

DRAFT ANNUAL REPORT – YEAR FOUR

Market Development (MADE) for Northern Ghana Programme

NATHAN



SUBMITTED TO
DFID Ghana

SUBMITTED BY
Nathan Associates London Ltd
www.nathaninc.com

(Under DAI Wealth Creation Framework)

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Table of contents

Introduction	2
Action on Previous Recommendations	6
Section 1. Progress Achieved Towards Systemic Change	9
1.1 Building Partnerships	9
1.2 Smallholder Farmer Outreach.....	11
1.3 Adaption and Evolution of the Core Market Business Models.....	11
1.4 Improving Rules, Norms and Attitudes	20
1.5 Market Interventions Lessons Learned.....	21
Section 2. Overall Programme Achievements	22
2.1 Impact and Outcome Levels	25
2.2 Output Level.....	26
Section 3. Programme Systems and Procedures	31
Monitoring and Results Measurement Systems	31
Knowledge Management and Communications	33
Section 4. Value For Money (VfM).....	35
Section 5. Programme Management	38
Annex 1: Detailed List of Results	40
Annex 2: List of Informal Rules and Norms	41
Annex 3: Updated Risk Matrix	42

Introduction

This Annual Report considers the Market Development (MADE) for Northern Ghana's achievements during year 4 of implementation against the logframe and business plan. It details the progress being made by the programme to bring about changes in market development in 4 value chains in northern Ghana and considers what additional effort will be necessary during an agreed two-year extension phase to consolidate and extend the reforms and business models it has catalysed.

This report is set out as follows:

- **Section 1** details the impact MADE facilitated interventions has had on systemic change in the way small rural enterprises and smallholder farmers (SHFs) operate in market systems across MADE's core market sectors; strategies that have been adopted and the highlights of results achieved and a brief overview of intervention-level signs of change observed during the year
- **Section 2** presents the overall programme achievements from year 4 against the logframe; (April 2017 - February 2018) in detail. Key results in summary are:
 - **At the outcome level, the number of poor farmers and small-scale entrepreneurs who, respectively, experience higher sales and higher turnover as a result of new or improved models introduced through facilitation by MADE reached 48,164 of which (21,059) were women.** While this is a rise of 20,864 SHFs from Year 3 results, it fell short of the Year 4 target. However, when this result is unpacked, SHFs experienced an additional income increase of █████ (cumulatively). This is a strong indication MADE is on the right track to deepen its impact as set out in the extension.
 - **The number of poor farmers and small-scale entrepreneurs who, respectively, experienced higher yields as a result of new or improved models introduced through facilitation by MADE was 53,031 (23,030).** This has exceeded the Year 4 target and is a rise of 21,017 from Year 3.
 - **The number of instances of systemic change reached 17 compared to a target of 9.**
 - **At the output level, the number of market actors facilitated by MADE changing their business practices and or forming new partnerships in markets facilitated by MADE reached 68, compared to a target of 60** This is a rise of 20 from Year 3.
 - **The number of poor farmers and SSEs who use new or improved inputs as a result of MADE facilitation rose to 53,495 (23,388).** This fell about 5,000 short of the Year 4 target despite a rise of 23,409 on Year 3. However, this indicator only measures those who have actively used inputs on their own fields. It should be noted that through its Partners, 71,106 SHFs were exposed to the improved inputs or reached.
 - **At the support output level, the number of SHFs and small-scale producers accessing financial and business services, research information and cooperative networks through MADE support, reached 35,809 (16,175)** This exceeded the Year 4 target and was a rise of 14,794 from Year 3
 - **The number of new and improved services introduced and provided to SHFs and SSEs was 10.** This was a rise of 4 from Year 3. However, following an independent review of the programme before Year 4, it was recommended that MADE focus on deepening impact rather than pursuing a breadth of interventions. Hence the focus on bundling and deepening incomes, rather than pursuing new inputs and services.
- **Section 3** outlines changes to MADE's operational systems and procedures introduced following the 2016/17 Annual Review Recommendation to strengthen MADE's monitoring and results measurement (MRM) system. It sets out the series of reviews undertaken by the programme to assess its monitoring and verification methodology, to validate the Year 3 results and to recommend changes to verification procedures to strengthen the rigour of the results to

be collected in Year 4. The section includes a description of the aggregation protocol and the attribution strategy adopted by the MADE Team in verifying results and the development and consolidation of the partner database. It also outlines work undertaken on knowledge management and communications.

- **Section 4** outlines Value for Money (VfM) criteria incorporating MADE's revised framework following recommendation from the Annual Review.
- **Section 5** considers aspects of programme anagement, including a programme review, individual staff reviews and work undertaken to develop a 2-year, no-cost extension proposal to allow the programme to achieve its full potential.

The context for MADE's operations in Year 4

MADE is a market systems development programme operating in the challenging agricultural markets in the 5 regions of the Northern Savannah Ecological Zone (NSEZ) of Ghana. MADE acts as a "market facilitator", supporting key private sector actors while engaging with public sector institutions that set the rules in 4 agricultural value chains. It works to improve the provision of goods and services to smallholder farmers (SHFs) and build and improve the functioning of the markets in which they operate.

The business context in which MADE operates, has not changed significantly during the first 4 years of implementation. The in-depth market systems analysis, undertaken during the programme's inception phase that helped identify the target value chains and shape the adopted approach, revealed the "thinness of the markets" in Northern Ghana but underestimated the extent of that thinness. The limited level of business capacity, diversity of entrepreneurial activity, competitiveness, growth prospects and potential for upstream and downstream linkages within the agricultural markets has since been identified and their negative impacts have constrained the pace and depth of change delivered by MADE.

An external review¹ of the MADE programme undertaken in late 2016 explored how MADE could improve its delivery of results in a thin market, by considering the effect of deepening or broadening the interventions. The recommended approach was to pursue a "deepening and targeted" approach, identifying strong partners and engaging with them to develop a business case for support on a narrow range of interventions. This is a key rationale for the change of focus to first mile activities (the connection between the rural enterprises and the SHF) bulk procurement and bundling of products and services in Year 4.

The external review considered one of the key features of MADE's implementing approach; the use of sub-facilitators² to provide specialist services to MADE partners. MADE together with its partners jointly financed the contracting of the sub-facilitators, such as [REDACTED], to manage new products and services such as agricultural extension agents (AEAs) on behalf of MADE partners such as [REDACTED]. As well as providing specialist services, the sub-facilitators completed the annual results reports on behalf of partners

A key finding of the review was that the use of a sub-facilitator was not the best method to measure results. Out-sourcing the measurement of results did not incentivise partners to invest in or take ownership in understanding their results. This lack of ownership, led in certain cases, to the sub-facilitator making decisions and taking on responsibilities that the partner should have assumed³. A major shift in Year 4 was the cessation of sub-facilitators contract and to support MADE business

¹ [REDACTED], "Ghana – External Review of Market Development Programme in the North (MADE): Final Report November/December 2016", March 2017.

² NGOs or service providers contracted by MADE Partners to bring specialist expertise such as professional management of extension agents. However in the MoUs agreed, sub-facilitators would also agree to the principles introduced by MADE, effectively making them an extension of the MADE approach.

³ [REDACTED], "Ghana – External Review of Market Development Programme in the North (MADE): Final Report November/December 2016", March 2017, p.10

partners to take ownership in the delivery of first and last mile services such as managing their team of Farm Enterprise Advisors to deliver extension services to their SHF clients

Additionally, the review recommended that MADE should not only focus on influencing formal rule change but should also work on increasing positive changes to informal rules, such as product guides to support market improvements and to develop improved commercial relationships between partners and SHFs. New activities introduced in Year 4 such as farmer passbooks contributed to address this recommendation of the external review.

Critical to the success of building the missing capability and capacity of agricultural markets has been facilitating the growth in number and size of agribusinesses operating in the first mile and last mile space⁴ and the designing and piloting of a range of business models that increase market offers, sales and income for MADE's agribusiness partners and increased yields, productivity and sales for their SHF clients.

To build the capacity for the delivery of these products and services, MADE had to attract, assess and select enterprises willing and capable of making changes to their business models and operations. In the first year of implementation MADE was only able to identify 4 firms capable of adopting new business models and services. By Year 4 MADE entered into Memoranda of Understanding (MoUs) with 59 agribusiness partners, most of whom have proved to be effective "first adopters" of the new models and services and are key investors and operators in the improved market systems facilitated by the programme. The number of MADE partners selected in Year 4 was up 35% on the number of partners engaged in Year 3.

Year 4 saw the piloting of a number of new support service functions that could be taken up by its agribusiness partners as part of their market offer to SHFs. These included mechanisation services, such as tractor brokerage and agri-leasing, the pilot of irrigation systems and provision of agricultural advice by Farm Enterprise Advisors (FEAs) to the SHF clients of aggregators and Business Development Advisors (BDAs) to the SHF clients of input suppliers.⁵ These advisors were recruited and employed by the partner firms to strengthen their commercial relationship with their SHF clients and create demand for the new and improved goods and services. They also enabled MADE partners to have more reliable forecasts for sales of inputs and supply of agricultural crops through their regular monitoring of and supervision of farm activities.

Business advice and mentoring through the Business Growth Accelerator (BGA) pilot scheme continued in Year 4 to support MADE's aggregator partners with their growth and investment plans. A Business Learning Group (BLG) specifically for women processors and traders who might face crowding out due to MADE's market improvements was also introduced.

The Year 4 results, set out in Sections 1 and 2 below, demonstrate the effectiveness of the MADE models and the value of the market systems development approach in effecting change. In Year 4 MADE activities enabled an average increase of SHF productivity in all 4 markets of 137.7%, generated over ██████ additional net income for 53,031 poor farmers (23,030 women). 48,164 (21,059 women) SHFs and small-scale enterprises (SSEs) experienced positive change in annual turnover and sales as a direct result of MADE interventions. Women SHFs represented more than 43% of the total beneficiaries. In Year 4, MADE brought about business practice changes and facilitated market partnerships for over 53,400 small enterprises and farmers in the region. This represents an increase of 451% from the results in Year 1 of 9,700.

Despite this success, the progression of interventions to impacts predicted by the Theory of Change has not been fully achieved. The Theory of Change underestimated the amount of time it would take for MADE interventions to secure traction with market actors and subsequently have

⁴ In Year 4 MADE's focus for: **First mile** was on the delivery of products and services to SHFs, provided by enterprises; and focus for: **Last mile** was on the FEAs as the connection between partners and SHFs offering guidance and ensuring quality and meeting of buyer requirements for crops.

⁵ FEAs are contracted by partners to provide extension services and monitor SHFs; BDAs are contracted by partners to actively promote and market improved inputs to SHFs to create increased demand;

impact on SHFs. In MADE's case, the achievement of material market entry took 2 years longer than expected.

The significant time and resource investment required by MADE to achieve market traction in the thin markets of Northern Ghana has delayed MADE's systematic engagement with government, public institutions and other development partners. MADE has secured changes in the informal rules which dictate the operations of markets in the North, thereby facilitating rural enterprises and SHFs to have easier entry and operation in the markets. Work on formal rule changes such as influencing government policy has yet to begin. This will be a key focus of the work of the next 2 years particularly with the increased activity of the Government in the agricultural sector with its large programme Planting for Food and Jobs.

In December 2017, DFID approved a 2 year no-cost extension of the programme to consolidate and extend the reforms catalysed by MADE. The objective of the extension is to deepen and extend the traction in the market created by MADE, secure growth and commercial viability of the existing partner companies and broker deeper downstream commercial linkages with anchor firms supplying to and buying from the growing list of northern Ghana based agribusinesses.

Action on Previous Recommendations (Annual Review 2017)

Actions Taken on Recommendations from the 2017 DFID Annual Review			
Recommendation	Responsibility	Due Date	Update on Progress made
R1: MADE to strengthen the Monitoring and Results Measurement (MRM) system to include data collected on firm growth and Net Attributed Income Change (NAIC). There needs to be more buy-in and integration of the market development specialists and MRM, and a clear framework that harmonises all aspects of results measurement to be used to guide decision-making.	MADE	September 2017	<p>Following the Annual Review an assessment was undertaken to identify the most effective way to integrate the MRM into the programmatic interventions of the Market Development Team to ensure that programme management and decisions was guided by results measurement.</p> <p>This assessment included the development of a validation and verification methodology of self-reported results from partner. This methodology was piloted to validate and verify the Annual Report Year 3 results. The tested verification process has been carried out this year to verify the the results in this annual report. . The MADE team structure for the extension was revised to reflect the recommendation to integrate the MRM function in the ToR for the Market Development Managers (MDM). A new role of Monitoring and Learning (ML) Specialist will provide training, guidance and quality assurance to the MDM as they undertake their MRM functions. The MDM have started their new MRM functions undertaking the verification of partner results at the end of Year 4. The recruitment of the Monitoring and Learning Specialist is underway.</p> <p>Firm growth and NAIC have been captured in the new extension Vfm Strategy and Logframe respectively</p>
R2: MADE to revise the logframe in line with Year 4 Business Plan to ensure new direct interventions are captured, including a revision to gender impact.	MADE	September 2017	Completed. A revised logframe was included and approved in the two-year extension. However, by the time of approval in January 2018, all season activities had finished. Therefore, the Year 4 Annual Report is written against the previous logframe version (with the exception of indicator 4 which was removed as the external evaluator contract was terminated in Year 3)
R3: Build on the success of the Business Growth Accelerator (BGA) and refocus to bridge the profound gap in the business development/finance ecosystem, coaching and mentoring business owners and entrepreneurs on business growth strategies. This will allow BGA to develop a unique offer of services and to draw from the pool of 60 MADE prospective partners with varying capacity and quality in Year 4 to anchor the development of its commercial viability and sustainability.	MADE	May 2018	The performance of the BGA was assessed by an external evaluator in February 2018. The evaluator found in interviews with BGA recipient companies and other stakeholders that the concept of the BGA was valid and relevant to Northern Ghana. The evaluation found that there is a continuing need for MADE to be able to assist t business partners to access tailored finance and business support to enable them to grow. However, the evaluator assessed that the BGA intervention concept, which draws on the design of UK based business accelerator models was overly complex.

