents. Some referred to the whole period during which MADE had provided support, which in many cases was before the partnership intervention commenced, and others talked about the last two years.

Given this diversity of factors, and challenges of attribution, it is not possible to calculate an overall statistic for business growth as a result of MADE's partnership intervention. The detailed monitoring and evaluation data being collected by the programme will provide much more rigorous estimates than this qualitative study can provide. However, some indicative figures are given below.

Growth estimates

Business growth for MADE's aggregators has been driven primarily through increased volumes. For input retailers, new partnerships have opened up valuable new routes to market as well as the opportunity to diversify into aggregation. The following metrics were used to communicate business growth:

- **Total perceived business growth:** An increase in business of 60 percent was cited by both [REDACTED] and [REDACTED]. Input retailer [REDACTED] quoted a very exact figure of 8 percent growth due to commercial partnerships, and it can be assumed that this is the direct sales growth achieved through contracts with new aggregators.
- **Number of out-growers:** Another way of calculating growth relates to the number out-growers that companies are able to work with. [REDACTED] and [REDACTED] both stated that through their partnerships and the Advanced Model that they had increased out-growers from 170 to 2600 and 250 to 3000 farmers respectively (a 12+ fold increase).

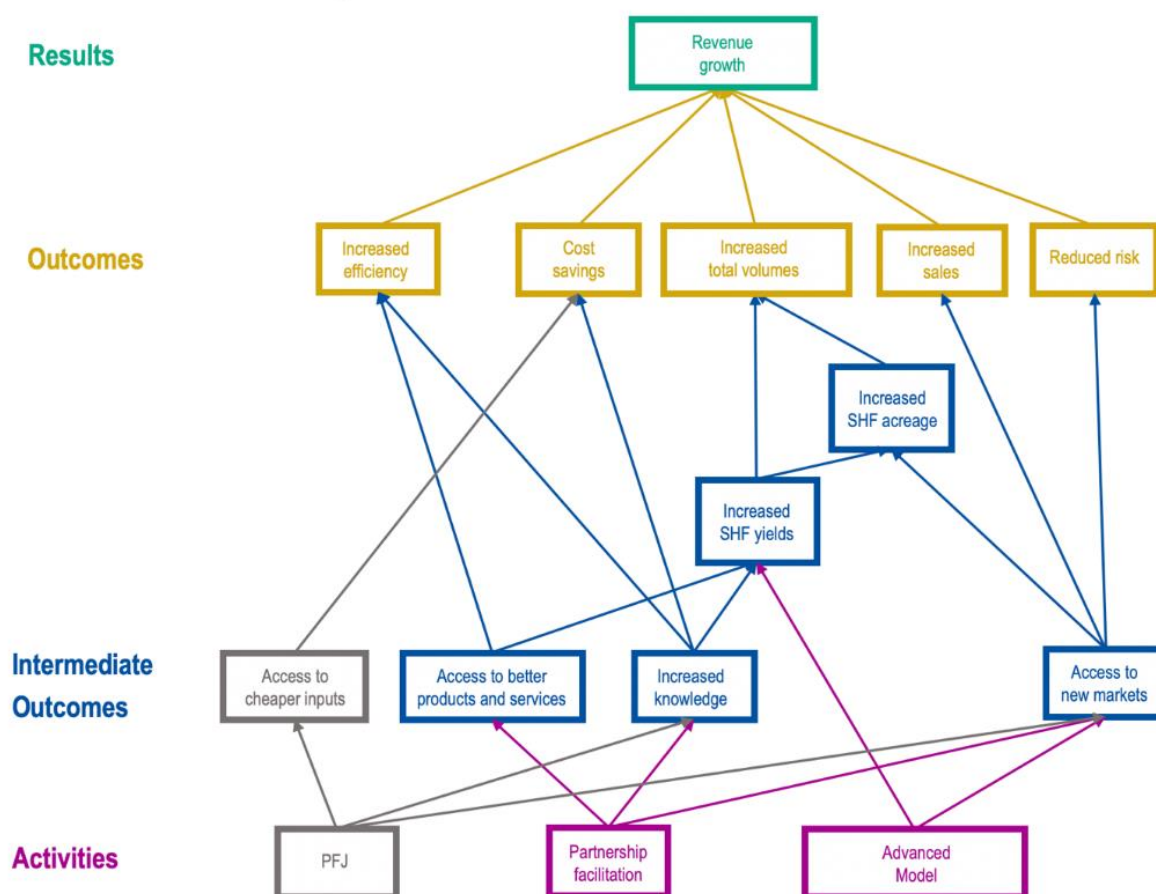
- **Increased volumes:** Other companies reported increases in volumes of crops aggregated. [REDACTED] reported an increase in commodity aggregated (maize, rice and soya) from 1,788 MT in 2017 to 5,253MT in 2018.

