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INDEPENDENT REVIEW OF DFID NIGERIA'S MARKET DEVELOPMENT IN THE NIGER DELTA PROJECT (MADE) PHASE 1 AND 2 WITH REFERENCE TO OTHER M4P PROJECTS IN NIGERIA

FINAL REPORT

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ACRONYMS

AAER	Adopt-Adapt- Expand -Respond
ASP	Aquaculture Service Providers
BBG	Bulk Buyer Groups
BDS	Business Development Services
BMO	Business Membership Organisation
BMP	Best Management Practices
CPP	Crop Protection Product
DAC	Development Assistance Committee
DAI	Development Alternatives Inc
DFID	Department for International Development
ENABLE	Enhancing Nigerian Advocacy for a Better Business Environment
ESIP	Edo State Investment Portfolio
FIIN	Farmers Investment Incubator Network
FMCG	Fast Moving Consumer Goods
GAP	Good Agronomic Practices
GEMS1	Growth and Employment in States Programme - Meat and Leather Industry
GEMS4	Growth and Employment in States Programme - Wholesale and Retail
HQCF	High Quality Cassava Flour
ICT	Information and Communication Technologies
IMC	International Management Consulting
KANL	Kzanug Ahuaz Nigeria Limited
LAPDO	Life & Peace Development Organization
LGAs	Local Government Agencies
M4P	Market Systems Development
MADE	Market Development in the Niger Delta
MAH	Mechanical Adapted Harvester
MASPs	Master Aquaculture Service Providers
M&E	Monitoring & Evaluation
MRM	Monitoring and Results Measurement
MVSE	Master Village Seed Entrepreneurs
NAEC	Nigerian Agricultural Enterprise Curriculum
NAIC	Net Attributable Income Change
NCD	Newcastle's Disease
NIOMR	Nigerian Institute for Oceanography and Marine Research
NVRI	Nigerian Veterinary Research Institute
OECD	Organisation for Economic Cooperation and Development
PIND	Partnership Initiatives in the Niger Delta

SHERDA	Self Help & Rural Development Association
SME	Small and Medium Enterprise
SSP	Spray Service Provider
SSPE	Small-Scale Processing Equipment
TAG	Technology Adoption Grants
TOR	Terms of Reference
TOT	Training of Trainers
UNDP	United Nation Development Programme
VFM	Value For Money
VLDs	Village Level Dealers
VPC	Veterinary Pharmaceutical Company
VSE	Village Seed Entrepreneurs
YAGEP	Youth Agricultural Entrepreneurs Programme

EXECUTIVE SUMMARY

This report presents the findings and recommendations of the independent review of the Market Development in the Niger Delta (MADE) programme funded by the Department of International Development (DFID) of the United Kingdom. The first phase of the programme was launched in September 2013 and its second phase ends in February 2020. MADE applies a market systems approach to increase the incomes of at least 306,000 poor men and women in selected non-oil sectors (namely palm oil, poultry, fisheries, cassava, and agricultural inputs) through: i) improved access to inputs, products, services and technologies; ii) changed behaviour of stakeholders in the way they perceive and work with the poor; and iii) new economic opportunities for potential victims of trafficking.

The overall focus of the review is to determine the extent to which MADE has achieved its objectives and contributed to the body of knowledge on market systems programmes, particularly those implemented in conflict-prone regions. Given its qualitative nature, this review has relied heavily on data captured through over 70 key informant interviews and focus group discussions with relevant stakeholders, discussions with the MADE team, and the reports and documents produced by the programme. It has assessed interventions within MADE's two components (market development component and Edo State Investment Portfolio (ESIP) component) and reviewed cross cutting aspects such as gender, monitoring and evaluation, influencing of stakeholders and collaboration with other programmes.

The review has found that MADE has met most of its logframe targets[1] in a very difficult operating environment. It has reached over 485,000 beneficiaries[2] and changed the attitudes of partners and co-facilitators. MADE has intervened in all nine Niger Delta states although its outreach was highest in Cross Rivers, Delta, Abia, Akwa Ibom and Edo. In line with logframe targets, nearly half of MADE beneficiaries are women.

A closer look at the numbers shows that close to 75% of the programme's outreach results come from the agricultural inputs and cassava market interventions, which also generated around 86% of the Net Attributable Income Change (NAIC) generated by the programme. Interventions in other markets such as fisheries, however, have had a lower outreach but have been able to generate more elements of systemic change in the market

Overall, MADE's market development component has successfully introduced innovative business models and generated instances of systemic change in five markets: agricultural inputs, cassava, poultry, fisheries and palm oil. In the agricultural inputs and cassava sectors, lead firms have adopted and adapted some of the MADE facilitated models and other firms have entered the market after seeing that these were indeed profitable markets. In the poultry and aquaculture interventions, the network and outreach of para-vets has been successfully expanding as they found that engaging with farmers as service providers and becoming dealers for input companies was a profitable business. These service providers have now formalised their businesses, created partnerships and expanded

1 The review took place when the programme still had 4 months left of operations. In this period, it is likely that the programme has been able to achieve all the targets.in

2 This figure needs to be confirmed following the comments in Section 7 regarding outreach calculations. However, even applying different outreach definitions, the achievements of the programme will still remain large.

their businesses into other related sectors.

The Edo State Investment Portfolio (ESIP) component was an innovative intervention aimed at creating specific opportunities for potential victims of human trafficking and modern day slavery. To achieve this, ESIP aimed to work closely with the Edo State Government and private sector "lead firms" interested in investing and/or expanding their operations in Edo state in seven sectors: apiculture, feed finishing, entertainment, waste to wealth, micro-retailing, access to market and skills development. Although most outreach targets have been achieved, the implementation period was too short, and interventions are barely ending the pilot phase. A solid exit strategy is therefore required to try to consolidate these interventions, as otherwise many are likely to fail.

MADE has been able to effectively use a range of instruments to achieve its objectives. Output based grants have been successfully used to de-risk investment of private sector companies into new geographic areas and new client segments, while technology adoption grants have been used to stimulate the demand of new technologies and kick start the market for some technologies. It has also worked collaboratively with another DFID funded programme operating in Nigeria - Propcom Mai-karfi, and a

Chevron Funded programme called Partnership Initiatives in the Niger Delta (PIND), and has been able to embed the market systems approach in a number of firms and service providers operating in the region, which are now applying this approach to their regular programming.

The programme has implemented the DCED standard to support its operations and used it as the overall framework for M&E purposes. It has also experimented with some innovative data gathering processes and has been able to collect a wealth of data. However, MADE's evaluation and survey methodologies are weak and its quantitative results are less robust than what they could have been.

The findings have allowed the review team to develop specific recommendations for future DFID programming. These include:

- The market systems approach has proven to be a viable approach for intervening in conflict affected environments.
- Achieving systemic change and sustainable impact takes time in the case of market systems programmes, and these time-lags need to be taken into account when designing DFID programmes.
- Logframe targets should not only focus on reaching large numbers of beneficiaries but also focus on the quality and sustainability of the interventions and results.
- Developing a portfolio of interventions and accepting the risk to fail (and therefore the need to adapt its interventions) is key to ensure overall success of any market systems programme.
- The use of grants or subsidies is fully justified when designing a market systems programme and should be a tool made available to the implementers.
- Embedding the market systems approach in local institutions (including service providers) should be part of the strategy for market development programmes.
- Collaboration between development programmes adds value and should be incentivised as it allows for increased programme efficiency.

- Development programmes generate a wealth of information in the form of reports, case studies, learning papers that should remain accessible after the programme ends to practitioners, researchers, government, donors and other stakeholders.

1. INTRODUCTION

1.1 Objectives

The Market Development in the Niger Delta (MADE) programme uses a market systems approach to generate wealth creation and employment in the Niger Delta's non-oil economy. MADE supports the palm oil, poultry, fisheries, cassava, and agricultural inputs. In its second phase, MADE has added a special focus on supporting investment and growth in sectors that are seen as 'aspirational' and attractive to potential victims of trafficking in Edo State, and thus reduce drivers of emigration. MADE has therefore expanded its interventions in the areas of ICT, hospitality and creative industries, which were chosen as alternatives to individuals who might be attracted to human traffickers' offers.

The ambitious goal of the programme is to increase the incomes of at least 306,000 poor men and women. The expected outputs for MADE include: i) improved access to inputs, products, services and technologies; ii) changed behaviour of relevant stakeholders in the way they perceive and work with the poor; and iii) new economic opportunities for potential victims of trafficking.

The expected outcomes are: i) better performing poor small-scale farmers and entrepreneurs in target markets; and ii) increased growth in sectors considered 'aspirational' by potential victims of trafficking.

The specific objectives of the review are:

- Assess performance of MADE I and MADE II with respect to its Theory of Change and logframe indicators.
- Assess the overall impact of MADE, and particularly if it has been able to generate sustainable, systemic change and contribute to changes in behaviour of relevant stakeholders.
- Identify and capture lessons learned during the design and implementation of the programme (including comparing MADE with Propcom Mai-karfi and another market systems programme in Nigeria) to support DFID programming in conflict-prone regions.

The review of MADE took place in two differentiated phases. The first phase focused on reviewing the results of MADE I (September 2013 to February 2018) and took place in June-August 2019. The second phase of the review took place in November-December 2019 and assessed the results of MADE II (March 2018 to February 2020) completing the overall review of the MADE programme.

The report is organised in eight sections. Section 1 introduces the objectives of the report, methodology and context where the programme operates. Section 2 presents the results of MADE at the programme level (by component). Section 3 presents and assesses the interventions implemented by MADE in the five markets of the market development component, while Section 4 presents the findings of the interventions in the Edo State Investment Portfolio (ESIP) component. Section 5 discusses the findings in four cross cutting areas (gender, influencing of stakeholders, climate change & environment, collaboration with other development programmes). Section 6 compares MADE interventions with those of Propcom[3] while Section 7 discusses the findings of MADE's monitoring and

[3] Some comparisons between MADE and Propcom are made in other places throughout the report. All references to Propcom draw on evidence presented in the final evaluation report. Upper Quartile, Independent Evaluation for Promoting Pro-poor Opportunities in Commodities and Service Markets (Propcom) Mai-karfi Programme, Northern Nigeria, October 2018. Available on DevTracker - http://tiny.cc/b1vvhz

evaluation systems. Finally, section 8 concludes.