			As a result, MADE will be taking the lessons learnt from the BGA into the business planning for the MADE extension to adapt how it will assist its business partners to access business support and finance. The Business Plan for Year 5 will outline the design of the new concept and how it will be taken forward.
R4: MADE, with support from DFID where warranted, should look to a stronger engagement with Government stakeholders on what policy and development changes could be enacted to make markets function more fluidly in the North	MADE & DFID	May 2018	A primary objective of the 2-year extension is the development of a communications, engagement and influencing strategy to disseminate the results from MADE to influence Government and development partners to adopt a market systems development approach when devising policies and programmes in the agriculture sector in the North. To give this work the time and expertise required to have the impacts sought, the Team Leader will devote 60% of his time to this strategy. The strategy for this work will be part of the Business Planning process which will be finalised in Q2 2018.
R5: MADE needs to re-establish the higher-level programme oversight body – the Advisory Committee – to ensure there is better collaborative oversight of the programme from key partners	MADE	August 2017	Good progress has been made. The Advisory Committee met in October 2017 to discuss progress and the outline of the extension and met again in March 2018 ahead of the Year 5 Business Planning exercise. Another meeting is planned for June 2018 to coincide with the Year 4 Annual Review
R6: For the final year of the programme, MADE will focus on strengthening and consolidating its partnerships with the programmes partners and testing out pilots on mechanisation and irrigation investments. A key focus, as far as possible, will be developing processes to make the innovations durable and sustainable after the programme closes.	MADE	August 2017	The results of the first season of the tractor brokering intervention were analysed and a report prepared with recommendations. These lessons are being applied to the upcoming Year 5 season as part of the integrated package of services being offered to Partners. The irrigation pilot finished in February 2018. An internal assessment of the management and implementation of the pilot has been completed. The lessons learnt from that assessment will be used to take forward the next phase of MADE's approach to irrigation which will be part of the Year 5 Business Plan. The lessons on the management of the pilot will be used to strengthen MADE's management of partnerships which use an accountable grant.
R7: The programme would benefit from recording the key decisions and its reflections of lessons learned in the various sectors from the testing models and ideas. This will allow the programme to better capture its adaptive management approach and to capture the unanticipated challenges to programme implementation that motivate the programme to adapt plans.	MADE	September 2017	As part of the MDMs MRM roles, they will be recording lessons learnt and corresponding decisions taken to address those lessons. The MLD specialist will support the MDMs by providing a framework and developing the necessary tools to be used by the MDMs. The findings from the use of these tools will be reviewed at Quarterly Strategic Meetings where the MADE Senior Management team and the Market Development team will reflect on activities in the past quarter, results, risks and make decisions on how to adapt the programme on the basis of the assessment of results and risks.
R8: MADE has a substantial underspend, with the programme expected to close [REDACTED] under budget. DFID Ghana to decide on what to do with the remaining budget	DFID Ghana	October 2017	DFID has approved a 2-year extension to the MADE Programme. The programme will now end in February 2020 and a contract amendment has been signed by DFID and DAI/Nathan

R9: MADE to focus on supporting its existing partners and other market actors to mainstream and consolidate the business models and practices it has introduced to them. This will include the out grower and aggregation models and demand generation and sales increasing strategies, through the adoption of the bundling model and bulk procurement. MADE to include VfM indicators to measure the 'market' costs of the services separately and compare with the costs of the bundling model.	MADE	May 2018	The MD team is currently working with potential agribusiness partners for Year 5 to consolidate and build on the models designed and tested in years 1-4 of the programme. The Year 5 Business Plan will outline the models to be implemented in Year 5 which will include the integrated service model. The market costs of individual services and inputs has been included as a VfM indicator in the new VfM Framework for the extension
R10: MADE to explore how smallholder farmers allocate their factors of production when yields suddenly improve, and the extent to which the programme is benefitting poorer farmers.	MADE	July 2018	This will be an issue which the Market Development Team will research when undertaking their interaction with agribusiness partners at the time of selection in the second quarter 2018. The ML specialist will provide support.
R11: As with other outputs, better capture, analysis and presentation of data needs to be the focus of the M&E team with support from the Market Development Specialists leading on the respective value chains. At the output level, tracking the value of the services provided and understanding the demand and supply models is critical for an M4P programme to understanding where the opportunities and incentives are.	MADE	July 2018	To analyse the value of services, the MLD Specialist worked with the MD team to embed questions in the partner report templates to capture this data. The revised VfM Framework includes an indicator comparing the value of services provided by partners to the market rate. This is reported for the first time in the Year 4 Annual Report. The MD team will build on progress made when undertaking their interaction with agribusiness partners at the time of partner selection in the second quarter of 2018.
R12: MADE should identify any risks associated with their activities that can be addressed by rule changes and ensure these are included in their intervention plan.	MADE	May 2018	The strategy for the communications, engagement and influencing work developed during Y5 Q1 will include an assessment of the risks to the sustainability of the MADE Programme and how influencing rule changes can mitigate those risks. This strategy will be part of the Business Plan for Year 5.
R13: Following the cancellation of the evaluation, this output should now be removed from the logical framework.	MADE	September 2017	Completed. The output was removed during the logical framework revision in December 2017
R14: Substantially revise and condense the VfM framework into a useful management tool rather than just for the collection information. For example, MADE currently tracks a total of 27 VfM indicators which places a significant burden on the M&E and finance teams.	MADE & DFID	April 2018	A revised VfM Framework has been submitted for consideration and is reported against in this Annual Report
R15: MADE should update the VfM framework to include equity. Addressing equity is a cost driver and more often than not, reaching marginalised groups has cost implications. MADE should track the cost of its efforts on reaching the poor and women, which has been a key success in the programme.	MADE	April 2018	A revised VfM Framework has been submitted for consideration and is reported against in this Annual Report

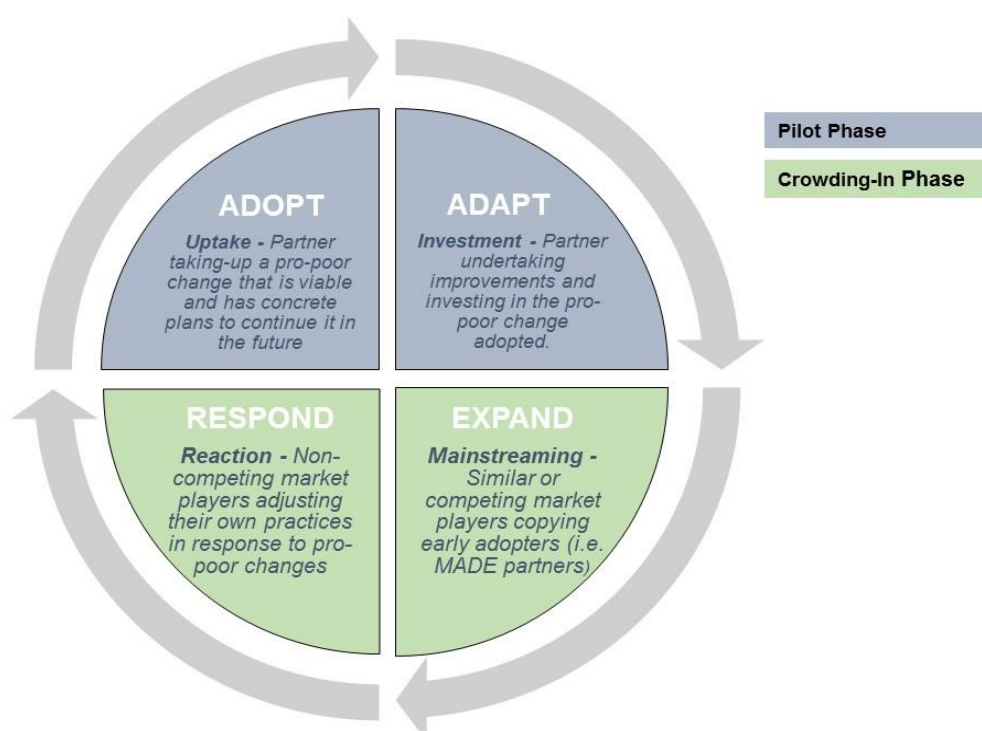
Red= off-track; Amber = off-track although work being done; Green = completed, or on-track and progressing

SECTION 1. PROGRESS ACHIEVED TOWARDS SYSTEMIC CHANGE

This section of the report assesses the overall progress achieved through MADE facilitated market interventions in the way small rural enterprises and smallholder farmers operate in market systems in 4 value chains (rice, groundnuts, vegetables and onions) in Northern Ghana. It also provides an assessment of the outcome-level signs of change observed during Year 4. These changes have been assessed against the Springfield Centre's *systemic change framework*, to measure the extent to which changes stimulated by MADE's interventions have taken root in the market and can therefore be considered systemic (i.e. changes in market roles or pro-poor products, services, or business model innovations are owned and implemented by entrepreneurs and farmers independent of project support).

The change process outlined in the systemic change framework is illustrated in the Figure 1.

Figure 1: Pathway to Systemic Change



1.1 BUILDING BUSINESS PARTNERSHIPS FOR YEAR 4

As a market systems development programme, MADE works with and through rural agro-enterprises to make changes to the operations of 4 value chains to benefit SHFs. Consequently, the selection of business partners is critical to the effectiveness of the programme in securing impact and meeting annual targets. During the first 3 years of operation, MADE has devised a rigorous partner selection process to identify the enterprises capable of co-investing in and adopting the MADE business models. This process is labour intensive and time consuming as it requires a commercial assessment of the operations of the business and a due diligence check into the methods of operations.

In Year 4 the selection of partners took place from the initial engagement workshop in April 2017 to the signing of MoUs by July 1 2017. This was a longer period than in Year 3 due to the increased number of enterprises that expressed interest in working with MADE at the beginning of Year 4. The increased number of interested businesses demonstrates the success of MADE in designing and implementing services for business that are in demand and are effective. It also shows that

knowledge of MADE and its value for business is spreading amongst the business community in Northern Ghana.

The selection process carried out had 3 stages:

- Outreach and partner engagement workshops
- Shortlisting of Prospective Partners
- Negotiating MoUs.

At the start of Year 4, the Market Development team conducted an extensive outreach and marketing campaign to extend knowledge of MADE and the services it offers to business in Northern Ghana. In April 2017 the Team held 4 partner engagement workshops which attracted 64 business participants which had a total client base of 79,829 SHFs (43% of which would be women). The workshops took place in the three northern regions (Northern, Upper West, Upper East) and for the first time in Techiman to engage with prospective business partners in the northern parts of the Brong Ahafo and Volta Regions.

Following the initial workshops MADE conducted a rigorous assessment of the prospective partners. It held individual sessions with each prospective business partner to collect data on their enterprises such as type of service provided, turnover and level of ambition to grow. An assessment was also carried out to determine their willingness and capability to adopt the MADE business models. Each of the businesses were scored using set partner selection criteria⁶ and those meeting a minimum standard were selected for the shortlist.

At the end of the selection process MADE shortlisted 59 prospective partners to undergo a due diligence process. The prospective partnerships for Year 4 for the 4 value chains were:

- Groundnuts – a total of 19 partners 6 of which were new ones
- Rice – a total of 21 partners, 9 of which were new ones
- Onion - a total of 10 onion partners
- Vegetables – a total of 9 partners

Amongst the 64 shortlisted partners were businesses from the new area of operation for MADE, the Brong Ahafo and Volta regions. Five of the shortlisted partners were located in Brong Ahafo 2 operated in the groundnut and 3 in the onion value chain. From the Volta region one shortlisted partner operated in the rice value chain.

MADE then entered into negotiation with each of the short-listed businesses to agree individual MoUs and draw up workplans and budgets which formed the basis of the contract between MADE and the partner. A fundamental principle of the MADE MoUs with partners is their commitment to co-invest in the MADE business models which will fuel growth of their business and the livelihoods of SHFs.

The willingness of 59 businesses in Northern Ghana to undergo a due diligence process revealing commercial sensitive information about their business and to co-invest in MADE business models demonstrates the trust that MADE has built with existing and new partners. It also shows that business see the value of the MADE models on their bottom line and are therefore incentivised to make co-investments. The level of trust is clearly shown in the value of partner co-investment in Year 4 which reached ████████.

⁶ Agreed Criteria included: SHF reach, asset base, resources available to invest in MADE promoted models (e.g. bundling), business planning acumen, appreciation of market orientation, openness to extermination and ambition

1.2 INCREASING PRODUCTS AND SERVICES TO SMALLHOLDER FARMERS

In Year 4, MADE worked with 59 partners, an additional 11 partners to Year 3. The increase in number of MADE partners contributed to the increase in the number of SHFs in Year 4 benefitting from MADE facilitated products and services delivered by MADE partners. A further factor in this increase is the scale up and supply of a wider range of product and services by MADE's partner to SHFs enabling them to increase their SHF client base and secure a competitive advantage.