Whilst none of these can be fully accurate or be directly attributable to new MADE commercial partnerships, the general feeling amongst agribusinesses interviewed was that they had benefitted their businesses substantially. It is interesting to note that one MADE partner, [REDACTED], felt confident enough to make some specific attributions when interviewed for the FEA Assessment, quoting that introducing FEAs had generated 65 percent of his business growth, and the facilitation of partnership arrangements the other 35 percent.

INCOME GENERATION TO OUT-GROWER SHF

Theory of change

Figure 3: Theory of change for MADE partner business growth



As discussed in the business revenue growth section above, the PFJ project is the single largest external factor affecting SHFs. The subsidy will encourage farmers to invest in certified seed rather than re-using poor local seeds, as well as using fertiliser, hence improving productivity. Since fertiliser and seeds are typically 23 percent of SHF production costs, the 50 percent PFJ subsidy of these costs will make a big difference to the profitability of small farmers.

The factors which have the biggest impact on the farming revenues of MADE's target SHFs will be:

- Productivity;
- Acreage;
- Total number of SHFs in out-grower schemes;
- Cost of production;
- Farmgate prices.

The programme has made great progress on the first three of these factors. From speaking to business owners and triangulating this information with MADE programme data, the following conclusions on the level of increase in farmer production levels has been deduced:

- **Maize:** For maize growers, agribusinesses reported increases in yields ranging from 60 percent to 140 percent over two years, which is hugely impressive. Many companies including Alokodongo reported a doubling of output for farmers. This means that on average per acre output had risen from around 7 x 150kg bags to 14 bags or 1.05MT to 2.1MT per acre. For an average plot size of 3 acres per farmer then the increase is around 3.15MT per farmers.
- **Rice:** The most commonly reported statistic on rice yields were that they had doubled in two years.
- **Other crops:** There is not enough data to make even rough estimates for other crops, but for sorghum, both [REDACTED] and Agriaccess saw increases in yields of 60 percent. MS Bonsu reported increases in soya yields of only 18 percent, whereas Allah is Able Agrochemicals reported yields doubling.

MADE has reported large rises in incomes for c. 66,351 SHFs in the 2018-19 season. These results will have been achieved through a combination of yield improvements and larger plot sizes leading to higher production volumes. MADE partners have also been able to increase the number of SHFs with whom they work, multiplying not only the depth but the reach of benefits. The total number of SHFs supplying MADE partners interviewed has clearly increased as a result of the support received, e.g. [REDACTED] have increased the number of SHF suppliers to 1,204 from 4,680 and attribute this to MADE. The average number of out-growers supplying the companies interviewed was ca. 2,450, with many wishing to double or triple these numbers. The scale of these increases and the ambition among partner firms are as impressive as the income and productivity increases.

It is also worth noting that when asked about finding new out-growers, most MADE aggregation partners reported that they had up to three times as many farmers 'applying' to become part of their scheme. This reflects the success of existing out-growers in that their fellow villagers can see their farms flourishing and want to have access to the same opportunity. The limitations on scheme expansion, and turning away new SHF suppliers, are invariably down to a lack of access to finance.

Overall, it is safe to say that all the farmers supported by the programme through aggregators are achieving significant increases yields and volumes of crops for sale. What could not be established in this brief study, however, are the full costs of SHF production and the prices achieved, and so real increases in incomes are impossible to assess. It should also be noted that increases in yields are likely also to mean an increase in the costs of inputs and services - not all of the additional income would be profit.

In terms of attributing increases of SHF productivity, acreage and total number of out-growers, the dominant factor reported by partners was the provision of quality inputs and extensive support from

FEAs and BDAs as introduced and supported by the MADE programme. However, partnership arrangements have also undoubtedly contributed to this growth in a number of ways:

- Enabling the provisions of more, and better, products and services to out-growers via the Advanced Model;
- Accessing finance and improving cashflows to enable greater investment in out-grower schemes;
- Greater access to markets to drive business expansion and hence demand for SHF crops;
- Reducing the risk of business failure by diversifying markets and supply chains.