1.2 Methodology

As per the terms of reference (ToR) presented in Annex C, the review of the MADE programme took place in two phases. Phase I took place over the period June-August 2019 and its main objectives included:

- Develop a good understanding of the objectives and achievements of MADE I, including their alignment with MADE's I Theory of Change.
- Assess the progress of interventions implemented during MADE I in five sectors (fisheries, poultry, palm oil, agricultural inputs and cassava) and two cross cutting areas (gender, influencing of stakeholders).
- Evaluate the strength of MADE's quantitative results (including achievements against logframe) and assess its monitoring and evaluation systems.
- Identify areas for further in-depth analysis that would be assessed during the second phase of the review.
- Identify and capture lessons learned during the design and implementation of the programme (including comparing MADE with Propcom Mai-karfi, another market systems programme in Nigeria) to support DFID programming in conflict-prone regions.

During the second phase of the review, which took place between November-December 2019, the focus of the review team was to:

- Assess the overall impact of the market development component of MADE, and particularly if it has been able to generate sustainable, systemic change and contribute to changes in behaviour of relevant stakeholders.
- Assess the progress of the Edo State Investment Portfolio component of MADE II with respect to its theory of change and logframe indicators.
- Assess the progress of MADE in the cross-cutting areas of environment & climate change and VFM.
- In depth review of MADE's monitoring and evaluation systems, including data quality assurance.
- Identify and capture lessons learned during the design and implementation of the programme (including benchmarking MADE with other market systems programmes, including Propcom in Nigeria) to support DFID programming in conflict-prone regions.

The same approach and methodology were used to undertake both phases of the review. It included three steps.

STEP 1: Literature review and preparation of field visits

Activities under step 1 were home based and included the following:

- Review of programme documents, including the business case (and its addendum), sector strategies, intervention plans, gender strategy, case studies, annual and quarterly reports.
- Review programme monitoring and impact data, including programme logframe, intervention monitoring tools, M&E manuals, evaluation/impact reports, and VFM strategy.
- Skype conversations with DAI's MADE technical advisor, MADE team leader and other MADE relevant staff.
- Selection and identification of key partners/stakeholders/beneficiaries to be interviewed during the field visits. The criteria for selection included:
    - Stakeholders located along the value chain, including producers, aggregators, off-takers and providers of services
    - Balanced number of interviewees by sector
    - Stakeholders located in accessible locations (due to security considerations) or were able to travel to meet the review team in the capital of Edo state

  The MADE team initially provided a long list of stakeholders and the review team then identified a short list of stakeholders for interview.
- Design of semi-structured questionnaire that addressed the questions identified in the MADE review inception report[4].
- Preparation and implementation of detailed fieldwork plan with support from the local consultant and MADE staff.

STEP 2: Field visits

Step 2 comprised the field visits to the programme offices and intervention locations. During the two field visits, the review team undertook more than 80 meetings through:

- 70 face to face interviews with key sector stakeholders in all five MADE markets and all seven ESIP sectors. The list of stakeholders included lead firms, commercial partners, co-facilitators, and other development programmes. The final number of interviews undertaken was in line with the anticipated number and allowed for a balanced number of interviews in each sector. See Annex A for the list of stakeholders interviewed.
- Four focus group discussions with direct farmer beneficiaries in poultry, palm oil, cassava and feed finishing sectors.
- In depth engagement with the MADE team in Port Harcourt and Benin City, including face to face and workshop-style discussions with the team leader, intervention managers, and M&E manager.
- Deep-dive sessions with M&E team to adequately understand the approach to monitoring, evaluation and learning, as well as do spot checks on the data.
- De-briefing on key findings to the MADE team in Port Harcourt/Benin City and DFID team in Abuja.

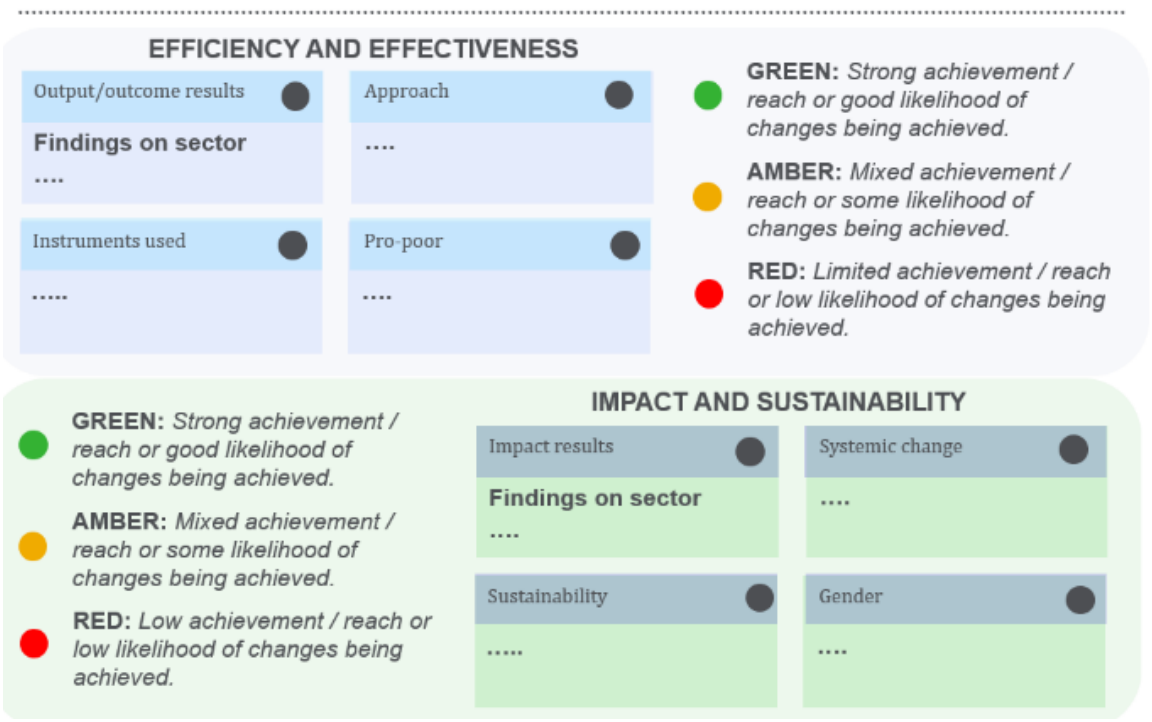
[4] Independent Review of DFID Nigeria's Market Development in the Niger Delta (MADE) - Inception Report. 26 June 2019.

STEP 3: Systematisation of information and report writing

Step 3 included the process and systematisation of all the information gathered from the field visits, review of programme documents and other documents identified during the field visits, and report writing. It included the following activities:

- Processing of information gathered in the field using the rapid-assessment tool developed for the purposes of the review (see Table 1). This allowed for a quick on-the-field assessment of progress and allowed the review team to identify any information gaps that needed to be addressed.

Table 1. RAG system for rapid-assessment



- Review of additional literature and sources of information gathered during the field visits from either the MADE team or other relevant stakeholders.
- Requests to the MADE team to provide data and information gaps identified during the preparation of the reports.
- Triangulation of data among the different sources of information to ensure validity of results identified.
- Preparation of the reports (i.e. report writing).

1.3 Limitations to this study

In line with the TOR of this assignment, the nature of this review is more qualitative than quantitative. The review team has relied heavily on data captured through key informant interviews and focus group discussions with relevant stakeholders, discussions with the MADE team, and the reports and documents produced by the programme. This has allowed the review team to get a good understanding of what the programme has done, how it has done it and its achievements.

The review team has not collected any primary data during this assignment and all the quantitative data presented in this report has been provided by the MADE programme. The review team has taken all this data at face value despite the issues raised in Section 7 of this report.

A key constraint to assessing the impact of the ESIP component of MADE is that this component only started in April 2018 (less than two years ago). This means that several of its interventions are still ongoing, some are just starting, and others will outlive the end of the programme. In addition, some of the intended outcomes and impacts include behavioural changes that are likely to take even longer to occur.

Finally, because of time, distance and security limitations, the review team was only able to meet with a selected number of stakeholders. For example, no riverine communities were visited, and a number of meetings took place in urban centres rather than in the rural areas were the businesses were located. Still, the review team was able to undertake most of the desired field consultations and remains confident that it has been able to meet the ToRs fully and that its findings can be substantiated.

1.4 Context

The Niger Delta region consists of nine of Nigeria's thirty-six states, accounting for 12% of the total area of the country and is home to 31 million people or 24% of Nigeria's total population, over 90% of Nigeria's proven gas and oil reserves and the world's third largest wetland.[5] Most of Nigeria's oil comes from the Niger Delta and oil production accounts for 86 % of national export revenues and 75% of the total state revenue.[6]

Agriculture and fishing represent 44% of total employment in the Niger Delta region.[7] The region, characterised by its largely rural economies, has an abundance of arable land and much of the region's population works in agriculture. It remains one of the most fertile in the country, producing a wide range of staple and cash crops.[8] The region has comparative advantage in cassava and cocoa, and accounts for 50% of the country's palm oil production. The Niger Delta also has the advantage of comparatively high levels of literacy and educations, and an abundant labour force.[9]

Despite these considerable natural resources, the overwhelming reliance on oil as a source of public finance, has meant that securing access and control over an increasing proportion of oil revenue has become the main locus of political struggle for stakeholders at all levels and has led to calls for "resource control" in the Niger Delta, which have at times resulted in violence.[10]

The volatility of the region is further compounded by a sense of injustice driven by the large numbers of people living in poverty, levels of inequality, subjective assessments of personal deprivation, and relative underdevelopment in the national context.[11] Moreover, destruction of the environment through oil spills and gas flaring has made the poorest communities vulnerable (e.g. fishing and

5 The World Bank, "Republic of Nigeria Niger Delta Social and Conflict Analysis" May, 2008 and Onyeka Ojei, "Pivoting Away From Oil: A Sector Analysis of Nigeria's Economy Aimed at Achieving Diversification and Inclusive Growth." Graduate School of Public and International Affairs - University of Ottawa, June 21, 2017 and https://reliefweb.int/report/niger/niger-delta-quarterly-conflict-trends-july-september-2016
6 Accessed on 29 November at https://www.opec.org/opec_web/en/about_us/167.htm
7 Nextier Advisory, "Markets for Development in the Niger Delta - Recommendations for the Way Forward." December 2015
8 MADE Nigeria Business Case, DFID, June 2014.
9 UNDP – Nigeria 2016 Annual Report
10 Securing development and peace in the niger deltaNiger Delta: a social and conflict analysis for change/ by Paul Francis, Deirdre LaPin, Paula Rossiasco. Copyright by the Woodrow Wilson International Center for Scholars Printed in the United States of America. 2011.
11 Regional Inequality and the Niger Delta. ODI Policy Brief No 5. Prepared for the World Development Report 2009

agriculture have been affected by pollution related to oil extraction). Consequently, unemployment and underemployment rates are amongst the highest in the core oil producing states of the Niger Delta than in any other part of Nigeria, and they are more pronounced in urban areas.[12]

This mix of economic, social, political and environmental factors makes the region "a place of frustrated expectations and deep-rooted mistrust where unprecedented restiveness at times erupts in violence"[13]. This generates frustration and indignation in the region as people feel that "they ought to have done far better"[14] and a sense of entitlement is present.