By the end of Year 4, MADE's activities facilitated increases in productivity and generated additional net income for 71,106 poor farmers (28,196 women SHFs). Of this outreach, a cumulative total of SHFs and small-scale entrepreneurs (SSEs) accessing and using new or improved inputs and services through MADE's facilitation increased from 30,086 in Year 3 to 53,495 (44.1% women) by the end of Year 4. The full detail of these results can be found in Section 2.

A constraining factor in the growth of SHFs accessing the products and services offered by MADE partners is a lack of affordable finance for partners business expansion plans. Experience from Year 4 showed without access to finance in addition to the co-investment provided by MADE, MADE's agribusinesses partners are unlikely to be able to scale up their out-grower operations. MADE will during the extension explore innovative ways to secure finance for value chain transactions to allow agribusinesses in the north to significantly expand the reach of their products and services to SHFs.

1.3 ADAPATION AND EVOLUTION OF THE CORE MARKET BUSINESS MODELS

Entering the anticipated final year of the programme, and in compliance with the external review recommendation, MADE decided to concentrate on securing transformative change in key sectors rather than marginal gains for large numbers. Emphasis in Year 4 was given to consolidating and deepening programme outcomes, transforming seasonal results such as yield, turnover and sales increases, into more impactful outcomes, such as on-farm productivity and profitability improvements. To facilitate and support the focus on more impactful results, MADE concentrated its effort in Year 4 on consolidation of the adaption of the enterprise business models that deliver improved inputs and services to SHFs in the focus value chains, rice, groundnuts, onions and other vegetables. MADE also worked at reinforcing and broadening market connections that enable partner investment in market support functions such as mechanisation and irrigation.

The deepening of impact outcomes was to be achieved principally by the partner agribusinesses **adapting** the effective input dealership and aggregator models to deliver a broader and more integrated complement of input supply and service support to SHFs.

1.3.1 AGRO-INPUT DEALERSHIP SUPPORT – ONIONS AND VEGETABLES

The focus of activities in the onion and vegetables market sectors was:

- i. Support Agro-Input Dealers to adopt demand generation and sales outreach strategies
- ii. Introduction of Business Development Advisors
- iii. Introduction of the Farmer Input Purchase Use and Books
- iv. Introduction of credit sales arrangements

The Agro-Input Dealer Support

A total of 19 partner agro-input dealers signed up to the MADE programme in the 2017-18 agricultural season. This is the same number of agro- input dealers as last year. However, seven of the partners were new meeting the higher partner selection criteria introduced by MADE to

ensure that the programme had deeper impacts. Seven⁸ of the original partners did not participate in Year 4 activities after failing to secure the minimum partner selection score due to their limited scale of operations and growth potential.

In Year 4, Agro-Input Dealer Led model, introduced in Year 3, was strengthened and enhanced. MADE continued to promote the adoption and adaptation by its partners of the demand generation⁹ and sales outreach strategies¹⁰ of the model to increase client knowledge and take up of their services. Partners adopted a range of techniques to generate demand for their products and reach clients with product information. Twelve input dealers produced over 28,000 technical leaflets and 12,000 briefing notes on issues such as pest and disease control. Others organised agro-input days visiting clients' farms to offer demonstrations of products including their storage and handling. 10 partners have introduced the use of a logo on their product packs to build brand awareness and loyalty. Lead Farmers have been recruited as sales agents and assigned to sales points in their local community to extend the sales and distribution reach of input dealers.

Business Development Advisors

An innovation in the model rolled out this year was the employment of Business Development Advisers by the input dealers to build and manage relationships with their clients. BDAs visit client regularly to market the agro-input dealers' improved input's and services and generate demand and sales.

All 19 of the MADE partners successfully adopted and rolled out the BDA model, together with other innovative approaches¹¹, to increase their market share and profitability. The partners recruited and employed a total of 116 BDAs (12 women). As well as selling and delivering inputs, the BDA provides on farm demonstrations and advise on the correct amount and usage of the inputs. MADE co-investment shared the cost of salary and expenses of the BDAs with its partners.

Table 1: Key results achieved by the BDA model

Results achieved by the BDA model
Figures in brackets indicate women
<ul style="list-style-type: none"> 21,374 (7,154) customers have been visited by BDAs with 15,962 (5,684) or 75% having been visited by a company representative for the first time. 18,935 (6,053) (89% of the customers reached) experienced yield increases 18,300 (5,750) experienced increased income levels. 17,705 (5,684) of the total outreach are coping with the impact of climate change. Average stock and sales revenue in the 2017-18 business season increased respectively by 23% and 28%.

Farm Input Purchase and Use Books

Some of the "first mover" input dealers have adopted the use of the Farm Input Purchase and Use Books (FIPIB). A total of 4,500 FIPUB were produced and distributed to 19 inputs dealers. The Passbooks are to be used to track sales data and facilitate order planning at sales points. Customers were segmented from the FIPUB to determine the bundle of services to offer. The bundle of services includes critical inputs and services on cash/credit basis, adoption of BDAs, FIPUB and brokerage services such as mechanisation.

⁸

⁹ of leaflets/brochures, recruitment and deployment of technical sales people, use of radio and other electronic media, establishment of model farms, etc.

¹⁰ Sales outreach strategy (i.e. stockist unit, sales agent or itinerant sales) appropriate for each business.

¹¹ These include bulk procurement and deliveries, Farmer Input Purchase and Use Book etc

On the basis of information gathered through the FIPUB, twelve agro-input dealers structured their full bundle services delivery model which they are offering to clients. For further information on the bundle see Section 4 VfM Efficiency indicators.

Table2: Customer demand for the bundles offered by input dealers

No. of Basic package customers	No. of Medium package customers	No. of Full package customers	Total Customers
561 (180)	3,876 (1,331)	11,549 (3,300)	15,986 (4,811)

Credit Sales Arrangements and Bulk Ordering

MADE encouraged the 19 agro-input distributors to offer credit sales arrangements to their retailers to enable them to procure goods when required during the growing season for onward supply to SHFs/customers within their catchment. This ensured that SHFs were able to access the right inputs required at the right time for their crop cultivation. A key constraint to farm productivity is farmers inability to apply inputs when needed. [REDACTED] and [REDACTED] both introduced the provision of sales on credit in the 2017/2018 business season

Bulk ordering from major suppliers is also working well with the seed companies such as [REDACTED] and [REDACTED]. Both provision of sales credit and bulk buying will be rolled out in the 2018/2019 season to enable agribusinesses to provide full bundled service package to SHFs/customers.

Case Study – Major Seed Suppliers ([REDACTED])

[REDACTED] [REDACTED], importers and distributors of various hybrid and open pollinated vegetable seeds have further deepened their commercial relationship with agro-input dealerships in the northern region. Both companies are now offering MADE programme partners lengthened credit terms of between 2-3 weeks plus discounts of 5% on bulk purchases. This package being offered to MADE supported wholesalers and distributors has encouraged other agro-dealerships in the region to invest more on seed stock and sales to qualify for supplier credit and discount arrangements.

MADE formal partnership agreement with these two major seed importers ended in 2016. However, MADE and the companies continue to collaborate to develop the markets for their products, opened up with MADE's help, to satisfy the growing demand for vegetable seed in NSEZ. Since the MADE programme was introduced, the increased competition amongst agro-input supply companies has led to them adopting marketing and sales strategies to reach their SHF client sales targets. As a result, for the first time SHFs in the region have a diversified and competitive service provision from a number of seed suppliers. They now have a larger choice of products and suppliers enabling them to select the services most favourable to them.

The results achieved in the onion and vegetable value chains indicate good progress to systematic change.

Table 3: Summary of Systemic Change in Onion and Other Vegetables Markets

Adopt	Adapt
<ul style="list-style-type: none"> 116 BDAs (104 male & 12 female) deployed by 19 agro dealerships. 440 Sales agents (372 male & 68 female) recruited and assigned to 392 sales points created by the businesses. 10 Partner agro-input dealers fully adopted the business logos (trade mark) and have begun using 	<ul style="list-style-type: none"> [REDACTED] invested in the new business model MADE introduced, independently of programme support by setting up 3 extra sales outlets close to beneficiaries to make their products and services readily available and accessible to target customers/clientele

<p>them on their official letterheads and product packs.</p> <ul style="list-style-type: none"> 12 agro-input dealers have adopted the full bundle services delivery model. This include provision of critical inputs and services on cash/credit basis in a single bundle. The bundle includes adoption of the BDAs, Farm Input Purchase and Use Books (FIPUBs), and brokerage services. 19 agro-input dealers have adopted agro input days and customer visitation at their farms to offer on-farm extension services; 	<ul style="list-style-type: none"> ██████████ adapted the FIPUB providing "customer passbooks" at the business' own cost to manage credit arrangements with its customers. ██████████ invested in the new business model MADE introduced independently of programme support by hiring more staff, providing extra incentives for staff to roll out the new business model, and purchasing extra inputs to sell to SHFs.
Expand	Respond
<ul style="list-style-type: none"> 1 input dealer, Independent of MADE support, replicated the MADE facilitated customized media products to produce and run TV adverts with Tamale based North TV and Sagani TV. 	

See Annex 1 for the full set of results.

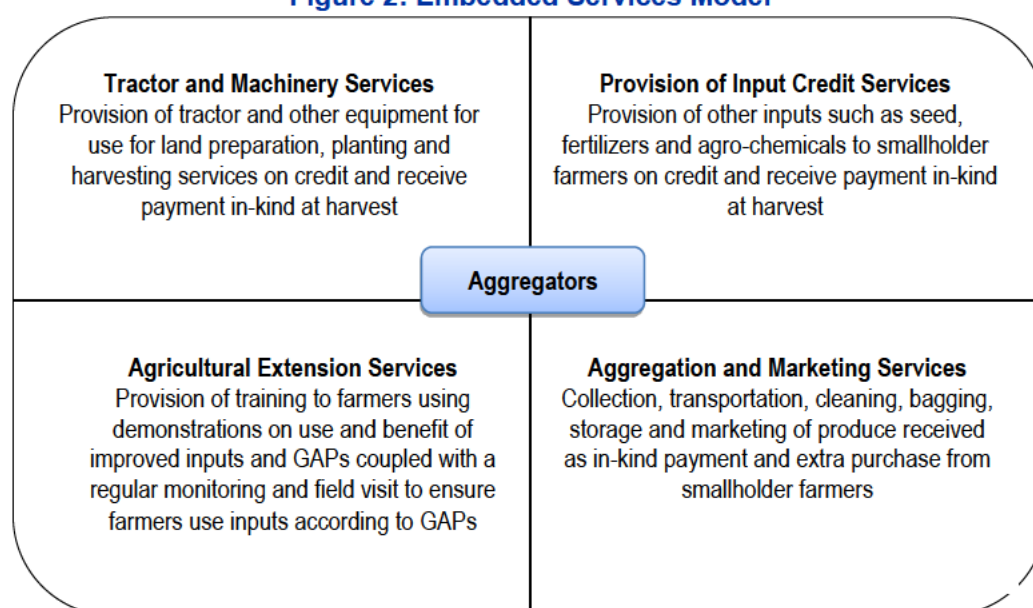
1.3.2 THE AGGREGATOR MODEL – RICE AND GROUNDNUT AGGREGATORS

The focus of activities in the rice and groundnut market sectors was:

- Expansion of the delivery of embedded services
- Introduction of Farm Enterprise Advisors
- Introduction of the Farmer Passbooks
- Producing and Supporting the Adoption of Aflatoxin Control Procedures

Embedded Services Model

In Year 4, MADE partnered with 40 aggregator businesses in the rice and groundnut value chains. This was an increase in 10 partners from Year 3. MADE consolidated and expanded through its partners the provision and delivery of a set of embedded goods and services, including agricultural extension services, SHFs. (See Figure 2).

Figure 2: Embedded Services Model

MADE supported its partners to strengthen and develop their produce aggregation and out-grower scheme management strategies (first mile supply) which are critical to them securing the volumes of produce they need for supplying contracts with buyers. Partners adopted a number of methods to strengthen the relationship with their SHF clients.

Promotion of inputs and service integration/bundling;

In the rice and groundnut value chains, MADE's agribusiness partners invested in and provided two or more of the four embedded services outlined in Figure 2. to the majority of their SHFs.

- **Rice:** The 21 aggregators provided services to a total of 32,755 SHFs in the rice value chain. The number of services they received were as follows:
 - 1,795 received one service,
 - 2,766 two services,
 - 7,360 received 3 services and
 - 20,834 all 4 services.

The total value of services provided by the partners were [REDACTED] of which the largest share [REDACTED] was the provision of ploughing services and seed.

- **Groundnuts:** The 19 aggregators provided a total of 21,109 SHFs in the groundnut value chain. The number of services they received were as follows:
 - 8,991 received one service,
 - 6,361 two services,
 - 2,839 received 3 services and
 - 2,918 all 4 services.

The total value of services provided by the partners were [REDACTED]. As with the rice value chain the largest share [REDACTED] went on ploughing and quality seed supply

The high proportion of SHFs who received multiple services indicates the attractiveness and high level of adoption of the bundling model, particularly in the rice sector. This necessitated a larger amount of investment by partners to introduce and deliver these services to their SHF clients. To reduce the financial and transaction costs of the introduction of the bundle of services, MADE brokered and facilitated bulk procurement of inputs for aggregator partners such as seeds to improve access to inputs and output market such as processors.