SECTION 7. RECOMMENDATIONS

MADE has taken a number of dynamic agribusinesses and helped them to drive impressive levels of growth through a combination of better managed and resourced out-grower schemes and well-structured commercial partnerships. However, the programme's 2019 Annual Report notes that "these high-performing adopters remain a small proportion of the total market actors operating in northern Ghana". The following recommendations are centred on the opportunity that can now be seen to encourage expansion of the contract farming models developed, both through current partners but also with other market players, and to maximise the opportunity for Northern Ghana's smallholder farmers as members of these schemes.

IMMEDIATE PRIORITIES

These recommendations can feasibly be delivered in a shorter timeframe with lighter touch intervention but still de-risk the sustainability of MADE's work to date and enhance opportunities for benefits to be scaled.

Facilitate expansion of value chain partnerships

In systemic change terms, market actors have adopted and, in some cases, adapted the use of partnerships introduced by MADE to strengthen and improve supply chains. The model now needs to be expanded, both by these firms themselves and also by replication by others. The partnership intervention builds on the success of the FEA / BDA concept and these should both be communicated together as extensively as possible among key stakeholders such as government, other development partners and programmes and the agricultural community, using the results reported by partner firms to incentivise others to replicate MADE's strategies.

Build market linkages

The rapid expansion of many of MADE's partner firms and the level of ambition to continue growing means that attention must now be given to markets. As discussed in this report, there are some commodities where aggregators and their out-growers are at risk from their reliance on single buyers. More work needs to be done to build relationships with new end markets, for example with millers, processors and wholesalers from the South of the country as well as making use of GCX. There are also opportunities to forge further partnerships with large input companies who are actively growing their networks to reach farmers in the Northern regions. These players can bring critical working capital in the form of credit for input supplies which can help unlock growth in aggregators and input retailers as well as bringing innovations that benefit farmers such as soil testing and tailored fertiliser.

Facilitate better access to financial services

Better market linkages and partnerships can help agribusinesses to improve their cashflow, but access to loans and investment are the biggest hurdle to significant growth. Some work has been done in this area but new partners and mechanisms need to be found to enable MADE's partners and other agribusinesses to take their businesses to the next level by finding funds to invest in more commercial and efficient farm machinery, introducing value addition through processing and, most importantly, providing a secure and stable market for increasing numbers of smallholder farmers.

Another area needing attention is in the further promotion of agricultural insurance, particularly where it can safeguard farmers against falling into debt when they have crop losses. There is already some uptake of insurance among MADE's partners, but products are relatively new to the market and are still evolving to meet needs. Agribusinesses are therefore struggling to negotiate appropriate cover and premiums for themselves and their out-growers, although some see the benefits.

Foster mechanisation services

Another major hurdle to the growth reported by MADE's aggregators is that they are unable to find enough ploughing or other mechanical services at busy times of year and / or they are unable to afford tractors or combine harvesters of their own. Without this equipment at the right time, production can be badly affected. This service gap, some of which is due to a lack of finance but also to the apparent failure to date of an entrepreneurial response to the opportunity, needs to be addressed not just for the benefit of MADE's partners but for the NSEZ agricultural sector as a whole.

LONGER TERM INTERVENTIONS

The following recommendations will require more substantial, longer term interventions to deliver but alongside further expansion of MADE's other successful approaches would further safeguard smallholders in contracting farming arrangements and capitalise on the promising opportunities for women farmers.

Develop smallholder business skills and access to market information

The information asymmetry between small farmers and aggregators means that the former may be at risk of exploitation if they do not know enough about market prices or input costs to negotiate a fair deal. The leaders of SHF groups will need to develop stronger skills to negotiate contract terms and conditions with aggregators and input retailers and become more commercially aware to protect their members. This farmer-level type of intervention may not be a good fit for a private sector programme such as MADE, but there may be opportunities to work with other donor or local government programmes that can provide this type of support. In terms of access to market information, there are channels which can be promoted, such as GCX and platforms such as Esoko which can push specific information via SMS to individual subscribers.

Incorporation of an explicit gender strategy

The Gender Assessment made a number of recommendations for longer term programmes, including using gender disaggregated data to monitor impact, putting a more overt gender strategy in place and increasing co-ordination with other stakeholders. These recommendations are supported by the findings in this assessment and there is a strong opportunity to build on the positive experiences of MADE partners to encourage other agribusinesses to increase the inclusion and empowerment of female farmers.