Source: UNDP Nigeria 2016 Annual

Social instability (and lack of opportunities for youth), poor local government, competition for economic resources and environmental degradation all affect the ability of the poor to participate in and benefit from economic growth. Endemic corruption, patronage (from multinational oil companies) and weak governance results in poor quality of services, particularly infrastructure. It has also created a difficult business enabling environment for the private sector and has seriously hindered the development of the non-oil related private sector in the region.

In addition, the difficult macroeconomic environment, particularly in the period 2014 to 2017, has also generated significant variability on the way markets operate and the incentives of those participating in these markets. The devaluation of the Naira and the trade restriction policies that followed suit had significant impact (both for good and for bad) on MADE markets and created very complex dynamics in these markets. For example, MADE's analysis of the impact of the devaluation on the poultry market[15] indicated that:

The devaluation, which has caused significant price increases of vaccines, resulted in a drop-in demand for preventive vaccines and a constant demand for treatment vaccines, as poultry farms adjusted to the increased costs of production. Although this protects margins for pharmaceutical companies, it exposes poultry farms to viral attacks and losses.

While the economy began to stabilise in 2017 and resume a positive growth trend, growth has continued to be mainly jobless. As a result, unemployment and underemployment levels have increased since 2011 (due to the recession), particularly for women and youth.[16]

12 Labor Force Statistics - Volume 2: Unemployment and Underemployment by State (Q3 2018)
13 Benedict, Orhioghene (2011). *Breaking Barriers to Transformation of the Niger Delta Region of Nigeria: A Human Development Paradigm*. Journal of Sustainable Development Vol. 4, No. 3.
14 Idem
15 A Report on the Effect of the Naira's Devaluation on Agricultural Value Chains in the Niger Delta. PIND & MADE, April 2017
16 Kirsty Milward and Olayide Adesanya. (2019) Mid-term Evaluation Report of the Niger Delta Youth Employment Pathways Project, report by the independent evaluators, 29 April 2019, PIND Foundation Nigeria.

2. RESULTS AT PROGRAMME LEVEL

The business case for MADE I stated that programme seeked to increase the income of at least 150,000 poor men and women in the Niger Delta (of whom at least 50% will be women) by promoting a market development programme that supports the non-oil economy by stimulating sustainable, pro-poor growth in selected rural markets; and improving the position of poor men and women in these markets, to make them more inclusive for poor people.

In MADE II, DFID aimed to consolidate and increase the impact achieved in MADE I using a market systems approach and create specific opportunities for potential victims of human trafficking and modern day slavery. Specifically, the MADE II business case[17] defines two objectives:

1. Doubling project results, including increasing the incomes of an additional 150,000 people.
2. Generating 'aspirational' opportunities for those at risk of trafficking, with a target of increasing incomes or providing livelihood opportunities to 30,000 people (as part of the target to add 150,000 incomes increases) within at-risk geographies and demographic groups.[18]

In line with these objectives, the aggregate MADE logframe[19] targets and results achieved by the programme as of September 2019 are presented in Table 2. It shows that MADE has already met seven out of nine aggregated output and outcome targets for the end of the programme, and is likely to meet its impact targets by the end of the programme (data provided is only to September 2019, as the programme still had 5 months of operations left).[20]

The component-specific results are further assessed in the next two subsections.

Table 2. Aggregate MADE I and II logframe[21]

Indicator #		MADE I results	MADE II results (as of 09/19)	MADE aggregate results	MADE aggregate target
Impact 1	Number of small/medium-scale farmers and entrepreneurs with at least 15% increased income	150,233 (68,582)	123,648 (58,323)	273,881 (126,905)	306,445 (153,222)
Impact 2	Net annual additional income change (NAIC) amongst small/medium-scale farmers and entrepreneurs (GBP)	£17,960,106 (7,982,860)	£11,947,731 (£4,815,646)	£29,907,837 (£12,798,506)	£30,464,504 (£10,180,782)
Outcome 1.1	Number of small/medium-scale farmers and entrepreneurs that record an increase in yields/productivity and sales	192,539 (85,935)	170,177 (92,387)	362,716 (178,322)	340,494 (170,247)
Outcome 1.2	Number of small/medium-scale farmers and entrepreneurs that make changes in their farming or business practices	236,779 (110,586)	205,444 (101,951)	442,223 (212,538)	402,309 (201,154)

17 Addendum to MADE Business Case. DFID.
18 This target was recently reduced to 16,000 people following a formal request by the programme.
19 For MADE I - MADE I Logframe (revised January 2017 version) and for MADE II – MADE II logframe proposed revision (dated 8 Oct 2019)
20 Data presented in this table has been provided by the programme and has not been independently collected by the review team. The review team has raised some concerns on the quality of the data as presented in Section 7. The results presented in this table might need to be adjusted if the MADE team applies some of the recommendations presented in this report.
21 Data provided by the programme. Source: MADE I & II results – outreach to impact (5-12-19)REVISED

Outcome 2.1*	Total investment in sectors considered 'aspirational' by potential victims of trafficking		£7,432,359		£10,00,000
Output 1.1	Number of small/medium-scale farmers and entrepreneurs who are assisted to access new and/or improved inputs, products, services, and technologies	249,399 (129,787)	236,534 (116,314)	485,933 (246,101)	473,375 (236,688)
Output 1.2	Number of lead firms investing in MADE piloted innovations	25	11	36	35
Output 1.3	Number of service providers and entrepreneurs investing in MADE piloted markets	518	955	1,473	900
Output 2.1	Number of investors adopting additional pro-poor market development approaches	12	9	21	24
Output 2.2	Number of development agencies and NGOs influenced to implement additional market development interventions that attribute to the programme	9	11	20	19
Output 3.1*	Number of trafficking susceptible farmers and entrepreneurs who access new and/or improved inputs, products, services, and technologies (cumulative direct and indirect) in aspirational sectors (in Edo and Delta State)		24,533 (12,004)		30,000 (15,000)
Output 3.2*	Number of lead firms investing[4] in MADE piloted innovations (Cumulative of Direct and Indirect) in Edo - Delta		9		9

Note: In parentesi, target for female beneficiaries.

**These are ESIP-only related indicators.*

2.1 Market development component

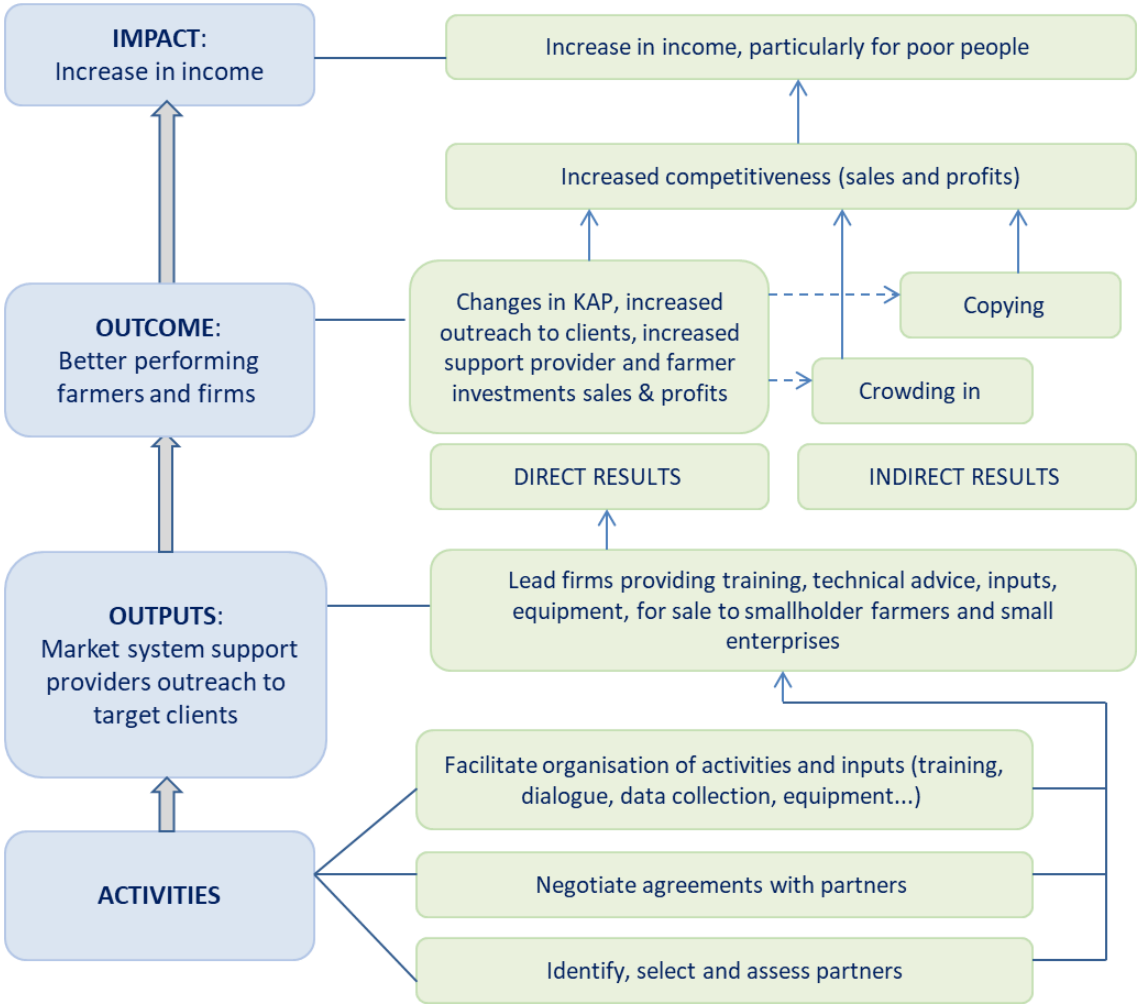
MADE used the theory of change presented in the business case to guide the design and implementation of its interventions and generate the desired change in the market (see Figure 1). MADE's direct interventions focused on influencing lead firms to invest in the five target markets, who then collaborate with local service providers to reach smallholder farmers and entrepreneurs in target markets; improving their access to new and/or improved inputs, products, services and technologies. The increased access allows smallholder farmers and entrepreneurs to adopt some of these inputs, products, services or technologies, which then results in increased producitivity that leads to increased incomes. During this process, other "competitor" firms are able to see that there is profit to be made by entering that market, so they decide to "copy" the business model (or some aspects of it), ultimately increasing access for smallholder farmers and entrepreneurs.