Introduction of the Farm Enterprise Advisors

All 40 partners introduced the provision of Farm Enterprise (FEAs) to offer advice on good agronomic practices (GAP) to their client and carry out monitoring and supervision of SHFs crop management techniques. The 270 FEAs (85 in the groundnut sector and 185 in the rice sector) undertook a range of activities to increase the agricultural knowledge of the SHFs. In the rice sector 2,300 planting days were organised during which 28,554 participated in training sessions on best practice techniques. These were complemented by weeding and fertilizer application training days. The effectiveness of the FEA trainings was tracked by seeing the take up of new techniques. Take up was generally high

Introduction of farmer passbooks

To facilitate the adoption of improved record keeping by aggregators and to deepen the trust with SHFs, MADE printed and distributed 63,000 farmers passbooks. The passbooks record the transactions with the SHFs to introduce transparency and accountability in the management of these transactions.

Promoting and Supporting the Adoption of Aflatoxin Control Protocols

MADE facilitated a business to business (B2B) mentoring pilot between [REDACTED] and [REDACTED] a South Africa based agri-business company. Experts from [REDACTED] assessed the current aflatoxin control system amongst [REDACTED]'s 9,000 SHFs to understand the technical assistance they require implement strong practices and procedures. Analysis included a consolidated benchmarking and gap analysis report on seed management, land preparation, planting methods, pests and disease control, and weeding management, harvesting, drying, transport/hauling and storage. This informed recommendations on how [REDACTED] could strengthen Aflatoxin control by its SHFs which will enable it to strengthen the supply of high quality aflatoxin-free groundnut.

Following the expert advice from [REDACTED], MADE intends to supplement the progress it has made to-date with the aflatoxin control protocol by supporting partners in Year 5 to introduce the use of Aflasafe, a natural fungicide, to control aflatoxin.

A summary of key progress towards systemic change is illustrated by the following Year 4 results for rice and groundnut aggregators is below.

Table 4. Summary of Systemic Change in Rice and Groundnut Markets

Adopt	Adapt
<ul style="list-style-type: none"> All the 40 partner aggregators in both markets have invested in private extension service delivery model by recruiting and deploying 270 FEAs to improve their service delivery to SHFs. All the partners invested in provision of various bundles of embedded services in the form of input credit and improved extension service delivery approach to smallholder farmers. 	<ul style="list-style-type: none"> [REDACTED] have all invested in the new business model MADE introduced, independently of programme support, by hiring more staff, providing extra incentives for staff to roll out the new business model, and purchasing extra inputs to provide more services to smallholder farmers. [REDACTED] have invested in the new business model MADE, introduced independently of programme support, by investing extra resources in tractors for ploughing smallholder farms Some of the MADE rice and groundnut partners, such as [REDACTED], have extended their areas of operation to scale up the model following the early positive results on quality and quantity of SHFs crops obtained through adoption of MADE models

Expand	Respond
<ul style="list-style-type: none"> • [REDACTED] (a Savings & Loans organisation) has gone into partnership with [REDACTED] (rice aggregator) in response to the partners improved relationship with out-growers to provide credit to the farmers to access inputs for their farms. • Similarly, [REDACTED], a rice aggregator, has responded to the strengthened relationship Kharma (groundnut aggregator) has secured with its out-growers to partner with Kharma to supply inputs on credit to its rice out-growers. 	

1.3.3 MARKET SUPPORT FUNCTIONS

Tractor brokering / Agri-leasing

In the absence of farm machinery, SHFs in the northern Ghana tend to plant and sow late in the year, because of slow and labour-intensive land preparation and find it difficult to complete harvesting at the time of peak quality of crops. SHFs inability to carry out and complete agricultural tasks at the optimal time in the agricultural season has a major impact both on product yield and quality. It also lowers the return SHFs may make on any investments in farm productivity, such as use of improved seed varieties and deter future investments.

To overcome this constraint, MADE facilitated a tractor brokerage scheme during the key months of the growing season April – August 2017. Mechanized service providers, located in Brong Ahafo region, were contracted by MADE to provide their services to selected agribusiness partners to ensure SHFs could access tractors and harvesters' services as and when required. The costs incurred by MADE in searching for machinery owners, willing to offer services to MADE partners, was not included in the charge for the brokerage services passed on to the partners. To open up a market for the tractor brokerage services MADE decided to absorb these costs to demonstrate the value of the service to MADE partners and machinery owners.

Ten partners, who provided detailed information on the mechanization services required by their SHFs clients, were selected to be part of the tractor brokerage scheme. Through the scheme, the partners received the services of 38 tractors at the beginning and end of the growing season. Each of the partners reported that they received timely tillage service delivery which had a positive impact on SHFs being able to plant and carry out crop agronomic practices at the right time.

A total of 8,919 smallholder farmers utilised the tractor brokerage service for land preparation and ploughing in Year 4 of which 4,532 (50.8%) were women. In addition, 2 agribusinesses benefited from a combine harvester agri-leasing scheme¹² brokered by MADE accessing 12 combine harvesters which were used to harvest the rice crops of 2,072 SHFs of which 696 (33.5%) were women.

Overall the tractor brokerage and agri-leasing programme achieved:

- 10,953 (rice: 5685; groundnuts: 5268) acres ploughed within the ploughing window with a service cost of [REDACTED]
- 4,725 acres harvested with a total service cost of [REDACTED]
- Credit is still a key constraint to accessing mechanised services. Through MADE's tractor brokerage assessment it was discovered that 54% of farmers involved in the intervention received tractor services on credit from MADE partners compared to the 7% who paid for the tractor services with credit from commercial lenders or finance from 'friends/family'
- Improved yields as result of use of combine harvester that reduced on-farm losses associated with manual harvesting

¹² MADE facilitated the relationship between an equipment supplier to lease the combine harvester to a partner with support of a financial institution. The product is being analysed to see if it is viable to be applied to the next season.

Irrigation / Climate smart agriculture

Northern Ghana's agricultural productivity is lower than in other parts of Ghana¹³. One of the key causes of that low productivity is the lack of small-scale irrigation which if available would reduce SHFs reliance on rainfall for cultivation of crops. Northern Ghana experiences highly variable rainfall distribution which is being exacerbated through the effects of climate change. This results in the region receiving little to no rain for extended periods up to 9 months.

To address this constraint, MADE entered into a partnership with [REDACTED], a social enterprise that design of appropriate technology for livelihood improvement, to assess the potential of the introduction of irrigation technologies in Northern Ghana. The objective of the 6-month pilot was to improve MADE partners and their vegetable farmers capacities to irrigate their vegetable farms using improved conservation and irrigation techniques relevant to each MADE stakeholders' context and resources.

The timeframe for the pilot, September 2017-February 2018, was tight given the level of its ambitions. iDE experienced challenges from the start when it became necessary to source irrigation pumping and drip equipment from international markets due to the prohibitive cost of equipment in Ghana. This delayed and curtailed some interventions, such as the testing and adaptation of the irrigation packages to suit SHFs requirements, forced the establishment of an onion nursery and model farm to showcase the benefits of irrigation in locations some distance from where farmers cultivate vegetables.

[REDACTED] contracted 8 Farm Business Advisor Managers (FBAMs) and 52 Farm Business Advisors (FBAs) to provide agronomic advice to SHFs and supply drip kits and accompanying agro-inputs. Many of the FBAs were operating in the same regions as MADE input dealers which caused some confusion amongst SHFs on who to purchase goods and services from. [REDACTED] reported that 5,261 vegetable farmers registered with the pilot and 4,321 farmers were exposed to training on preventing and treating pests and diseases of vegetable crops and water management techniques.

The pilot, through the sourcing and testing of irrigation equipment, did successfully engage with 6 international and national irrigation supply companies. The work of [REDACTED] made these companies aware of and sparked their interest in the potential of the market in northern Ghana. This interest was fanned by the Field Day at the Model Farm in February 2018 which was attended by representatives of input and equipment suppliers such as [REDACTED], many of whom were located outside of northern Ghana, and came to Tamale specifically for the Farm Day.

[REDACTED] assessment of irrigation systems and engagement with irrigation equipment suppliers has increased MADE's knowledge of the irrigation supply market which it will use during the extension to undertake further work to develop a sustainable irrigation supply and maintenance model. It will also be able to integrate key lessons learnt from the pilot into a future intervention such as the use of private extension workers to support the installation of irrigation equipment with agronomic advice to SHFs.

The participation of companies such as [REDACTED] in the pilot has increased their interest in building a market presence in northern Ghana. They have indicated willingness to work on a follow up intervention to the pilot. MADE is likely to be able to pick up these relationships with key equipment dealers to design a further intervention and work with them to adapt their technologies to the northern Ghana context.

The pilot also demonstrated initial demand for irrigation equipment in Northern Ghana is likely to come from larger more commercially orientated farmers with margins on their crops which will enable them to invest in irrigation. MADE will need to work with its agribusiness partners which intend to introduce irrigation services to segment the potential market and effectively target their services and products to commercially oriented farmers. Once the irrigation market is established and suppliers see its potential, they are likely to start to innovate and adapt their products to suit the requirements of other segments of the market such as SHFs.

¹³ MADE Business Case February 2013

Business Growth Accelerator (BGA)

The rationale for the establishment of the BGA was based on the need to address various market failures, such as provision of effective and demand driven business advisory services, that prevent small agribusinesses gaining the support and finance they need to grow. The BGA was devised to overcome this market failure and be a way that MADE could offer an additional and much needed service to MADE partners. Critically for a market development programme, the BGA was designed not to 'crowd out' the offer from local business advisory service providers.

The BGA service was provided by a consortium of companies, [REDACTED] based in Ghana and [REDACTED] in the UK. The BGA identified and offered a Growth Mentor (or coach) for the business client who undertook a diagnostic to form a tailored growth action plan for the client. The Mentor would then signpost the client to local business support and finance providers most appropriate to the client's needs and facilitated introductions. Finally, once the BGA had engaged a critical mass of clients, Business Learning Groups (BGLs) were set up to allow clients to share experiences with peers.

The pilot phase, launched in Year 3 which ran from April 2016 until February 2018, was based in Tamale. The BGA worked out of the MADE project house in the same compound as the MADE office. The BGA hired four full time Ghanaian mentors (with a mix of skillsets ranging from banking, organisational development and agribusiness management) two support staff, and were supported by headquarter staff from [REDACTED] and three international mentors from [REDACTED].

They were supported by the MADE team with a vehicle as they required to travel all over the 3 regions in the North. The pilot was successful in delivering key outputs such as signposting over 38 clients to over 120 services including: access to finance, governance, management information, market access, organisation development, team development, strategic decision making. Other results include:

- 14 workshops held with an average of 11 attendees per workshop
- 32 coaching sessions held with Business Service Providers
- 6 BLGs were established meeting over 40 times – with an average of 5 participants per session
- Average change in revenue was an increase of 46%
- Average increase in full time employment of 39%
- Average increase in SHF outreach change of 42%

An evaluation of the intervention was commissioned by MADE in February 2018, to assess if there was evidence of systemic change, if the approach was sustainable, and how the intervention may be taken forward in the two year MADE extension. The evaluation found a service that assists entrepreneurs to devise growth strategies for their businesses and connect them with the appropriate advisory and financial services is still required in Northern Ghana. However, it recommended a revision of the model for delivery of the service as it was assessed as too complicated and not appropriate for the thin agricultural markets of Northern Ghana. The BGA model was based on one used in the far more mature and complex UK market.

Despite the complexity of its model, the BGA did succeed in supporting several partners to introduce new business practices with the guidance of local business advisory service providers.

A further observation from the evaluation is that the BGA intervention model used breaks down when the capacity of the available business advisory service providers is weak. Successful signposting relies on the availability of appropriate and strong local business advisory services to support the implementation of the business growth action plan developed by the MADE business partner with the Growth Mentor. In Northern Ghana the capacity of the business advisory service providers is variable and does not offer some of the detailed technical expertise required by MADE partners.

There has been strong participation from MADE partners in the 6 Business Learning Groups. Four were established for clients located in Boga, Wa and Tamale (a mixed and a women's only group). A further 2 were established in Accra and the North for Business Advisory Service Providers.

The Tamale BGL was the largest and met the most often, holding 9 meetings. The higher density of enterprises in Tamale, the capital city of Northern Region of Ghana made it easier to establish the critical mass of business members required for a peer learning group to be effective. A key recommendation from the evaluation was to continue to facilitate existing and new BGLs in the two-year extension.

The evaluation concluded that the BGA concept should be maintained with a simplified intervention model which would involve: :

- Develop simpler advisory "products" for business and ICT based delivery mechanisms
- Consider a tiered service, providing for intensive and continuous support to the subset of ambitious and innovative firms

Table5. Summary of Systemic Change as a result from Supporting Functions

Adopt
<p>Mechanisation</p> <ul style="list-style-type: none"> • 10 partners successfully adopted and accessed the tractor brokerage services at the beginning of the season reported timely tillage service delivery to their out-growers as compared to previous years <p>Irrigation</p> <ul style="list-style-type: none"> • There are no signs of adoption of the practices or equipment delivered by the pilot. However, if MoUs are agreed with equipment suppliers during Year 5 partner selection, initial signs of adoption may have resulted from the pilot. <p>BGA</p> <ul style="list-style-type: none"> • [REDACTED] implemented a new record keeping system recommended by the BGA Growth Mentor • [REDACTED] have acted on the Growth Mentor's recommendation to recruit field staff for farmer oversight, and have replaced informal arrangements with their SHF supplier network with formal contracts • MADE partners have changed their estimation of the value of business advisory services: The majority of business owners reported that prior to receiving BGA support they were sceptical of the commercial value of external advice. Based on their experience with BGA they would be more likely to use external advisory services in future

1.4 IMPROVING RULES, NORMS AND ATTITUDES

In Year 4, MADE worked on improving transparency in commercial transactions to provide the right conditions for building trust between and among entrepreneurs and SHFs. To increase transparency in market operations MADE focused on influencing a change in informal rules.