Promote dry season production

A number of options for dry season production, from vegetables to shea nuts, are possible and help to increase agricultural revenues in the lean part of the year. These crops typically require some investment, e.g. irrigation for vegetables, but if credit arrangements can be found then these options can generate valuable income for smallholders at times when they might otherwise struggle.

ANNEX 1. MEETING LIST

The team met with the following organisations during the assessment:

Table 2: Meeting List

DATE	COMPANY	NAME OF INTERVIEWEE
03/12/19	██████	██████, Market Development Manager
03/12/19	██████████	██████, Business Owner
03/12/19	██████████	██████, General Manager
03/12/19	██████████	██████████, Managing Director
04/12/19	██████	██████, CEO
04/12/19	████	██████, Sales Agronomist
04/12/19	██████	██████████, Project Coordinator
04/12/19	██████████	██████████, business owner
05/12/19	██████████	██████
05/12/19	██████████	██████, ack, CEO ██████, Manager
05/12/19	██████	██████, Head of Paddy Sourcing
05/12/19	██████████	██████, Executive Director
07/12/19	██████████	██████, General Manager
07/12/19	██████	██████████, Business Owner
09/12/19	██████████	██████, Managing Director
09/12/19	██████████	██████, Business Owner
09/12/19	██████████	██████████
09/12/19	██████	██████████, Business Owner
09/12/19	██████████	██████████, Business Owner
09/12/19	██████████	██████, Chief
10/12/19	██████████	██████, Business Owner
10/12/19	██████████	██████, Business Owner
10/12/19	██████████	██████, CEO
10/12/19	██████ (Telephone Interview)	██████, Business Development Officer
11/12/19	██████████	██████, Deputy Managing Director
11/12/19	██████████	██████, Managing Director
12/12/19	██████████	██████████, General Manager
12/12/19	██████████	██████, Business Owner
12/12/19	██████████	██████, Deputy General Manager
12/12/19	██████	██████, Business Owner
10/01/20	████	██████████, external consultant
13/01/20	████	██████, Business Development Manager

ANNEX 2. INTERVIEW GUIDING QUESTIONS

The following questions served as a checklist for the consultants to use during interviews with agribusinesses.

Background and MADE support

- When was your business founded?
- What are your main commercial objectives?
- What commodities do you deal in?
- Which geographical area do you work in?
- Why did you engage with the MADE programme?
- What are the key elements of the agreement with MADE?
- What support has MADE provided you? Has this been useful?
- What are the activities / investments have you made as a result of MADE involvement?
- What staff and assets does your business have? (e.g. warehouses, tractors, FEAs)

B2B partnerships

- What commercial partnerships do you have? Which of these were introduced or improved by MADE?
- How did you select them?
- Do you have formal contracts with these partners?
- How and when do they receive inputs/money?
- How do you manage the partnership?
- How do you monitor the performance of these commercial partners?
- What do you do differently as a result of working with MADE?
- Has this worked well?
- Will you continue it after the MADE programme ends?
- How do you decide when to provide a service directly or when to provide it through a partner?
- Who do you sell to?
- (If an input dealer) What are your channels to market and which are the most important?
- Do you know what are your end markets?
- Have these changed in the last few years?
- Have they grown or changed?
- Who is your competition?
- What threat do they pose?

B2F relationships

- How do you work with farmers?
- Do you have formal or informal arrangements?
- How do you choose your farmers?
- How many farmers do you work with?
- Do your farmers work in groups?
- Which crops do they farm?
- What services do you provide?
- Has there been an increase in the outputs and yields from your farmers?
- Have your farmers accessed more land since you started working with them?
- What risks and opportunities do you find with the Advanced Model?
- Have you organised PFJ subsidised inputs for your farmers? How was that managed (e.g. registration of farmers)

Other factors affecting the business

- Do you plan to continue using the FEA / BDA concept – will it be sustained without MADE support and if so how? What are your views on the concept? What are your greatest business challenges?

- From where have you accessed / do you plan to access finance to grow your business?

Revenue and growth potential

- What was your revenue / volume of trade prior to engaging with the MADE commercial partnerships?
- Has that changed?
- For what reasons?
- What growth do you predict for the next 1-3 years?
- Do you have any particular suggestions or recommendations for MADE?

ANNEX 3. AGRIBUSINESS SNAPSHOTS

The following section of the report (see https://ghana-made.org/rc/resource_type/partner-snapshot/) outlines an overview of each business, the commercial B2B partnerships it has developed through MADE and independently, the nature of its relationships with SHFs, safeguarding considerations for these SHFs, business constraints and opportunities, growth potential and any additional insights.