The review shows that results and achievements of the programme seem to have mostly ocurred along the direct and indirect paths anticipated by the programme's theory of change. Specific examples on how the theory of change has worked for each of the five markets are presented in section 3.

Through the direct and indirect pathways, MADE has been able to meet all of its output and outcome targets for the market development component. And although as of September 2019, MADE has not reached its end-of-programme impact numbers, the programme expects that it will be able to do so in the remaining five months.

The analysis of the logframe data shows that the two year extension of the market development component of MADE has allowed the programme to effectively leverage the investments of MADE I and, at the time of this review, nearly "double the income impact and other measured results of the project in half the time, and at half the cost, of the original project"[22].

Figure 1. Theory of change for market development component



This has been possible because during the Phase II of MADE, the team had focused its efforts in those markets/interventions that had most potential for achieving systemic change. For example, in the agricultural inputs and cassava good agronomic practices (GAP) interventions, lead firms have adopted and adapted some of the MADE facilitated models and other firms have entered the market after seeing that these were indeed profitable markets. Also, in the poultry and aquaculture interventions, the network and outreach of para-vets has been successfully expanding as they found that engaging

22 MADE Business Case Addendum.

with farmers as service providers and becoming dealers for input companies was a profitable business.

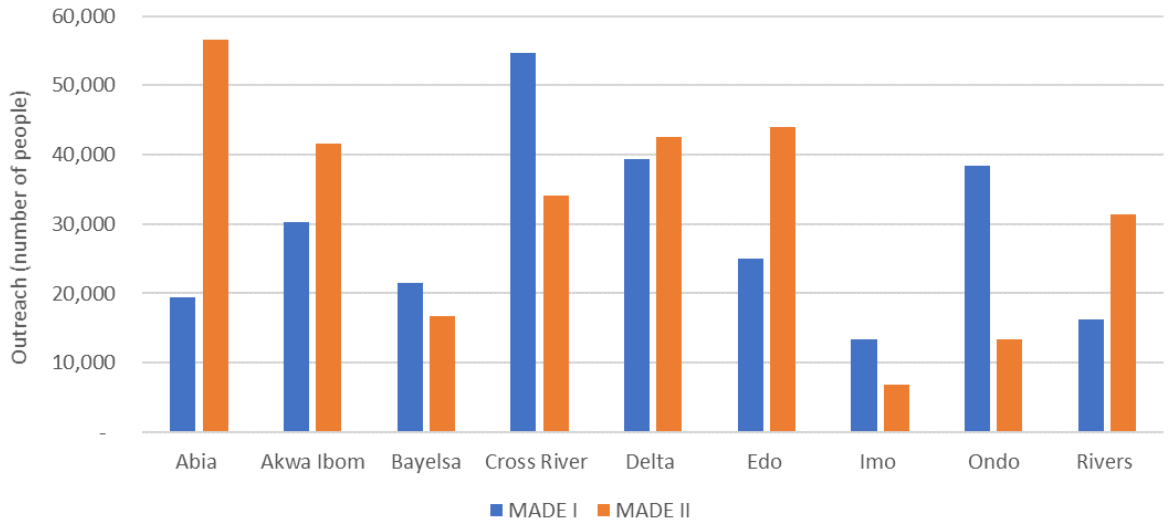
These findings suggest, as indicated already in the interim review report[23], that the duration of market systems programmes should be longer than other more traditional programmes to ensure that there is enough time to sustain the "crowding in" phase of the interventions and reap the full benefits. This is particularly true in the case of thinner markets, where change is likely to take even longer as there are limited numbers of investors and entrepreneurial firms within the economy.[24]

Propcom comparison – Duration of market development programmes

A similar finding was reflected in the evaluation of Propcom especially regarding the mechanisation (tractor) and input (fertiliser) value chains, both legacy markets from Propcom 1, which had grown exponentially in the second phase of Propcom. They accounted for over 80% of the programme beneficiaries and for over 60% of the programme's female beneficiaries. The findings from both programmes speak to the much-vaunted market development "hockey stick" effect over time, where markets reach exponentially larger numbers of clients over longer periods of time.

Another objective of the extension of the market development component was to deliver a higher proportion of these results in the four frontline states of Bayelsa, Delta, Rivers and Akwa Ibom.[25] Figure 2 shows MADE I and MADE II outreach by region and how outreach numbers were larger in all four frontline states during MADE II.

Figure 2. Outreach by region in MADE I and MADE II



Source: MADE programme data. File: MADE I & II outreach by region and market (14-12-19)

2.2 ESIP component

ESIP's theory of change (see Figure 2) is designed to address market system strengths and weaknesses in a slightly different manner. The aim is to incentivise private sector partners, who have already shown interest in either entering or expanding their operations in Edo and Delta states, to either directly or indirectly invest in the pre-selected sectors considered to have the best growth potential as well as being seen as aspirational by the target audience of vulnerable women and youth. ESIP will

[23] Independent Review of DFID Nigeria's MADE Interim Report. August 2019.
[24] See https://beamexchange.org/guidance/intervention-stages/thin-markets/ for more information on the facilitative approach in thin markets.
[25] The four frontline states are the states with the highest crime rates and are the most difficult region for large private companies coming from outside of the region to operate within. Source: MADE II Draft Proposal (final draft Jan 2018)

also work in changing local organisations' communication approaches when targeting the susceptible population, trying to improve (and increase) the messaging across the state, and country, about the negative aspects of human trafficking. This will:

- Influence private sector partners (lead firms and/or service providers) who will become more sensitive to the circumstances and needs of women and youth that are more susceptible to human trafficking and the opportunities this ready and willing workforce presents.
- Proof to the vulnerable women and youth the concept that one does not have to emigrate to be gainfully employed, improve income and quality of life. This would bring about behavioural change towards migration, reducing its attractiveness and ultimately reducing the incidence rate of human trafficking.

Unfortunately, it is too early to determine the validity of ESIP's theory of change as most interventions are still at the pilot stage (the ESIP component only started in May 2018[26]) and there are no instances of impact at the time the review took place. Despite this limitation, the quantitative results shown in Table 2 indicate that ESIP is close to achieving all ESIP-only output and outcome indicators. At the output level (outputs 3.1 and 3.2), ESIP has so far been able to attract nine firms to invest in Edo State (meeting the logframe target for the end of the programme) and has given access to over 24,000 trafficking susceptible farmers and entrepreneurs in aspirational sectors. The programme expects to be able to reach the 30,000 end of programme target in the last 5 months of the programme.

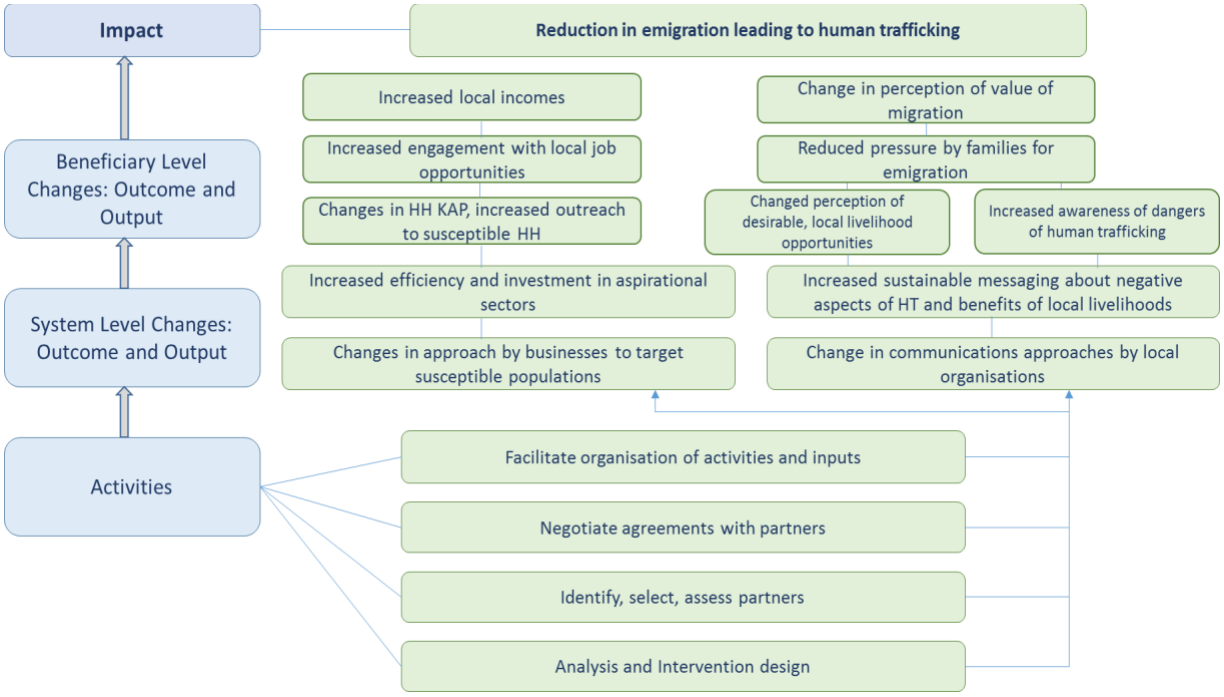
At the outcome level (outcome 2.1) ESIP has facilitated close to GBP 7.5m of new investment in sectors considered 'aspirational' by potential victims of trafficking (end of programme target is GBP 10m). As of September 2019, this investment comes from lead firms and service providers in the form of cost of operations, building a factory, purchase of land, building of animal ranch, rent, cold storage, waived fees for training of farmers, development of curriculum, app development, and offtake of produce to financing outgrowers' scheme.[27] A significant part of this figure (slightly over £2.5 million), however, comes from the programme's attribution of 30% of Okomu's £8.5 million invested in expanding their palm oil processing capacity.

The (so far limited) achievements of the ESIP component should be put into perspective. ESIP aims to operate in a challenging environment (including areas with security concerns), to address a complex cohort of the population (i.e. potential victims of human trafficking), and in a limited period (the overall duration of the component, including the design and implementation phases, was only two years).