The development of the Agro -Input Dealer Led model and the Aggregator Embedded Services model involved the introduction of shared and agreed records of transactions between SHFs and aggregators and input dealers for the first time. The distribution and use of 63,000 farmer passbooks and 4,500 FIPUBs by SHFs for the first time have started to introduce some formality to the exchanges between enterprises and SHFs. The roll out and use of these records was led by the FEAs and BDAs who made entries in the Books in the presence of the SHFs. These Books are the initial steps in building trust and accountability between commercial partners in the agricultural sector.

In Year 4 MADE has continued to focus its attention on the informal rules of the market which govern the core market transactions. The 2016 external evaluation and the 206/17 DFID Annual Review recommended that MADE increase its engagement with government ministries and agencies on policy and development changes that could be made to make markets function more

fluidly in the North. There has been limited action taken by MADE to engage with public sector representatives during Year 4

The slower than expected traction in the thin agricultural markets in the first 2 years of the programme resulted in impacts of MADE's market development approach being delayed as well as the analysis and distilling of lessons learnt from the approach. Clear analysis of results of a market development intervention is the fundamental foundation for successful interactions with government representatives. The planned focus on impact measurement and dissemination of results and lessons learnt scheduled for the second half of Year 4, highlighting the changes in commercial transactions between stakeholders and the market systems in which they operate, was only partially progressed.

A strategy effectively communicates the successes of the market systems approach adopted by MADE to influence informal and formal rules of the markets in northern Ghana is a major priority for MADE during the 2-year extension.

1.5 LESSONS LEARNED FROM IMPLEMENTATION OF MADE MODELS

Progress to-date on the MADE models offers evidence that, with the right incentive and interventions, a market systems approach can catalyse and bring about significant change in the scale and quality of market transactions and operations. This is the path to systemic and sustainable change when it is adopted by SHFs and enterprises and becomes a norm of business transactions in Northern Ghana. Key lessons learned in Year 4 are:

1. Deployment of BDAs and FEAs contributes significantly to agribusiness – farmer/client relationship improvement.

Adoption of the Business Development Advisor (BDA) 116 BDAs (104 male & 12 female) deployed by 19 agro dealerships and Farm Enterprise Advisor (FEA) models 270 FEAs (85 for groundnut partners and 185 for rice partners) by agribusiness partners considerably improved the business relationship between the partners and their SHF clients. The stronger relationship reaped business benefits in improving service provision and delivery to SHFs, monitoring of farm management and recovery. The FEA model delivered:

- 2,300 rice planting field days were organised to demonstrate good agricultural practices and new technologies to increase yields and raise productivity. The result showed that 28,554 farmers participated and 27,421 adopted the practices demonstrated
- 28,291 rice farmers participated in weeding and fertilizer application field days leading to 29,729 farmers practicing good weed control and 26,833 farmers adopting good fertilizer application practices
- There were 526 groundnut planting field days organised with 14,582 participants and 11,293 farmers adopting good planting practices.
- 2,980 weeding and fertilizer application field days were organised for SHFs producing groundnuts attended by 11,933 SHFs with 11,710 and 6,213 farmers adopting the recommended weed control and fertilizer application methods, respectively.

The advisors ensured the agribusiness partners had accurate information on the products and services required by SHFs and the volume required. This client information enabled the partners to meet the demand of their clients whilst ordering and controlling stock efficiently. For the SHFs their needs for input and service were delivered in a coordinated manner and appropriately bundled thereby reducing their transaction costs and giving them the right inputs at the right time. The BDA model delivered 21,374 (7,154) customers reached (with 15,962 (5,684) or 75% being new outreach customers during the Year 4 season)

SHFs also received individual advice from the Advisor on the inputs (and services) to use to achieve quality crops, the method, timing and amount of application to secure the greatest return on investment. The adoption of the BDA/FEA models can reduce risk of sourcing the wrong input varieties, misapplication, low productivity, side selling of crops, and non-payment for goods. The

model promotes a win-win relationship by supporting the business to grow their market share as well as increase the value add to the services received by the SHFs. From the BDA model, 8,493 (2,931) SHFs representing 40% of the total outreach in Onion and Vegetables received product use and/or application information.

A key lesson from the roll out of the model is the importance to the SHFs of regular monitoring of their farm practices and crop management and provision of technical advice. Notwithstanding the achievements of the model, the most effective FEAs/BDAs are those with passion for working with SHFs and see this opportunity as a long-term career. FEA and BDA recruits who have links with or identify themselves with the SHF clients have proven to be the best change agents with SHFs.

2. Sustainability of the FEA/BDA Model

The value of the agricultural advice provided by the FEAs and BDAs is only as good as the knowledge that these agents possess on the proper use of the inputs and services they are promoting. Capacity building and intensive training of FEAs/BDAs on the agricultural products they sell, including their use and application, and positive impacts on crops is vitally important. As demand for products and technical advice grows, MADE is working with major wholesale suppliers of agricultural inputs and equipment, as well as its partners, to invest in the training of the Advisors to ensure their products when used by SHFs fulfil their maximum potential. This will build both brand recognition and trust as well as market share.

Ensuring the sustainability of the BDAs/FEAs models requires the Advisors to secure income for the MADE partners that employ them throughout the year not just during the growing season. This is difficult to guarantee in rain-fed regions of northern Ghana where production is limited to a single crop per year. Retaining the Advisory team throughout the year can be achieved when agribusiness partners diversify their product range to include products in demand all year, such as solar lamps, agro vet supplies and animal health advice. A wide range of products enables FEAs/BDAs to continue to have regular engagement with their customers throughout the year. This prevents the loss of clients in between growing seasons and ensures key agents for change have commercially viable permanent employment.

3. Bundling of inputs and services

Reliable input and service delivery by agribusinesses has proven to be one of the most effective ways of sustaining and improving the business relationship with the SHFs. Following the results achieved with delivery of more than just one service or input to SHFs, MADE introduced in Year 4 the bundling of assorted inputs and services in a single package to maximise yield improvements and productivity gains.

Twelve months after its introduction, it has become clear that the bundling model reduces the cost of service and input delivery, enhances SHFs access to and use of the right quantity and quality of inputs and services, increases land area used for cultivation and improves the reliability of credit recovery. Thus, the agribusinesses that are able to bundle and deliver a good number of inputs and services to its customers largely get a good return on their investment and the support package extended to the SHFs improves their sales revenue and income levels. However, the return on investment for the agribusiness and the SHFs varies from the nature/type of bundle (i.e. basic, medium and full) adopted.

4. Multiple Markets

Agri-businesses as well as their SHF clients do not operate in a single agricultural market. The agribusinesses and the SHFs invest in a range of high value markets¹⁴ in order to maximise commercial opportunities and hedge against price fluctuations. SHFs often divert some of the inputs and services delivered by agribusinesses to grow products that the agribusiness does not

¹⁴ Rice, groundnuts, soya, sorghum, assorted vegetables, cowpea, etc.

wish to purchase. Likewise, many agribusinesses have interest in purchasing products that are not necessarily being cultivated by their SHF clients.

Through work with its partners, MADE is aware of the operation of SHFs and agribusiness in multiple agricultural markets. It initially introduced its models and services in a limited number of markets to enable them to be designed, tested and rolled out in defined market settings. Following their successful adoption and adaptation by partners in the 4 value chains, the models are now sufficiently robust to be introduced in a range of value chains. In addition, the MADE team has built up extensive experience in supporting agribusiness to adapt the business models to suit the specific conditions in different markets.

The strength of the MADE models and team enables MADE to expand its approach from a focus on implementation of models in selective markets to the promotion of business models that can operate across multiple markets and meet all of the SHFs requirements for goods and services for the whole of his/her farm, instead of meeting a portion of those needs.

The extension phase of MADE is focusing on providing to agribusinesses an **advanced model** that enables them to deliver an integrated package of inputs and services at scale to their SHF clients operating in a range of value chains. Provision of the integrated package of inputs and services in multiple markets will help to reduce the diversion of inputs and services and lead to improved recovery, diversification of supplies and return on investment.

5. Developing an inputs supply chain in thin market dominated area.

Prior to MADE's interventions, the major agricultural input supply companies and distributors, especially in the vegetables value chain, were not operating in the NSEZ. Even though these companies knew vegetable cultivation was being carried out in NSEZ, they had limited information on the size of the market for improved seed and their complementary inputs for cultivation. Additionally, they were reluctant to invest in the northern region market for risk of an unknown return on their initial investment.

After two years of MADE's work with 2 major seed companies¹⁵ including co-investment in the creation and the roll-out of demand generation strategies, NSEZ now has a large number of agro-inputs supplier companies¹⁶ operating in the region and building markets for their products¹⁷. SHFs now have access to a range of inputs and services products which are more competitively priced.

Key to this success has been the ability of MADE supported agribusinesses to demonstrate the size of market demand for a particular critical service and/or input through the provision of reliable facts and figures¹⁸ collected following business development mentoring support provided through the MADE programme. As a result of this reliable market and client data, former and existing MADE partners are investing in opening regional distribution outlets, deploying regional Sales Officers, providing supplier credit sales to accredited agro-input dealer businesses, and running marketing campaigns and sales strategies.

6. Demand for Business Learning Groups (BLGs)

BLGs are a group of peer businesses engaged in peer to peer group learning. The BGL members meet for interactive sessions assisted by specialist experts. Sessions focus on learning from group members' own practical experience and discussion and reflection on how to improve businesses performance. The issues discussed are usually shared business challenges or opportunities.

Prior to the establishment of BLGs, co-operation amongst competitor businesses was rare and it was highly unlikely that they would be willing to meet regularly to exchange experiences, positive and negative, of business practices and share the expense of securing expert advice. The concept

¹⁵ [REDACTED] s

¹⁶ [REDACTED]

[REDACTED]

¹⁷ Improved seed varieties, plant nutrition & protection products; irrigation kits, etc.

¹⁸ Supplies and sales revenue of existing suppliers

of BLGs proved that businesses are willing to co-operate when they see the value for their enterprises.

Section 2. OVERALL PROGRAMME ACHIEVEMENTS

This section reports on achievements against the programme logframe for Year 4 (April 2017 - February 2018).

2.1 IMPACT AND OUTCOME LEVELS

Verified results and achievements against the logframe targets for the outcome level indicators are provided in Table 4 below. Full details on the verification methodology is outlined in Section 3.

While MADE secured 62% of the expected target for Outcome Indicator 1, the number of poor farmers and small-scale entrepreneurs experiencing higher sales and turnover, it did deepen the gains of SHFs in the increase of their net income increase to ██████ (cumulative). This deepening of income change is a focus of the extension and is reflected in the revised logframe which was approved with the extension in January 2018.

Yield gain targets (Outcome Indicator 2) have been exceeded as have the gender achievements for two of the Outcome indicators. Results for Outcome 1 and 2 also do not take into the account of the effects or results of crowding-in of other agri- businesses. This will be a key activity of the extension and subsequent monitoring will be adjusted to capture results from such businesses which can be attributed to MADE.

Outcome Indicator 3 results reflect the verified instances of practices towards systemic change which were outlined Section 1.

Table 6: MADE Impact and Outcome Indicators

Statements	MADE Measurement	Progress (Y2,3 and Y4 only) Figures in brackets indicate the number of women	Validation, Justification, Evidence
Impact Level Statement Economic growth and poverty reduction in the Northern Savannah Ecological Zone	Impact Indicator 1: Average daily consumption expenditure per capita in the Northern Savannah Ecological Zone) Northern Region, Upper West and Upper West regions plus northern Brong Ahafo and Volta regions	Not to be measured until 2017/2018 (Target \$4.60 Baseline: \$3.71 in 2012)	Source of information for assessment: USAID Feed the Future Indicators for Northern Ghana. Like most macro level data, this information is not yet available for 2018. Other sources such as the World Bank also do not yet have data for 2018.
Outcome Level Statement Improve incomes and agricultural yields of poor farmers and small-scale rural entrepreneurs in northern Ghana through systemic change in target markets	Outcome Indicator 1: Income/sales change - Number of poor farmers and small-scale entrepreneurs who, respectively, experience higher sales and higher turnover as a result of new or improved models introduced through facilitation by MADE (women in brackets) (cumulative)	Target 2017/18: 77,636 (11,645) Results; Partially met: 48,164 (21,059)	The partners reported that on average 72.7 % (70.5% rice; 59.0% groundnut; and 87.0% onions and other vegetables) of the farmers experienced sales increases. MADE verified this by sampling a number of farmers. Where the result from the interviews were more than 10% higher or lower than the number from the partners' milestone reports, the result was adjusted by taking the midpoint between the two numbers Following the verification process, the reported figures from the partners and the SHFs were adjusted. The adjusted average of farmers across the four (4) markets experienced sales increases was 52.8% (51.4% for rice; 44.4% for groundnut; and 61.7% for onions and

			other vegetables) Steps were also taken to ensure there was no double counting
	Outcome Indicator 2: Productivity - Number of poor farmers who experience higher yield as a result of new or improved models introduced through facilitation by MADE (women in brackets) (cumulative)	Target 2017/18: 39,000 (5,850) Results: Exceeded 53,031 (23,030)	<p>The partners reported that 72.5% (68.3% rice; 60.3% groundnut, and 88.6% onions and other vegetables) of the farmers recorded increases in yield. MADE verified this by sampling a number of farmers. Where the result from the interviews were more than 10% higher or lower than the number from the partners' milestone reports, the result was adjusted by taking the midpoint between the two numbers</p> <p>Therefore, adjusting the figures reported by both the partners and the farmers established that 53.2% (49.5% rice; 46.8% groundnut; and 63.7% onions and other vegetables) of the farmers experienced yield increases. Steps were also taken to ensure there was no double counting</p>
	Outcome Indicator 3: Business practice/systemic change – Number of instances of systemic change (see MADE's definition of systemic change) (cumulative)	Target 2017/18: 9 Results Exceeded 17	<p>From the reports submitted by the partners, the instances of systemic change in practices were identified and the respective partners were subsequently contacted to verify these observations.</p> <p>The instances of systemic changes in practices included the following:</p> <ul style="list-style-type: none"> - [REDACTED] established 3 sales outlets/retail shops at vantage locations - Three businesses [REDACTED] increased their outreach (i.e. Customer based) in the onion and other vegetables markets; - [REDACTED] also increased outreach farmers in the rice market. - [REDACTED], also increased investment in fleet of tractors (for service provision)

2.2 OUTPUT LEVEL

MADE's output level results provide evidence of progress towards lasting systemic change in the programme's 4 focus market sectors. Outputs are measured at three levels, i) capturing changes in the core ii) in the supporting market functions and iii) in rules and regulations governing the operation of the market. Annex 1 gives a full list of results which have been used for the logframe reporting.