Given these challenges, the programme seems to have progressed steadily and has identified a few interventions that have the potential to contribute to changes in the markets. Further analysis of these interventions is presented in Section 4.

[26] See https://www.contractsfinder.service.gov.uk/Notice/48ee3b62-9518-4bb0-a5d3-03fb9e6dace5.
[27] The breakdown of how these investment figures were calculated were not shared with the review team.

Figure 3. Theory of change for ESIP component



2.3 Value for money

MADE has been capturing VFM indicators at the economy, efficiency, effectiveness and equity levels as detailed in its business case. These indicators are presented in Table 3.

As expected, all indicators show a positive trend as the programme advances. Cost per farmer indicators get lower year after year from an efficiency and effectiveness perspective as the number of programme beneficiaries increases exponentially when interventions reach their expansion and response phases. Equity indicators for the programme are also strong given that nearly half of programme beneficiaries were women.

Table 3. MADE VFM indicators[28]

		MADE I (Sep 2013 to Feb 2018)				MADE II (Mar to Sep 19)	
		Year 1	Year 2	Year 3	Year 4	Year 1	Year 2
Economy	Total operational costs/total costs	Not measured nor reported	22%	38%	24%	28%	25%
Efficiency	Private sector investment leverage per £ spent		£ 0.20	£ 0.95	£ 1.50	£ 1.08	£ 1.56
	Cost per farmer or entrepreneur benefitted (engaged with projects)		£ 150.00	£ 45.00	£ 35.76	£ 19.26	£ 18.31
Effectiveness	Cost per farmer or small-scale rural entrepreneur recording an increase in sales, productivity and/or quality		£ 212.00	£ 100.99	£ 79.40	£ 32.71	£ 28.10
	Beneficiary income gain per pound spent			£ 0.40	£ 0.72	£ 2.22	£ 2.50
	Cost per beneficiary under the MDS component (MDS)					£ 47.11	£ 20.34
	Cost per beneficiary with increased income gain (MDS)						
Equity	Cost per female farmer or entrepreneur benefitted (engaged with projects)		£ 351.00	£ 78.87	£ 65.19	£ 19.38	£ 18.26
	Cost per female farmer / small scale rural entrepreneur recording an increase in sales, productivity and / or quality		£ 480.00	£ 241.07	£ 168.00	£ 32.77	£ 27.95
	Cost per poor farmer / small scale rural entrepreneur recording an increase in sales, productivity and / or quality		£ 194.00	£ 134.66	£ 91.00	£ 32.74	£ 28.08

[28] Data provided by the MADE programme in document "VfM metrics - projections MADE I&II (4-12-19)

Table 4 shows similar trends at the cost per beneficiary level for every market. It also shows that the markets where MADE's work has been more efficient were in agricultural inputs and cassava, as those markets include 75% of MADE beneficiaries. Fisheries is also the market where the cost to reach beneficiaries has been the highest, maybe linked to the efforts made to reach people in riverine areas and the limited success achieved. ESIP cost per beneficiary is high but this is consistent with the very early stage of implementation of most of ESIP interventions.

Table 4. Cost per MADE beneficiary per market[29]

	MADE I -Y2	MADE I - Y3	MADE I - Y4	MADE II - Y1	MADE II - Y2
Agricultural inputs	£ 38.52	£ 23.42	£ 28.98	£ 14.76	£ 8.43
Poultry	£ 101.48	£ 40.71	£ 55.80	£ 21.15	£ 19.87
Cassava	£ 215.78	£ 63.48	£ 39.13	£ 4.68	£ 9.53
Fisheries	£ 235.17	£ 117.80	£ 170.31	£ 62.14	£ 36.52
Palm Oil	£ 132.51	£ 32.31	£ 49.28	£ 42.62	£ 20.55
Access to Finance		£ 3,604.48			
Leather	£ 1,164.37	£ 986.86	£ 169.20		
ESIP				£ 144.57	£ 72.52
Total	**£ 103.54**	**£ 78.79**	**£ 43.99**	**£ 19.26**	**£ 18.22**

[29] Data provided by the MADE programme in document "VfM metrics - projections MADE I&II (4-12-19)

3. MARKET DEVELOPMENT COMPONENT

3.1 Fisheries

3.1.1 Context and relevance

The fisheries sector – comprised of both cultured and wild capture fish – is growing fast and is particularly relevant for small-scale fish farmers, which represent around 80% of the fisheries sector and roughly supply 82% of the country's domestic fish production.[30] The fresh fish market is dominated by culture fish, which represents around 85% of the supply, while the smoked fish is dominated by wild capture fish, which represents approximately 95% of total supply. There are about 241,000 fish-folk in the Niger Delta, of whom 38% are women. They supply input goods to over 16,000 smokers of whom 99% are women.

MADE's business case[31] and the report on aquaculture[32] prepared by the Partnership Initiatives in the Niger Delta (PIND) programme point at several underlying constraints to creating the opportunities for economic growth for poor farmers. These included poor production knowledge and practices by farmers; poor business management knowledge; low quality and reliability of fingerlings and juveniles from hatcheries; low market penetration of feed companies; high cost of imported feed and low quality of local feed; weak knowledge of markets; and weak linkages between value chain stakeholders.

The business case also presented specific constraints to the growth of the smoked fish market. These included high post-harvest losses on the side of fisher-folk and smokers; inefficient traditional smoking methods; no marketing of commercially available improved smoking technology; and use of inappropriate materials (chorkor oven) or costly (smoking kiln produced by Nigerian Institute for Oceanography and Marine Research (NIOMR) technologies.

3.1.2 Description of interventions

The two interventions implemented by MADE aimed to address a number of these constraints.

- **Intervention #1: Increase access to best pond management practices and inputs.** This intervention aimed to improve the knowledge and farming practices by fish farmers with ponds, leading to more efficient use of feed, improved water quality, and reduced fish mortality. This would reduce production costs and increase productivity of farmers, leading to increased incomes.

The core of the intervention focused on developing a cadre of specialised aquaculture business development service providers (called Aquaculture Service Providers - ASP). MADE developed the training curriculum for ASPs in 2014 and started rolling out the training in selected states. To avoid overlapping with PIND, who adopted the same approach with MADE, they agreed to focus on different states.[33] The initial trainings followed a training of trainers (ToT) approach but MADE soon realised the need to develop a more detailed and intense training scheme. A six month's training course was then designed, which was initially delivered to 27 agricultural technicians (for a fee). They became the first

30 PIND (2011). Aquaculture Value Chain Analysis in the Niger Delta.
31 MADE Business Case – Assessment of Value Chain Options. DFID, July 2014.
32 Aquaculture Value Chain Analysis in the Niger Delta. PIND, 2011.
33 Interview with MADE Technical Advisor. August 2019.

ASPs.

During the design phase, MADE also identified that most farmers also lacked adequate skills to run their economic activities profitably. MADE identified the Nigerian Agricultural Enterprise Curriculum (NAEC)[34] as a key tool to help market players improve management practices to help them succeed in their businesses. PIND did the initial work to adapt the NAEC for the aquaculture sector (the original NAEC courses were developed primarily for cereal crops) and MADE mainstreamed the NAEC into the ASP production toolkit.[35]

MADE also gave ASPs cost shared, output based grants to incentivize ASPs to provide training (including NAEC curriculum) to farmers for a fee, and organised demonstrations to promote sales of products (based on commission).[36] In addition, ASPs started to sell side services emanating from the training such as breeding services, water testing and treatment services.[37]

The more entrepreneurial ASPs became known as Master ASPs (MASPs) and MADE engaged them under a business expansion model to ensure that support services would continue to be supplied. As of September 2019, eight MASPs and 52 ASPs had been trained, reaching 11,086 farmers through commercially driven demonstration and other training activities.[38]

- **Intervention #2: Increase access to improved fish processing technologies.** This intervention aimed to improve the productivity of rural and riverine smoking clusters currently using traditional smoking technologies to increase efficiency, reduce fuel costs and increase smoking capacity. This would increase the volumes and quality of smoked fish, hence reducing further post-harvest losses, increasing productivity, efficiency and incomes for the fish smokers.

To achieve this, MADE facilitated training of fabricators by NIOMR on how to replicate the improved smoking kilns that the institute had developed and at the same time used service providers to stimulate demand through demonstrations in rural and riverine areas. MADE facilitated the training of 9 local fabricators[39] and then used technology adoption grants (TAG)[40] to stimulate demand for newly introduced improved technologies. A total of 353 smoking kilns were sold as of September 2019;[41] of these, 97 were purchased with the use of TAGs and 256 have been bought with no support from MADE.[42]

3.1.3 Efficiency and effectiveness

Although overall outreach numbers are low compared to other MADE markets, MADE has been able to reach a very large proportion of pond fish farmers in the Niger Delta. According to MADE, over 70% of them have adopted the new practices. Most of them have been able to double their productivity in one year[43] and averaged a net attributable income change (NAIC) of GBP223.8 per farmer that

34 The Agricultural Enterprise Curriculum (AEC) was first promoted by the DFID-funded Propcom Mai-karfi and USAID-funded Maximizing Agricultural Revenue in Key Enterprises and Targeted States (MARKETS). More information at https://www.makingcents.com/agricultureenterprisecurriculum
35 The case of the Nigerian Agricultural Enterprise Curriculum. MADE Learning Paper Series. April 2019.
36 MADE Annual Report 2014-15, May 2015 and MADE Annual Report 2015-16, May 2016.
37 Key informant interview with ASP Jean Paul in Imo.
38 Overview of Market Development in the Niger Delta. MADE publication.
39 MADE I Completion Report. DAI, April 2018.
40 See "Use of smart subsidies to stimulate market demand – a case of the Technology Adoption Grant (TAG) funds". MADE Learning Paper Series, April 2019.
41 File labelled "Performance of technology adoption grants" provided by the programme.
42 The review team notes the discrepancy between the number provided in the MADE I Completion Report dated April 2018 (102 smoking kilns bought with TAG) and the latest number provided by the programme (97 smoking kilns bought with TAG).
43 Result Reference Sheet-Fisheries PMT Alex Betse (saved in Dropbox).

experienced increased income.