2.2.1 CORE OUTPUT LEVEL

Core Output Level Statement - "Selected rural market systems work more effectively for poor farmers and small-scale rural entrepreneurs"

In Year 4, MADE successfully supported its aggregator partners to adopt the practice of offering and delivering a bundled package of goods and services to their SHF clients. As a result, MADE

has exceeded the target for Output Indicator 1.1, with 68 market actors changing their business practices.

Underpinning the achievement of this target is the convincing business case MADE gave to its partners on the investment of the bundled services and the employment of FEAs. Co-investment in the costs of the bundled services and the FEAs lessened the risk to partners of the adoption of these new practices. In addition, the credibility of the MADE team and of its models, built up within the business community over its 3 years of operation, has led to adoption of new practices by MADE partners and investment of significant levels of their own capital.

The scale up and increase in products and services offered by MADE's partners has drawn attention from an increasing number of smallholder farmers wishing to access these services. The cumulative total for the 4 years of the programme for the number of SHFs and small-scale entrepreneurs (SSEs) accessing and using new or improved inputs and services through MADE's facilitation increased from 30,086 in Year 3 to 53,495 by the end of Year 4. (43.4% were women).

This figure only includes SHFs and SSEs in MADE's four markets. However as outlined above in Section 1.5, MADE's partners and their SHF clients work across multiple value chains. The introduction of the models in all the value chains in which partners operate during the extension is likely to result in a significant increase in the number of SHFs and SSEs accessing partners inputs and services. This will help address the current shortfall in this target and ensure MADE reaches its ambitious targets in the next two years.

Output 1.3 is also KPI 1 of the MADE ICF indicators. MADE works in Northern Ghana which is susceptible to climatic shocks given its single rainy season and long dry season. As an agricultural market development programme, the majority of the MADE's business models contribute to the climate resiliency of SHFs. MADE helps SHFs to mitigate the negative effects of climate change on their agricultural production by providing access to agricultural tools, inputs and services that enable SHFs to adopt agricultural practices that improve climate adaptation or resilience. These include:

- Use of improved seed varieties e.g. early maturing varieties;
- Adoption of appropriate tillage e.g. rows, farrows etc.;
- Soil management practices e.g. fertilization, mulching, crop rotation, application of organic manure .;
- Water management especially in onion and other vegetable markets.

Table 7: Output Achievements against Logframe – Output 1 - Core Market

MADE Measurement	2017/18 Target	Progress (Y1-4) Figures in brackets indicates the number of women	Validation, Justification, Evidence
Output Indicator 1.1 - Number of market actors directly facilitated by MADE changing their business practices and/or forming new partnerships in markets facilitated by MADE (cumulative)	60	Exceeded 68	MADE was able to facilitate the change of business practices by 20 additional partners in Year 4. This includes new partners as well as existing partners. Changes include: <ul style="list-style-type: none"> • 14 rice and groundnut aggregator partners¹⁹ which adopted the FEA model and provided private sector extension services to their out growers • 6 input dealer partners²⁰ which co-invested in BDA services to offer smallholder farmers technical

¹⁹

²⁰

			advice in the application of input supplies. All of these partners used the introduction of this service which strengthened their client knowledge and relationships to secure more favourable terms with seed companies such as products provided on credit.
Output Indicator 1.2 - Number of poor farmers and small scale rural entrepreneurs who use new or improved inputs as a result of facilitation by MADE (women in brackets). (cumulative)	58,500 (8,775)	Exceeded 53,495 (23,388)	MADE partners reported that 71.6% (80% rice; 54% groundnut; and 72.6% onion and other vegetables) of the farmers received new or improved inputs and services; Through the verification process, an adjusted percentage for farmers who used new or improved inputs after verification was calculated at 59.3% (63.9% rice; 47.5% groundnut; and 61.6% onions and other vegetables). Steps were also taken to prevent double counting double counting
Output Indicator 1.3 - Number of poor farmers and small scale rural entrepreneurs supported by MADE (DFID) to cope with the effects of climate change (women in brackets). (cumulative)	17,633 (2,644)	Exceeded 47,784 (35,809)	MADE detailed in its ICF results submission that the programme helps farmers cope with climate change through introducing tools, inputs and services that increase climate adaptation or improve climate resilience. Improved seed variety was identified by the MADE team as the key activity which supports SHFs to cope with climate change. It is also well monitored, so therefore has been used as a proxy for this indicator. Partners reported that 50.1% (54.8% rice and 82.8% onion and other vegetables) of farmers were supported with improved seed to cope with effects of climate change. Groundnuts was conservatively omitted due to limited supply in certified seed in Year 4

2.2.2 SUPPORTING OUTPUT LEVEL

Supporting Output Level Statement - “Supporting functions to effective markets strengthened”

The services accessed by SHFs from MADE’s partner agribusinesses on input credit included: improved seeds, fertilizers and agro-chemicals and services such as machinery, agricultural advice and marketing services. In addition to the numerical increase in beneficiaries for Output Indicator 2.1, there was also a wider geographical coverage with farmer outreach covering all of the major agricultural regions in Northern Ghana following the inclusion of partners from Brong Ahafo and Volta Regions.

As part of MADE’s validation of Year 3 results, a key recommendation was to revise the result for Output Indicator 2.2 (number of new or improved services introduced and provided to SHFs and SEEs) down to 6. The new figure was in line with the revised definition of the Outcome Indicator. The indicator includes only those services provided to *SHF beneficiaries* who are MADE’s end beneficiaries.

Services provided to MADE partners, such as input dealers, by the MADE programme no longer contribute to the output-level results. In addition, fulfilling the recommendation of the independent review has resulted in the focus of deepening the impact of existing services on SHFs and partners instead of pursuing an expansion of interventions. As a result of these 2 factors, MADE has not met the Output Indicator 2.2 target of the introduction of 28 services. A key new service for SHFs that was introduced in Year 4 was additional tractor services through brokering.

Perhaps, the most significant result from Output 2 is number of “non-MADE partner” market actors who have a positive perception of the models promoted by the programme (Output 2.3). In April 2018, ninety new businesses submitted Expressions of Interest to MADE to become partners in Year 5 representing 60% of total applications. This is a good indication of the potential of crowding

in of other private sector agribusinesses to replicate the MADE models and extend the reach and benefits of the programme to more SHFs and SSEs.

Table 2: Output Achievements against Logframe – Output 2 - Support

MADE Measurement	2017/18 Target	Progress (Y1-Y4) Figures in brackets indicate women	Validation, Justification, Evidence
Output Indicator 2.1 - Number of producers accessing financial and business services, research information and cooperative networks through MADE support. (women in brackets) (cumulative)	19,500 (2,925)	Exceeded 35,809 (16,175)	The partners reported that 56.3% of the farmers accessed input credit and other financial and business services. MADE verified this by sampling a number of farmers and business services. Through the verification process, an adjusted percentage for the farmers accessing credit and other financial and business development services was estimated to be 36.2% (50.5 rice; 45.3% groundnut; and 6.8% onions and other vegetables) Steps taken to prevent double counting
Output Indicator 2.2 - Number of new or improved services introduced and provided to SHFs and SSEs	28	Partially met; 10	Four new services were introduced to the rice and groundnut partners in Year 4 which included; <ul style="list-style-type: none"> • Mechanisation (Tractor and Combine Harvester) services; • Bundling of inputs supplies; • Input credit services; While one new service was introduced to partners in the onion and the other vegetables markets; <ul style="list-style-type: none"> • Provision after sales advice;
Output Indicator 2.3 - Percentage of surveyed market actors (who do not receive facilitation through MADE) who report positive perceptions of relevant business models supported by MADE (cumulative)	75%	Exceeded 84%	Through the process of partner selection for the Year 5 season, MADE collects a wealth of information from market actors who previously did not receive facilitation through MADE. To verify this, a survey will be issued to all applicants (those selected and those not selected) to determine their perception towards MADE. However, at this stage MADE has not yet issued the survey. Therefore, MADE has developed a proxy indicator which takes the number of new applicants for Year 5 who submitted EOIs (90) compared to the number of new applicants who submitted EOIs in Year 4 (41). This is an increase of 119.5%. We have applied this increase to Year 4's result of 70% to come to a proxy of 84%

2.2.3 RULES OUTPUT LEVEL

Rules Output Level Statement - “More effective rules and practices of market system in selected sectors”

MADE achieved 5 further instances of informal rule and norm change in Year 4. They are the following:

- 1. Improved commercialisation of buyer-seller relationships:** The introduction and successful adoption of FIBUPs has led to an improvement in the effective management of buyer-seller business transactions between smallholder farmers who regularly procure from input dealers. This is similar to the commercial relationships already established between out-growers and aggregators.
- 2. Access of SHFs to “after-sales service”:** The appointment of Business Development Advisors by input dealers to provide “after sales service” to smallholder farmers alongside

FIBUPs has resulted in improved product customisation, information gathering of product performance, product education and training as well as on-going product support.

3. **Use of innovative performance-based contracts:** The adoption by MADE partner aggregators and input dealers of performance-based contracts for the engagement of farm FEAs and BDAs, including payment by results and incentive bonuses, has helped offset the cost of the extension service provision and ensure further uptake.
4. **Recognition and adoption of product promotion** as a demand generation and growth strategy, MADE partners are using radio advertisements and technical leaflets, to promote product use and service availability based on business development advice offered through the MADE facilitated BGA.
5. **Realignment of business practices** to foster improved relationships with SHFs: Aggregators and input dealers are showing increased awareness in the design of their business practices of the value of building strong relationships with smallholder farmers. Examples include farmer passbooks, after sales service provision, input credit, and private extension.

This brings the cumulative total number of changes in informal rules and norms promoted by the programme and adopted by partners, service providers and SHFs to 16. Annex 2 outlines all of the 16 changes.

Table 9: Output Achievements against Logframe – Output 3 - Rules

MADE Measurement	2017/18 Target	Progress (Y1-Y4)	Validation, Justification, Evidence
Output Indicator 3.1 - Number of regulatory changes and policy reforms brought about as a result of the programme (cumulative)	15	Exceeded 16	There were 5 informal rules changes influenced by MADE in Year 4: <ul style="list-style-type: none"> - Improved commercialisation of buyer-seller relationships - Access of SHFs to “after-sales service” - Use of innovative performance-based contracts - Recognition and adoption of product promotion - Realignment of business practices For full details see Annex 2
Output Indicator 3.2 - Level of satisfaction of surveyed market actors with key aspects* of commercial relationships facilitated by MADE (cumulative)	High	High	A sample of 11 partners were asked to comment 5 elements of ‘satisfaction’ included in the logframe definition. Each element was measured on a scale of 1-4 and the average results were <ul style="list-style-type: none"> - Formality (3.2 out of 4) - Contracts and agreements (3.2 out of 4) - Input (3.3 out of 4) - Engagement (3.3 out of 4) - Relationship being helpful (3.6 out of 4) A total result out of 20 was calculated for each partner and then averaged. The average of the sample was 16.55 and resulted in a high ²¹ score.

²¹ The results were classified as follows: Low: 5-10; Medium: 11-15; High: 16-20;

SECTION 3. PROGRAMME SYSTEMS AND PROCEDURES

MONITORING AND RESULTS MEASUREMENT SYSTEMS

Following the 2016/2017 DFID Annual Review Recommendation for MADE to strengthen the Monitoring and Results Measurement (MRM) system, MADE undertook a series of reviews to assess its monitoring and verification methodology, the integrity of Year 3 results and to recommend changes to the verification procedures to strengthen the rigour of the results to be collected in Year 4.

The reviews considered the:

- 1) Methodology to measure changes against logframe indicators;
- 2) Validation of Year 3 results;
- 3) Assessment of MADE's verification system for partner reported data.

The key recommendations from the reviews, subsequently adopted, are detailed below.