Table 5. MADE results in fisheries market (cumulative for MADE I and MADE II up until September 2019)

	Total outreach*	Behaviour change	Increased productivity	Increased income	NAIC
Int #1: Access to best pond management practices and inputs	11,086	8,309	6,834	4,695	£941,668
Int #2: Access to improved fish processing technologies	12,017	8,567	1,431	313	£179,494
Total	**23,103**	**16,876**	**8,265**	**5,008**	**£1,121,162**

**Includes direct (8,371) and indirect (2,715) outreach.*

Note: These figures are taken directly from the reports provided by the programme and have not been independently verified.
Source: MADE I&II results-outreach to impact (5-12-19 revised).xls

Intervention 1 has created a market of business development service providers (i.e. ASPs) that continues to provide services to farmers. The interviews show that farmers are willing to pay for such services as they are very quickly able to experience the benefits of using improved technologies. This is because aquaculture farmers can have up to three cycles a year, which means that they can apply the new management practices nearly immediately and quickly experience efficiency gains.[44] The improved commercial relationships between ASPs and farmers have led to additional service offerings to farmers (linkages to new markets) and the emergence of MASPs with a network of ASPs.

The introduction of the NAEC component as part of the training has increased the efficiency of this intervention and is highly valued by farmers.[45] It has also allowed ASPs to identify other services and products that they could provide to make their business more profitable as well as how to sell their services. The NAEC has also allowed farmers to improve their decision-making concerning economic and technical aspects needed to maximize their productivity, income and profits.[46]

During the pilot phase, MADE aimed to work through feed companies (in line with the component's theory of change) to organise demonstrations, replicating PIND's approach. However, feed companies were reluctant to take ownership of the demonstration pond model and integrate it into their marketing and sales strategies. This was initially due to their reluctance of investing in areas with lower density of fish ponds and, later, because they were already selling at full capacity. As a result, MADE had to engage with feed companies such as Agro Protein and CHI Feeds through cost-sharing agreements to link them with ASPs and support them in the organisation of demonstration events[47].

The approach, however, evolved and showed effective adaptation when the ASPs started driving the interventions as they discovered the commercial incentive of selling inputs (including feed) to smallholder farmers. Moreover, the reality for feed firms changed with the naira devaluation[48] and the entrance of OLAM in the feed market.[49] The increased cost of imported feed and the increased competition meant that feed firms had to re-engage with ASPs, further consolidating that commercial relationship and the efficiency of the intervention.

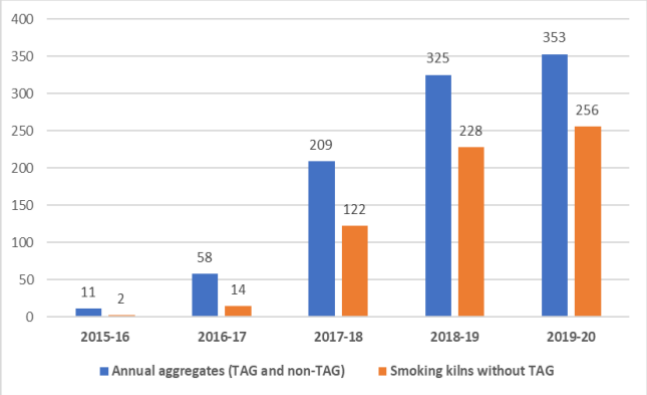
Changes in the market for new smoking technologies (**Intervention 2**) were slow at the start, but

44 Interview with MASP in IMO (Jean Paul); interview with ASP in Rivers (Momoh Samuel), interview with ASP in Calabar (Gloria).
45 Interview with MASP in IMO (Jean Paul); interview with ASP in Rivers (Momoh Samuel), interview with ASP in Calabar (Gloria).
46 The case of the Nigerian Agricultural Enterprise Curriculum. MADE Learning Paper Series. April 2019.
47 MADE Y2Q2 Quarterly Report.
48 A Report on the Effect of the Naira's Devaluation on Agricultural Value Chains in the Niger Delta. PIND & MADE, April 2017
49 https://www.olamgroup.com/news/all-news/press-release/olams-poultry-feed-mill-hatchery-and-breeder-farms-in-nigeria.html

programme figures suggest that the number of smoking kilns purchased with no TAG support, which ended in early 2017-18, has been increasing steadily (see figure 4). Although several kilns bought without MADE's support received support from other development programmes and the military[50], the numbers of smoking kilns bought without TAG are significant. These figures seem to confirm that:

- TAGs have been an effective tool to increase awareness and demand of the new technology, successfully creating a market.
- Fabricators have been able to introduce relevant adaptations to NIFOR's technology to make it more relevant to fish farmers.

Figure 4. Number of smoking kilns sold during MADE programme



The use of smoking kilns, however, has served better pond farmers in more urban, peri-urban areas as a way to add value to their product and take a different route to market[51] rather than for fisherfolks engaged in wild capture.[52] This is because the cost of transporting the kilns into the creeks was very high and getting an aftersales support from the fabricators was not possible.[53] For pond farmers, this intervention 2 stimulated the emergence of higher value marketing channels that opened new markets and new value adding opportunities for small scale producers.

MADE explored the option of developing a market for providing smoking service providers working with smoking female entrepreneurs but this approach was not successful.[54] Communities in riverine areas are geographically spread and have an individualistic culture, which made it difficult to identify off-takers of the new model. This relative isolation of the communities would also have likely impacted on the replication of the model through copying, an essential market development methodology for replication and scale.[55]

MADE also tried to incentivise demand by engaging fabricators in outreach activities together with ASPs, but most of them continue to produce based on demand and do not reach out to farmers. One exception is BIFEM Technologies, that has taken an active approach in promoting the new technologies and engaging with farmers directly independently from ASPs.[56]

3.1.4 Impact and sustainability

There MASP/ASP model introduced by MADE appears to have generated a change in the market. In addition to their primary role of providing trainings[57], ASPs are increasingly providing other services such as group formation (for easier access to group lending facilities and input purchases), linkages to

50 Interview with Fabricator in Imo, who made reference to the Youth Agricultural Entrepreneurs Programme (YAGEP) and PIND.
51 Interview with aquaculture farmer in Imo.
52 Presentation of MADE fisheries team to the review team in Port Harcourt. July 2019.
53 Use of smart subsidies to stimulate market demand – a case of the Technology Adoption Grant (TAG) fund. MADE, Learning Paper Series, April 2019.
54 Interview with MADE Technical Advisor.
55 Through several conversations with the MADE team, the review team realised that the programme remains aware of the need to improve the access to technologies in riverine communities and continues to try to identify other interventions that could help achieve the desired results.
56 Interview with CLICE Foundation.
57 Adaption has also happened at the training level as MASPs are modifying the training structured to be able to deliver it over a period of 3 months rather than 6 months (the latter was the approach introduced by MADE).

new markets for farmers, pond construction services and smoking kiln technologies. This ability to adapt and expand their services shows that the business model is commercially profitable and can successfully address the needs of smallholder fish farmers, therefore proving its sustainability. Overall, it seems that MADE has been able to successfully jump start the market of provision of business services.

Some potential challenges for the expansion and response phases of the model are:

- The continuous demand for ASP services from farmers and the ability of ASPs to continue to provide and charge for their services in a commercially viable manner. Of the 52 trained ASPs, 36 have continued to collaborate with the MASPs and remain very active. In addition, firms like Aqua Green report that they have continued training ASPs outside of the MADE programme, which suggest that there is a vibrant market for provision of these services.[58]
- Increases in pond productivity should be paired with increased access to market to ensure farmers can sustainably increase their incomes. Farmers require assured markets to continue to invest and grow.

The smoking technologies introduced by MADE do not seem to be attractive for riverine communities but have generated change in more urban and peri-urban areas (yet with better off farmers), particularly where there are clusters of farmers. Access to finance constraints still limit the ability of famers to purchase new technologies[59], although new market solutions such as the Farmers Investment / Incubator Network (FIIN) initiative could help address this constraint. FIIN provides a holistic set of fishing services and products to farmers interested in aquaculture for a fee. Services include, for example, renting of ponds, facilitating access to credit and market linkages.

3.2 Poultry

3.2.1 Context and relevance

Demand for chicken meat and eggs is substantial and growing at more than 20% per year, as incomes rise and new marketing outlets are appearing.[60] In addition, the government-imposed ban on poultry imports has raised the price of chicken and opened a good opportunity for local production.[61] The market is dominated by traditional village or backyard production, raising mostly traditional birds, which accounts for 94% of chickens in the country. In the Niger Delta approximately 3 million households – 44% of the households in the region – keep local chickens, with an average flock size of 11 per household.[62] Women dominate the value chain, primarily as producers who dominate household production, but also as collectors and retailers.

PIND's value chain report on poultry[63] identified a number of constraints in this market, including: absence of large-scale hatcheries in the Niger Delta region; cost of feed; lack of finance; weak market linkages; and limited availability of drugs and vaccines. However, MADE's business case[64] stated that although opportunities to catalyse pro-poor growth exist in breeding, vaccination, feed, housing,

[58] During the interview with Momoh Mustapha, CEO of Aqua Green, he indicated that they had 15 ASPs working for them who had trained over 5,000 farmers. Of these, around 3,000 were trained with MADE support and 2,000 had been trained since the end of MADE's support.
[59] Interview with Stanley Okereke, Team Leader for Value Sure Resources.
[60] MADE Business Case - Assessment of value chain options. April 2014.
[61] MADE Design Phase Policy Economy Analysis. January 2014.
[62] MADE Business Case – Assessment of value chain options. April 2014.
[63] Catering Services and the Poultry Industry Value Chain in the Niger Delta. PIND, January 2013.
[64] MADE Business Case – Assessment of value chain options. April 2014.

commercialisation and technical information; vaccination should be the initial area of focus, as one of the major constraints on output from local chickens in rural areas is Newcastle's Disease (NCD). NCD is a severe respiratory infection that sweeps through flocks every year, which depending on the strand of the virus could range from 10 to 100% mortality rate.[65] PIND's report identified some constraints to be addressed to specifically develop a commercial market for vaccinations: absence of rural distribution channels for vaccines; need to change farmers' attitudes and practices; access to technical information; capacity of private vaccine distributors; vaccine supply constraints; and regulatory constraints.

It is important to note that although the business case was based on traditional poultry with an average flock size for 11 birds per household, MADE's interventions also target poultry farmers with larger flock sizes (average of 264 at one point in time). The rationale was that when private companies started to move into the rural areas to do vaccinations (incentivised by MADE), they discovered that there was a much larger potential, yet unserved, market than they had been unaware of. They wanted to expand their market and not be limited to just the very small backyard farmers (who were the majority of the "traditional poultry" farmers). MADE also considered that a farmer with flocks of 400 birds a year was still a poor farmer who fit within its poverty definition, so there was no reason to exclude them.[66]

Poultry vaccination comparison – MADE/Propcom

- The target population was different, with MADE looking at flocks smaller than 400 birds, while Propcom targeted flock of less than 40.
- Propcom focussed on the distribution and administration of the NCD vaccine, with vaccinators offering other services organically. MADE offered its vaccinators a range of inputs and business skills training.
- MADE vaccinators were offered capital equipment (transport and refrigeration) while Propcom vaccinators needed these same things but had to procure them on their own.

3.2.2 Description of interventions

MADE had two interventions in the poultry market to address the main constraint identified in the business case: develop a commercial market for vaccinators.[67]

• **Intervention #1: Improve access to good poultry management practices and poultry health products**. Drawing on the success of Propcom and working in collaboration, this intervention aimed to introduce commercially viable veterinary services into the peri-urban and rural areas to sustainably reduce poultry mortality rate caused by NCD. Through the use of facilitation and cost sharing grants to de-risk investment, MADE supported veterinary pharmaceutical companies (VPCs) and agrodealers to develop a network of para-vets named Village Level Dealers (VLDs) that provide business support services to rural smallholder poultry farmers.[68] VLDs are trained by VPCs and agrodealers to support diagnosis of poultry diseases, provide advice on disease management, and sell drugs/vaccines.[69]

Different models of engagement were tested during the earlier stages of this intervention. Turner Wright initially tested a model where para-vets were full time employees of the company, while Zygosis and AgriProject tested the independent commission model. After one year of operation,

65 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5142595/
66 Conversation with MADE Technical Advisor.
67 A second intervention was developed in the last stages of MADE I but really took off in MADE II - Increase access to improved poultry breeds. This intervention will be assessed as part of phase II of this review.
68 MADE I Completion Report. DAI, March 2018.
69 MADE's original approach was to develop Village Level Vaccinators (VLVs) but returns to the vaccinator business alone were very low, mainly caused by overheads relating to transport and access, especially as vaccinators attempt to deliver to remote riverine communities.

Turner Wright decided to change to a commission-based model as administrative costs were too high.[70] This commission-based model is, in fact, the model now adopted by all lead firms currently working with MADE.

To further strengthen the commercial viability of VLDs, MADE and the VPCs actively encouraged VLDs to increase their range of products and services. This included, for example, providing vaccination services for other types of birds (e.g. guinea fowls, boilers, layers) or selling other types of inputs (e.g. vitamins, feed). In addition, MADE helped strengthen the entrepreneurial skills of VLDs through poultry NAEC training (which was adapted from the NAEC for pond management), further supporting the sustainability and growth potential of their businesses.

To address the constraint of access to vaccines, MADE worked with Propcom and the Nigerian Veterinary Research Institute (NVRI) to ensure linkage between the VPCs and NVRI to supply 50 and 200 dosage thermostable NCDI2 vaccines to micro and small-scale poultry farmers across the Delta.[71]

Under this intervention, a network of 188 VLDs was established with support from three VPCs (Turner Wright, Zygosis and AgriProject Concept International) and 65,585 farmers (47% women) were reached through access to vaccination and exposure to good poultry management practices.[72]

- **Intervention #2: Increase access to improved poultry breeds.** This intervention was developed towards the end of phase I. It aimed to increase access of MADE farmers to improved chicken breeds (versus traditional ones) to improve (and diversify) income generating opportunities and nutrition levels. In this intervention, MADE partnered with Amo Farms and other service providers to support 23 mother units in Edo and Imo States, reaching 509 small-scale poultry farmers with improved noiler breeds of at least 40 birds each. The noiler initiative is aimed at strengthening capacities of mother units operators (i.e. those brooding day old chicks to five weeks) to provide intensive husbandry services to ensure growth and low mortality during the vulnerable period of the noiler bird's life cycle (day-old chick stage to 6-weeks) for onward sales to micro and small scale farmers (primarily women) who then raise the birds for another 10 weeks to table size for sale.

3.2.3 Efficiency and effectiveness

Overall outreach of this intervention is sizable although its NAIC contribution remains modest as the net additional income increase by farmer is GBP79. The income effects of this intervention are the lowest of all MADE markets.

Table 6. MADE results in poultry market (cumulative for MADE I and MADE II up until September 2019)

Poultry	Total outreach*	Behaviour change*	Increased productivity	Increased income	NAIC
Int #1: Access to best management practices and health inputs	65,585	59,715	43,478	32,740	£2,589,986
Intervention #2: Increased access to improve poultry breeds	n/a	n/a	n/a	n/a	n/a
Total	**65,585**	**59,715**	**43,478**	**32,740**	**£2,589,986**

**This number includes direct and indirect beneficiaries.*

[70] Interview with Dr. Moses Ayato, Turner Wright.
[71] MADE I Completion Report. DAI, March 2018.
[72] MADE report "Overview of Market Development in the Niger Delta"

Note: These figures are taken directly from the reports provided by the programme and have not been independently verified. Source: MADE I&II results-outreach to impact (5-12-19revised).xls

Despite the low-income effects, this intervention seems to have achieved penetration rates close to 75% of the total population involved in this market[73] and seems to have stimulated the emergence of a dynamic services system and higher value marketing channels.

MADE seems to have succeeded in implementing a sustainable model in the Niger Delta where VPCs are continuing to develop their own networks of para-vets incentivised by increased brand recognition and higher sales. At the same time, VLDs (i.e. para-vets) are seeing an opportunity to establish themselves as entrepreneurial business service providers providing these and other products and services to farmers on a commission basis. Farmers are now able to access vaccination, poultry management services and other services and products closer to their homes, more regularly, at a lower cost (due to breaking of bulk) and more efficiently (more tailored to their needs).

The first instances of adaptation by large VPCs such as Turner Wright and Zygosis can also be observed, which confirms the potential for this intervention to generate lasting change in the market. Turner Wright, a large VPC, only supplied large commercial clients until 2014. Following MADE's facilitation efforts and a cost-sharing grant that allowed them to de-risk investment, they started operating in seven states in the Niger Delta trying to develop the market to supply poultry farmers with under 2,000 birds. At present, Turner Wright has 150 operational VLDs in the Niger Delta with a target of 200 for 2019 (with no MADE support). [74] They have also invested in bulk breaking four of its products (Piper vet, Lay wright, Embracery and Vita Wright) from 1,000mg /500mg to 30g targeted at farmers with flock sizes of less than 50 birds.[75]

VLDs have established themselves as para-vets and some are becoming small businesses. Given that the revenue from vaccinations is limited (every vaccination costs around NGN20, equivalent to roughly 0.05GBP), VLDs that wanted to take a more entrepreneurial approach had to expand their offering of products (e.g. sell feed and/or vitamins) and services (such as vaccinating other birds).[76] This has allowed some of them to provide this service on a full-time basis, while others just see it as another income generating activity. The entrepreneurial approach was embedded by MADE through the NAEC training, which helped VLDs and poultry farmers strengthen their businesses. MADE adapted the NAEC from pond management training to poultry management training, an instance of cross learning for the programme between interventions.

The limited quality of the traditional breeds, which are less productive and more prone to certain diseases, raised questions around the ability of small poultry farmers to participate in and benefit from the poultry market. Intervention 2 has allowed VLDs to promote improved breeds that should be able to impact the productivity of small holder and semi-commercial farmers. MADE was able to incentivise a lead firm like Amo Farms to expand operations further in the Niger Delta and is now experiencing significant growth of their noiler business.[77] By raising chicks in mother units until six weeks, MADE is also supporting smallholder farmers (the end buyers) to reduce their mortality rates, as by the time

73 MADE Learning Case. Draft version of upcoming MADE learning paper.
74 Interview with Dr. Moses Ayato, Turner Wright. Note that the expansion is happening during MADE II
75 MADE team Poultry Presentation to the review team.
76 Interviews with VLDs in Akwa Ibom and Rivers.
77 Interview with Peace Opara, representative of Amo Farms.

they buy the chicks the highest risk period will have passed (and 6-weeks chicks will have received vaccinations).

3.2.4 Impact and sustainability

The proposed interventions have generated significant innovation in the market. VLDs have been able to build upstream links with VPCs as well as downstream links to farmers, increasingly through building their own network of village level retail agents. VLDs have continued to expand (see Table 7) and grow their client base (including providing services to other livestock farmers) and are currently at a phase when expansion is happening with no MADE support.

Table 7. Poultry market increasing scale of VLDs and outreach

Year	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
Number farmers reached	74	5,387	20,791	36,715	50,057	65,585
Number of VLDs	27	56	78	101	112	188

A challenge to the viability of this intervention, however, lies in the ability of VPCs and VLDs to continue to expand the range of inputs and services (beyond the initial focus on vaccines and vaccination services) to farmers, especially within the higher segment of customers (farmers up to 400 flock size). However, VPCs are continuing to use and expand the VLD model and breaking bulk, therefore sustaining change and increasing the impact of the intervention.

It is harder to assess the impact of the introduction of improved breeds in the market as limited impact data has been generated by the programme. The choice of partner, however, seems to be the right one. Amo Farms, who was familiar with the business model used in MADE, is investing resources and time to expand the number of mother units in the Niger Delta. MADE's support has allowed them to accelerate the pace of investment and therefore their expansion plans should help achieve impact and scale, as well as generate some crowding in and replication in this market.

3.3 Palm oil

3.3.1 Context and relevance

Demand for palm oil (and kernel) in Nigeria remains high for food and industrial purposes, so imports continue to grow on a yearly basis to satisfy the unmet demand.[78] The Niger Delta accounts for more than half of the area under oil palm cultivation and palm oil produced in Nigeria, where 80% of oil palm and palm oil production comes from small-scale producers and processors (between 1 and 10 ha. of land).[79] However, they only represent 57% of total oil palm production. The sector provides employment and income for about 954,000 smallholder plantation owners, smallholder processors, wholesaler and retailers in the region. Women are particularly relevant in processing and retail.