Measurement Methodology Review

- (1) Develop and apply a set protocols for adjusting results when the numbers reported by partners and the annual surveys vary by more than 10%;
- (2) Revise definitions for informal rules and systemic change for Year 4 to ensure results do not include MADE activities and 'adoption' of change by MADE partners;
- (3) Develop a protocol for calculating overlap between partners and sectors in Year 4 to avoiding double-counting;
- (4) Apply an attribution strategy for all beneficiary-level results for Year 4.
- (5) Increase the robustness of MADE's results on yield change to overcome any possible bias in reporting; introduce a qualitative assessment for Year 4, (in addition to team observation) when considering partner-level changes to capture changes in partner satisfaction, crowding-in, and progress towards systemic change.

Validation of Year 3 Results

Following the result measurement methodology review, the Year 3 results were subjected to a validation exercise. This led to amendments to Year 3 results, which are reflected in this Annual Report results.

Partner Data Verification (PDV) System Review

The review scored each aspect of MADE's partner data verification system (including design and management, data collection, data processing, data quality checking and feedback) against a set of criteria.

The review suggested amending the PDV system to include increasing the capacity building of partners on the value of monitoring and MADE reporting requirements as a management tool for their business. It also recommended increasing the Market Development Specialists visibility of partner activities and processes prior to submission of partner reports.

Aggregation Protocol

At the beginning of Year 4, the MADE team developed an aggregation protocol which outlined the method and process for aggregating logframe results and provided guidance on addressing double-counting, under-reporting and standardisation. This protocol has been used to aggregate the Year 4 annual logframe results.

Attribution Strategy

MADE developed and approved an attribution strategy to record the approach MADE has committed to take to measuring attribution. This will provide third party observers with the details and rationale for MADE's approach and methodologies. The strategy functions as a supplementary chapter to the MADE M&E Handbook and thus is aimed at further enhancing the credibility of reported results. MADE's approach to measuring attribution is built on two elements; (a) Focusing

on contribution rather than sole attribution, and (b) guidance from DFID's 'How to Note' on attribution. The strategy was used in collecting and calculating the annual Year 4 logframe results.

Onion and Vegetable Annual Surveys

The main objective of the 2017 annual survey on onions and other vegetables was to test the hypotheses that underlies the Year 3 interventions²² in the onions and other vegetables markets. The survey used both quantitative and qualitative methods; a questionnaire and focus group discussions with beneficiaries and comparison farmers as well as interviews with MADE partners.

Assessment of Tractor Brokerage Pilot

In mid-2017, the MADE team measured the outcomes of the tractor brokerage pilot which occurred over the first two quarters of Year 4 to inform the design of any potential future mechanisation interventions and to gather data that might be used to encourage market players to take up the model. The overall hypothesis tested was: "An effective brokerage of mechanisation services will improve MADE's agri-business partner's capacity to deliver (tractor) services to SHFs". The research design was based on a retrospective difference-in-difference method²³.

Development and Consolidation of Partners' Database

The M&E team developed an effective database that captures and documents the key indicators from partner reports and monitoring. It includes consolidated dashboards of information for each sector tracking all the milestone activities such as FEA and BDA recruitment, value of services in different packages provided to SHFs and firm turnover and sales changes. This information allowed MADE to amend its VfM Framework and revise it in line with the DFID Year 3 Annual Review. As part of the verification exercise for Year 4 annual results, the partner database was updated.

Consolidate Database of Smallholder Farmers

The M&E team developed an effective database that captures and documents the number of SHFs adopting, accessing and using different services offered by the partners in Year 4.

Table 10: Consolidated Number of Smallholder Farmers Reached in Year 4

Market	No. Females	No. Males	Total	% of women
Rice	12,623	20,106	32,729	38.60%
Groundnut	8,419	8,611	17,030	49.40%
Onions & Other Vegetables	7,154	14,220	21,347	33.50%
Total	28,196	42,937	71,106	39.65%

Collection and Verification of Year 4 Annual Results (Data Quality Assessment)

MADE has made improvements to data collection and verification processes for the logframe indicators in Year 4. Every step of the process, from indicator definitions to data analysis, has been standardised and bolstered with additional verification checks to increase the rigour of MADE results. The steps taken to ensure the robustness of Year 4 annual results include:

- **Capacity building of partners:** to increase the quality of the data received from partners. The Monitoring, Learning and Dissemination Specialist (MLDS) ran training sessions for partners on the reporting templates in Quarter 2 of Year 4. This session

²² The onion and other vegetables growing and harvesting dry season ends in February. As Year 3 concluded in March 2017, the annual survey for Year 3 occurred in early Year 4.

²³ A difference in difference (DID) evaluation compares data from two points in time (first difference) and data from an intervention and comparison group (second difference). This allows increases the rigor of the evaluation to attribute results to the intervention. A retrospective DID utilise historical data for certain points of the evaluation if sampling is not feasible for the evaluation

was also used to build partner awareness of the value of monitoring to their business and to gain feedback from the partners on what support they needed during the reporting process.

- **Standardisation of indicator terminology:** Some MADE logframe indicators may be defined in different ways in different contexts, which creates the potential to aggregate inconsistent units or incomparable data sets. To overcome this, MADE has carefully defined indicators and applied these definitions consistently across all sectors and interventions. The full definition for each logframe indicator is documented in the MADE aggregation protocol.
- **Verification of partner and system level changes:** To verify the partner and system-level results for 2016/2017, the Market Development Team recorded observations sourced from field observations and partner reports. These were followed up via phone calls with partners or relevant stakeholders to ensure the observation was accurate.
- **Field-based verification of partner reported data:** To verify the beneficiary-level results reported by MADE partners, MADE triangulated the data from partner reports with the information on SHFs contained in the partners' farmer databases and conducted phone interviews with a sample of 471 SHFs drawn from the total group of beneficiaries reached by the partners. Table 11 below gives further detail
- **Standardised aggregation process:** The year 4 results from all interventions were assessed for double counting, under reporting, and standardised units by the MD team, with assistance and input from the MLDS. This assessment included accounting for beneficiary overlaps between partners in each sector, between sectors, and between services (for farmers receiving more than one service from the same partner) to avoid over reporting the reach of the programme.

Table 11: Verification process for Year 4 results

Process
Data was collected from partners via the milestone reports submitted in February 2018
The data quality was checked by the MDT for consistency, logic, and completeness. Amendments were made accordingly, based on follow-ups with the partners
Data adjusted based on a check of partner records – For partners where there was a difference between their farmer database (list of customers) and milestone report numbers, the MDT carried out a verification visit in March and April 2018. From the records examined during the visit, the MDT either updated the milestone report number or confirmed the existing number. The adjustment was applied to all the logframe indicators, including outreach (number of farmers registered).
Data adjusted based on phone interviews – to verify the data reported by partners for indicators Outcome 1 and 2 and Output 2.1 and 1.2, the MDT interviewed a purposeful ²⁴ sample of the farmers over the phone and adjusted the numbers based on their findings. The sample size was 471. Where the result from the interviews were more than 10% higher or lower than the number given in the partners' milestone reports, the result was adjusted by taking the midpoint between the two numbers.
Adjustments for Double counting: To ensure that farmers receiving services from more than one partner were not counted more than once, the MDT calculated the geographic overlap between partners in the same sector, and different sectors.

KNOWLEDGE MANAGEMENT AND COMMUNICATIONS

Results Sharing Series

The M&E team developed a Results Sharing Plan in November 2017 outlining the learning and knowledge management materials MADE would produce and disseminate up to February 2018.

²⁴ The sample was purposefully selected from lists of partners where divergence was found from record keeping; From this list, a random sample was taken.

The team coordinated inputs from across the Market Development and Cross-cutting teams to capture the results and lessons learnt from MADE's year 3 and 4 interventions in a series of knowledge products. This Plan included sector snapshots for each of the four target commodities; case studies on women's productivity in the rice sector and improved onion and vegetable seed varieties; a briefing note on tractor brokerage pilot; and a learning brief on women's economic empowerment. Owing to the extension proposal submission in Quarter 3 and programmatic activities required for the transition to the extension in Quarter 4, the finalisation of some of these products have been delayed. They will be completed in the near future.

Gender success

MADE in Year 4 continued its strong performance on reaching women SHFs with agricultural goods and services through promoting women SHFs as a market for partners and through partners own observation and evidence that women SHFs make good and trustworthy clients.

The MDT team during field visits observed a number of examples where women SHFs have advanced their farming operations through partners implementing MADE models such as the BGA, the gender training of trainers (TOT) pilot. As part of MADE's increased focus on communications and influencing in the extension, some of these observations from the field will be followed up and developed into case studies or other appropriate knowledge management materials.

Gender Training of Trainers (TOT) pilot

The ToT pilot combined gender sensitization of SHFs with training on topics such as GAP, quality management systems and financial management, to tackle the gender-based constraints to productivity enhancement. It was piloted with rice and groundnut SHFs in the Northern and Upper East regions, in partnership with six aggregators. Each aggregator selected 4 Field Officers for training as trainers. Each Field Officer had 5 groups of SHFs to train over a 12-week period (2 hours per week for each group) from March to June 2017, reaching over 2400 farmers (with an average group size of 20 people in each training session).

MADE evaluated the TOT and determined the following:

- The results suggest the ToT has improved overall yields per acre for both rice and groundnuts farmers. The effect is more profound in Upper East region than Northern region for groundnut, and the opposite for rice. The TOT increased yields for both men and women, but the effect was more significant for women than for men.
- The agronomic and quality aspects of the training were the most impactful in terms of improved knowledge and skills. GAPs and quality management practices were used more frequently among women and men farmers who participated in the ToT than among those who had not.
- There was some qualitative evidence of greater collaboration taking place as a result of the training, with participants expressing the need for men and women to work together which was a key take away from the training.
- There is evidence that the TOT increased men's positive attitudes towards women's role in the community but affect attitudes amongst women. In general, a shift in mindset appears to be occurring, with women being more involved in household decision making than in the past. This was attributed to gender sensitization from a range of sources, including the MADE ToT, other development programmes and mass media.

The evaluation indicated that MADE's model of gender focused ToT is effective in bringing about some improvements in productivity for women and improvements in quality of crops for both men and women. However the following changes are recommended to improve the model:

- The roles and expectations of the aggregators should be clarified right to enable them to appreciate what they need to undertake to improve gender awareness.
- It is important that the training is accompanied by the appropriate inputs and services to facilitate the application of the knowledge acquired.
- Aggregators should build strong, transparent commercial relationships with farmers, and pay cash on delivery, to ensure farmer loyalty.

SECTION 4. VALUE FOR MONEY (VFM)

The following results are based on the revised Vfm Framework as recommended from the previous Annual Review. The framework is currently under final consideration, however MADE has attempted to report against the latest version of the revised Vfm Framework to demonstrate the data available and possible uses and analysis of reporting against the revised framework.

Economy

As recommended, the Vfm economy section has been streamlined and indicators reduced. Benchmarks will be provided where possible – however management costs and committed intervention costs are not always readily available.

Table 3: Economy indicators

Economy indicators	Definition	Benchmark	Actual value (cumulative as of Y4Q4)
Cost ratios			
% management cost to overall programme cost	Total cumulative management fees / total fee + reimbursable costs to date	Sierra Leone SOBA: 9%	11%
% management cost to intervention funding cost	Total cumulative management fees / total committed intervention fund	n/a	15%
% of intervention fund committed to total intervention fund budget	Total intervention fund committed / total intervention fund budget	n/a	40%

Vfm good practice economy indicator Business Case indicator “The ability of the implementation structure to drive down implementation cost”: A key result from the first four years of implementation is that MADE spent only 68% of its reimbursable expense budget and therefore was able to submit a two-year extension where the reimbursable budget financial limit wasn’t required to be increased. (i.e. MADE will be able to utilise its underspend). This achievement is the result of multiple good practices which were delivered throughout the first four years including: consultant’s using their own vehicles for field visits and paying partners through mobile money transactions.

Efficiency

Efficiency is broken into four sections:

- Table 11: illustrates how efficient the management (i.e. management fee only) of the programme is in achieving result;
- Table 12: illustrate how efficient the programme is delivering (i.e. intervention fund expenditure only) outreach and results;
- Table 13: illustrates how efficient the programme is as a whole (i.e. total cumulative spend) at delivering results benchmarked against similar DFID Market Systems Development programmes
- Table 14: As a response to Annual Review Recommendations (R9) an indicator has been set to capture the market costs of services compared to the costs of services provided to SHFs through MADE’s integrated service model introduced by its partners.

Table 4: Efficiency indicators – management

Economy indicators	Definition	Y4
Business Case Indicator: Management costs for the intervention²⁵ (per producer²⁶ with improved market access)	Total cumulative management fees / number of market actors changing business practices (Output 1.1)	██████
Overhead (management cost) per beneficiary	Total cumulative management fees / Cumulative number of beneficiaries using new/improved inputs/services (Output 1.2)	██████

²⁵ “Intervention” for this indicator refers to the entire MADE approach (i.e. facilitation through agribusiness partners)

²⁶ “Producer” for this indicator refers to agribusiness partners only

Table 5: Efficiency indicators – intervention delivery

Efficiency indicator	Definition	Y3	Y4	
Intervention cost per market actor changing business practices**				
Groundnuts market	Total actual costs for market interventions / number of actors who changed business practices			
Rice market				
Onions market				
Vegetables market				
Efficiency indicator	Definition	Target	Reaching	Using
Intervention cost per beneficiary (Average cost per smallholder farmer accessing/using new or improved services)				
Groundnuts market	Total actual costs for market interventions /			
Rice market	1. Cumulative number of beneficiaries targeted			
Onions market	2. Cumulative number of beneficiaries reached			
Vegetables market	3. Cumulative number of beneficiaries using new/improved inputs/services (Output 1.2)			

Table 6: Efficiency indicators – full cost of delivery benchmarked

Economy indicators	% complete ²⁷	Cost per outreach	Cost per market actor change
Kenya: KMAP	29%		
Ethiopia: PEPE	61%		
Malawi: MOST (PSD component)	80%		
Nigeria: Niger Delta MADE	75%		
Sierra Leone SOBA	100%		
Ghana MADE	66%		

Table 7: Efficiency indicators – cost of inputs and services to SHFs

Efficiency indicator	Package	Number of partners	Average Cost of Package Provided by Partner
Rice and Groundnuts			
Full Package provided by partner	(plough 1 acre, seed 1 kg, fertiliser 1kg) provided by Partner	27	
Medium Package provided by Partner	(plough 1 acre, seed 1 kg) provided by Partner	3	
Basic Package provided by Partner	(plough 1 acre) provided by Partner	6	
Onions and Vegetables (assume that ploughing and extension information are held constant at each package)			
Full Package provided by partner	Improved seed (100 gram), fertiliser, pesticide/weedicides (1L)	20	
Medium Package provided by Partner	Improved seed (100 gram) fertiliser OR pesticide (0.67 L)	14	
Basic Package provided by Partner	Improved seed (100gram)	4	

²⁷ The has been expressed as % complete rather than latest date as reporting periods and availability of information across programmes don't always align

Cost of the different packages to SHFs can be compared to the cost of the package if the SHF had to procure the different inputs and services from market. By procuring inputs and services directly from a partner, the SHF avoids additional costs which include:

- 1) Searching and communications: costs associated with researching or asking on varieties of inputs and services
- 2) Opportunity: costs associated with time, where time is spent at the market rather than on their own field
- 3) Transportation: costs associated with traveling to the market to procure inputs and services

These costs are estimated to add an additional 17% mark-up to the cost of the packages in Table 13. As a next piece of analysis MADE can either compare the cost of packages provided to partners with crop budgets for model farms for the upcoming season or survey partners for costs of procuring inputs and services from the market.

Effectiveness

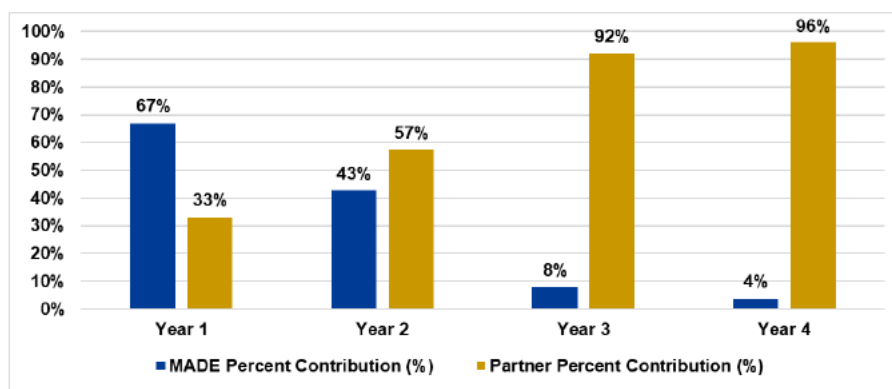
Effectiveness focus on key results for SHFs (yield and productivity increase and additional income) and for market actors (investment and firm growth and outreach).

Table 8: Effectiveness indicators

Effectiveness indicator	Markets	Yield Increase to date (per acre)
% increase in yields	<i>Groundnuts market</i>	60%
	<i>Rice market</i>	108%
	<i>Onions market</i>	29%
	<i>Vegetables market</i>	343%
Effectiveness indicator	Definition	Y4
Cost per £ of additional income generated	Total cumulative expenditure / Net income increase	██████
Business Case Indicator: Amount of additional resources leveraged from private-sector market actors within the markets being facilitated.	Total co-investment by MADE partners	██████
	Ratio of private capital (partners and farmers) leveraged per £1 MADE co-invested	12.6
Firm Growth (Outreach and value)	Outreach: Net number of firms (including-self-employed) with increased sales. ²⁸	55
	Value: Net annualised increase in sales amongst firms	██████

These indicators will be tracked over time to see if the trend continues positively as MADE begins its extension. A key indicator which has already been tracked is the change in the ratio of MADE co-investment to MADE partner investment year on year. An aspect of MADE's sustainability, partners have steadily increased their percentage of investment contribution to the MADE introduced models as illustrated in the figure below. Now in Year 4, the 68 partners invested ██████ of their own funds.

²⁸ Sustained increase in sales is when a business can demonstrate an increase to its turnover over a minimum of a 12-month period



Equity

MADE does not deliver gender targeted interventions as a market systems development programme. However there have been early indications and signs of women's economic empowerment. MADE has begun to research into what interventions promoted to date are contributing most to empowering women. Specific interventions targeting women will be promoted to partners who are willing and capable of investing into their female SHF out grower base and will be captured as a VFM indicator. The current indicators are based on proxy data (percentage of women using inputs and services to date). Increase in yields is only reporting against onions and vegetables due to no sufficient data for rice and groundnuts from the beginning of the MADE programme for these markets in Year 1 in 2013-14.

Table 9: Equity indicators – gender disaggregated

Effectiveness indicator	Definition	Y4
Total market spend per beneficiary (Average cost per smallholder farmer accessing/using new or improved services)	Expenditure of partners with women focused interventions / Cumulative number of female beneficiaries from particular partners using the new or improved input or service	
% increase in yields for women	<i>Onions market</i>	16%
	<i>Vegetables market</i>	365%

MADE works primarily in the three regions in the North, however also has a few partners starting in Year 4 from Brong Ahafo and Volta. Regions differ in terms of geography, crop preference, and demography. The table below demonstrates how those factors are affecting how the additional services and resources are driving down costs of inputs and business services for poor producers, across selected regions.

Table 10: Cost of inputs and services to SHFs – disaggregated by region

Package provided by Partner	Northern Region		Upper West		Upper East		Other (Brong Ahafo and Volta)	
	Number of partners	Cost (GHS)	Number of partners	Cost (GHS)	Number of partners	Cost (GHS)	Number of partners	Cost (GHS)
Rice and Groundnuts								
Full Package	19		5		3		n/a	
Medium Package	n/a		1		n/a		2	
Basic Package	6		n/a		n/a		n/a	
Onions and Vegetables								
Full Package	7		4		7		2	

Medium Package	4		2 (only veg)		6		2 (only veg)	
Basic Package	2		n/a		2		n/a	

SECTION 5. PROGRAMME MANAGEMENT

A key focus during the final quarter of Year 4 was the submission and approval of the MADE two-year no-cost extension.

Extension proposal

MADE was invited to submit a full proposal to extend the MADE programme for two additional years of implementation. A full technical and commercial proposal were submitted in early December. The MADE extension was approved by DFID in mid-January 2018.

Closedown and scale up processes developed

In September 2017, MADE designed action plans, particularly relating to contractual obligations, for both possible scenarios the closure or extension of the programme. the . Processes and timelines for all aspects of the programme from office rental to asset disposal were reviewed to ensure a smooth closedown or transition to extension. This included but was not limited to:

- Communication with landlord to ensure the office could be renewed in the case of a MADE extension
- Communication with all utility providers to ensure final outstanding bills would be paid in the case of closedown or contracts would be extended in the case of a MADE extension
- Communication with all insurance providers – asset, medical, vehicle – were renewed in the case of MADE extension
- Assets register verified; and strategy for disposal (which was to be consulted with DFID)
- Communication with all contracted technical service providers on last dates to submit reports and final invoices
- Communication with all MADE team members on final dates for invoices, handover of assets, and intellectual property in the case of closedown.
- Update of all finance, accounting, programme, grants and service provider manual and handbook in the case of extension

Team and Individual performance review (IPR) process

In late November 2017 MADE conducted a performance review of the overall team and performance reviews of performance every team member to objectively assess the suitability of existing MADE team members to fill roles in the proposed restructured team for the I extension. At the conclusion of the review process, MADE was still awaiting a decision on extension. Nathan issued letters of intent to secure the commitment of the staff assessed through the IPR to have the skills and experience to fill roles in the extension team.

As a result of these measures, all of the MADE staff selected for roles in the extension remained with the programme despite the uncertainty of the extension. This has ensured that MADE has retained staff selected to be key members of the extension Senior Management Team, the Team Leader, the Market Development Managers, and the Finance Manager. The experienced SMT has ensured the smooth transition to the extension. .

ANNEX 1: COMPLETE LIST OF RESULTS

Year 4 ADL strategies adopted and results achieved

<p>Sales agents model for making inputs readily available and accessible at vantage areas distant from retail outlets</p> <p>Promotion of diversification of improved inputs and service provision</p>	<ul style="list-style-type: none"> ○ 440 Sales agents²⁹ (372 male & 68 female) recruited and assigned to 392 sales points³⁰ created by the businesses. ○ 23,465 (9,056) leads generated³¹ as a result of the deployment of the sales agents contributing to a growing customer base for the businesses. ○ An inventory results on agro dealers' stock showed a dramatic increase in varied agricultural products valued at [REDACTED] following linkages established with input supplier companies. ○ Increased in varietal stock of vegetables seeds including novel products. ○ Availability and accessibility of a wide range of products offering customers the opportunity to opt for specific products based on individual' purchasing power and demand.
ADL demand generation and sales outreach strategies	<ul style="list-style-type: none"> ○ The 19 MADE Partners have collectively experienced an average percentage increase in sales revenue and gross profit of [REDACTED] and [REDACTED] respectively from the sale of agricultural inputs (including assorted vegetables seeds) to Northern Region SHFs in the 2017 growing season. This has resulted from <ul style="list-style-type: none"> - Co-investing with lead farmers and running model farmers independent of MADE. - Staging at least 3 different training events for their customers covering good agronomic practices, farm enterprise development, group formation and development, products and products use. There is growing evidence that farmers are now becoming familiar with the products introduced to the customers including storage, safety and handling - Diversifying their products portfolio into wide range of products to ensure continuous interaction with their customers. - Adopting agro input days and customer visitation at their farms to offer on-farm extension services; - Improved businesses transaction records, management of stock and supplies including day to day management of sales agents and officers. ○ 10 Partner agro-input dealers fully adopted the business logos (trade mark) and have begun using them on their official letterheads and product packs. ○ 12 agro-input dealers co-invested with MADE (investment ratio of 40:60) to produce total of 28,700 technical leaflets and 12,700 brochures on select thematic areas³². Customers of these businesses now have access to the technical data on correct use of agro-chemical inputs

²⁹ Sales agents are lead farmers recruited to man sales points by the businesses

³⁰ Sales points are common points of sales of agro inputs for customers where inputs are made available and accessible to customers within a particular geographic location.

³¹ A lead is a potential customer

³² Insects, pest & disease; cultivars', seed & planting information; seasonal, fertility & yield.

ANNEX 2: LIST OF INFORMAL RULES AND NORMS

Below is the full list and details of the informal rules and norms achieved by MADE in previous years :

1. Introduction of nonbinding agreements between MADE and its partners as well as between MADE partners and their suppliers/clients, in the form of Memoranda of Understanding (MoUs) outlining the terms and details of the understanding, including each parties' requirements and responsibilities;
2. Introduction of performance contracts supported with work plans and payment by results between aggregators and sub-facilitators/AEAs thereby improving the quality of results delivered by the sub-facilitators/AEAs and raising general awareness in MADE focus markets about the need for client/market responsiveness;
3. Promotion and support to major seed companies to use contracts to minimise abuse of supplier's credit by input dealers enabling the seed companies to reward good performing input dealers with more supplier's credit and discounts.
4. Introduction of grades and standards related to aflatoxin contamination in groundnuts prompting SHFs to pay more attention to food safety and risk to their own health.
5. Introduction of grades and standards in rice value chain aimed at meeting Avnash and other mills needs for paddy with the right moisture content. Fostering product differentiation by quality and price.
6. Introduction of customer/client (mostly smallholder farmers - SHFs - but also service providers) satisfaction surveys to aggregators and input dealers, reinforcing the need for market responsiveness.
7. Introduction of out-grower scheme management and SHF based produce aggregation models to improve commercial relationships and trust between SHFs and aggregators, i.e., moving them from transactional to longer-term relationships, increasing transparency and trust and minimising challenges such as side selling.
8. Supporting partners to raise awareness about and to address food safety (e.g., aflatoxins), concerns and risks associated with agro-chemical (pesticides) use/abuse particularly in the onion and vegetable markets, leading to the emergence of food safety and environmental hazards and health risk norms;
9. Promotion of self-regulation through peer influence/reviews through MADE created or induced platforms/networks, e.g., BGA business learning groups, aggregators workshops/networks, SHF groups/networks, etc.;
10. Encouraging partners who provide input credit, for instance, to leverage smallholder farmer networks/groups as cross/peer group collateral. This is beginning to reduce default rates/"bad debts";
11. Promoting increased awareness of and information in MADE focused markets on expected market actors' behaviours, GAP protocols including effects of agriculture on the environment and human health, prices and other market trends, product quality requirements, etc., leading to more open, transparent, trustful, etc., market systems;
12. Introduction of a weighted screening process during partner identification and selection to ensure MADE engagement/interventions with the private sector do not lead to market distortions, are equitable and deliver sustainable development outcomes

ANNEX 3: UPDATED RISK MATRIX

See attached annex excel