Most of oil palm harvested is in wild groves (74%) with limited formal tenure associated with it, resulting in limited investment and low yields (between 3-4MT per ha[80]). The widespread use of inefficient, largely manual processing and harvesting technologies results in low oil yields and poor-quality outputs. For example, many smallholders record about 25-30% loss of oil palm because of the

78 According to USDA, palm oil imports in 2018 were 320,000 MT, over a 9% increase over the previous year. Source: https://www.indexmundi.com/agriculture/?country=ng&commodity=palm-oil&graph=imports
79 MADE I Completion Report. DAI, March 2018.
80 See Palm Oil Intervention Justification Brief. Large plantations are able to achieve yields between 18-20 MT per ha.

traditional processing technology employed.[81]

The PIND Palm Oil Value Chain in Rivers and Imo States[82] and MADE Business Case point to five major systemic constraints: 1) low levels of harvested fruit and oil yields due to limited availability of appropriate technologies; 2) weak linkages and relationships within the value chain; 3) weak flow of information at the production, processing and end market levels; 4) poor application of good agricultural practices in production and harvesting; and 5) lack of access to credit. Addressing these constraints should increase profitability of oil palm production by 50%, creating opportunities for smallholder plantation owners and palm oil sales for small processors and traders from the Niger Delta.[83]

3.3.2 Description of interventions

MADE implemented interventions 1 and 2 during the first phase of the programme, and intervention 3 during the second phase. They are:

- **Intervention #1: Improve access to harvesting and processing technologies.** This intervention aimed to complement intervention #1 by building the capacity of fabricators and marketers to manufacture and promote harvesting technologies such as the Malaysian knife and the mechanical adapted harvester (MAH). It also supported manufacturers to scale down a 2MT small-scale processing equipment (SSPE) designed by the Nigerian Institute for Oil Palm Research (NIFOR) to 0.5MT, making it more accessible to small scale processors.

Initially, the programme engaged four fabricators to conduct demonstrations in two states, but despite reaching 550 millers, only two SSPEs were sold. MADE identified limited equipment available for demonstrations to show the value proposition in the regions as a key constraint so decided to incentivise the adoption of these technologies through a technology adoption grants (TAG). The TAGs allowed MADE to cost-share the adoption of the technology through the fabricator with the processor in exchange for the organisation of demonstration events to showcase the technologies to new farmers. As of September 2019, this approach effectively led to sales of 226 SSPEs to commercial millers and plantation owners (of which 56 were bought with no support from the programme), 88 MAH (of which 53 were bought with no support from the programme) and 1,490 units of Malaysian knives to farmers.

- **Intervention #2: Improve access to information on best management practices (BMP).** This intervention started in year 3 of MADE I and aimed to develop an integrated model between input companies, agrodealers and lead farmers (through demonstration plots) to promote use of best management practices amongst farmers. The intervention initially focused in engaging CANDEL, a large input company, through a cost sharing agreement to set up 200 demonstration plots to promote BMPs amongst smallholder farmers. The vision was that CANDEL would increase its input sales and farmers would receive embedded services. However, the level and technicality of the support required by oil palm smallholder farmers was too specialised for CANDEL staff, so MADE had to engage SHERDA, a specialised oil palm service provider, to organise demonstration plots and train CANDEL staff (in an effort to get them ready to provide extension support in the future) and agrodealers on the best

81 MADE I Completion Report. DAI, March 2018.
82 Report prepared by PIND in December 2012.
83 MADE Business Case – Assessment of Value Chain Options. April 2014.

practices for oil palm farming so that they could provide extension support to farmers through embedded services.

- **Intervention #3: Promote private sector driven supply of improved oil palm seedlings.** MADE facilitated commercial linkages between Sprouted Nut Producers (SNPs) and Private Nursery Operators (PNOs) to promote improved oil palm seedlings by establishing tenera nurseries to promote adoption of improved tenera seedlings. A total of 9,297 farmers have been reached through tenera nurseries demonstration across the region.

3.3.3 Efficiency and effectiveness

As Table 8 indicates, outreach numbers in the palm oil interventions are modest, particularly looking at the total NAIC generated. This is not surprising, however, as the adoption of new farming practices does not produce an immediate impact on yields and income. Applying BMPs such as pruning or land clearing can help increase yields from 6MT to 10MT per ha., but it takes at least two years to start to see the positive impact.

Productivity and income increase have mainly come from the adoption of SSPE technology, as productivity gains can be immediately captured. MADE I Completion Report states that commercial millers provided improved milling services to users who, on average, reported a 28% increase in oil yields.

Table 8. MADE results in palm oil market (cumulative for MADE I and MADE II up until September 2019

	Direct outreach	**Behaviour change**	**Increased productivity**	**Increased income**	**NAIC**
Int #1. Adoption of technologies	23,179	12,281	5,582	3,154	£552,901
Int #2. Improve access to BMP	8,321	5,948	1,975	1,975	£244,902
Int #3. Promote oil palm seedlings	9,297	6,095	2,242	174	£29,932
Total	**40,797**	**24,324**	**9,799**	**5,303**	**£827,735**

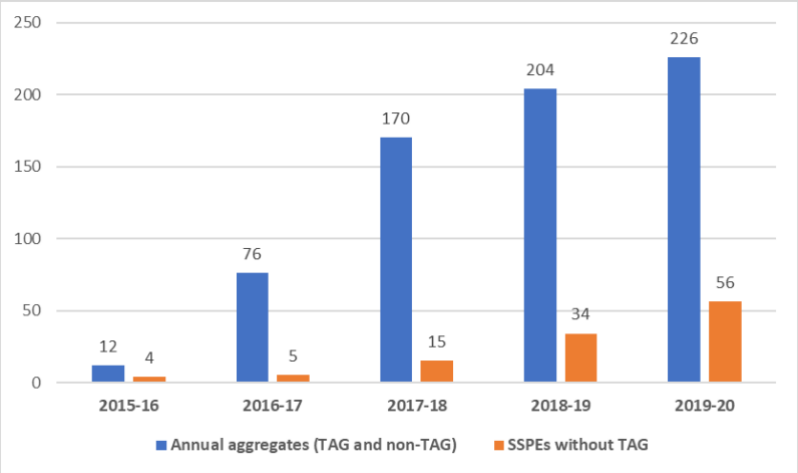
Note: These figures are taken directly from the reports provided by the programme and have not been independently verified.
Source: MADE I&II results-outreach to impact (5-12-19revised).xls

The programme used TAGs to raise awareness and incentivise the demand for new technologies, and although 226 SSPE units were sold, only 56 have been bought with no MADE support (see figure 5). This suggests a rather modest uptake of this technology. One explanation could be that the SSPE technology remains expensive (despite adaptations) as costs range from NGN700,000 for a simple mechanical machine to NGN5m for a hydraulic power one.[84] Access to finance is therefore necessary to ensure that small and medium scale processors can more widely adopt the new technology. The access to finance constraint, which was repeatedly mentioned during the review team interviews with

[84] Interview with SHERDA, co-facilitator.

relevant stakeholders, limits the ability of the intervention to scale up and achieve systemic change.

Figure 5. Cumulative number of SSPE sold



3.3.4 Impact and sustainability

A key aspect for the sustainability of the proposed model is to ensure that new farmers continue to receive training on best management practices. Unfortunately, MADE was not able to engage a large plantation/mill (e.g. PRESCO or Okomu) to lead change in this market. This required the programme to engage a service provider (SHERDA) to train agrodealers and lead farmers on best management practices and the use of some new technologies. The issue is that SHERDA has limited incentives to continue to provide such services after the end of the programme, so sustainability of the model developed for this intervention remains a challenge.

In addition, the complexity, long timeframes and range of challenges in the palm oil sector makes it very difficult to achieve systemic change. A key challenge in the palm oil market is that most investments aimed at improving the productivity of the trees require medium to longer term capital. For example, it takes between 12-14 months for a nursery to go from seed to seedling, which requires private nurseries to carry significant amounts of working capital. Similarly, once a seedling is planted, it takes about four to five years to produce fruits suitable for harvest and 10 years for peak productivity. As mentioned above, access to finance is also required for purchasing improved processing technologies and, in some instances, to purchase the land required to set up the business.[85]

The other challenge for impact remains the prevalence of wild grove in many states. Although the programme made efforts to increase the availability of improved oil palm seedlings, 74% of oil palms harvested by smallholder farmers are still the traditional dura variety, which yields less oil than the tenera variety. It remains unlikely that availability of seeds and some BMP support will be enough to generate the behavioural change required from smallholder farmers in the absence of the programme.

[85] Interview with Engineer Sylvanus O. Mworgo (palm oil producer) and Kechinwer Elekwa (farmer and palm oil processor).

3.4 Agricultural inputs

3.4.1 Context and relevance

For the Niger Delta, agriculture is a critical sector that accounts for 24% of its national contribution to GDP and employs 52% of the region's labour force.[86] Overall, it provides livelihoods to 90% of the rural population. There are around 4million crop farmers in the region, 30% of whom are women and 80% are smallholder farmers (between 0.5 and 4 ha.).[87]

MADE's cross sector learning

In implementing MADE there has been a lot of learning across the value chains and interventions have evolved accordingly. Some examples include:

- Agricultural inputs have been a driver for growth in other value chains such as cassava and palm oil.
- MADE supported the generation of raw materials (e.g. cassava planting materials and palm oil nurseries) and then used its business services provision models to promote its use.
- The Cassava Stem Entrepreneur initiative used the Master Aquaculture Service Provider model, where they train others who then work through them.
- NAEC was introduced in the aquaculture intervention and then, seeing its value, adapted and introduced for the poultry intervention.

The incidence of poverty is highest among households in which the head is engaged in agriculture as main source of income. Underpinning this is their low input/low output production model. Across the Niger Delta, small scale farmers' access to and usage of agricultural inputs (fertiliser, seed and crop protection products) remains limited.

MADE's business case identifies a number of constraints in the agricultural inputs market[88] that can be summarised as: 1) low use of agricultural inputs by farmers due to inappropriate packaging (i.e. minimum size bags of inputs are too large for the real needs of smallholder farmers) or distance to retail markets; 2) poor knowledge of good agronomic practices by farmers; and 3) limited understanding of market opportunities by agricultural input companies.

3.4.2 Description of interventions

By intervening in the agricultural inputs market, MADE aimed to facilitate the development of rural input distribution systems by fertiliser and crop protection product (CPP) companies and embed good agricultural practices into the selling process of agricultural inputs. It did this through two interventions:

- **Intervention #1: Improving access to information on GAP and quality inputs.** This intervention aimed to support major agricultural input companies to increase their sales to drive outreach to farmers and improve their channels for input distribution. It followed a similar intervention implemented by Propcom in Northern Nigeria.

MADE was able to engage four agricultural input companies (Syngenta Nigeria Ltd., Contec Global Agro Ltd, Saro AgroSciences and Candel Company) to develop and establish distribution channels in the Niger Delta using output-based grants. These grants were used to de-risk the companies' investment in undertaking market research, developing GAP training manuals and organising demonstrations.

86 MADE Business Case – Assessment of value chain options. April 2014.
87 MADE team presentation to the review team.
88 MADE Business Case – Assessment of value chain options. April 2014.Pages 15-16.

The objective was to demonstrate to these companies the existence of a viable market to sell inputs to smallholder farmers in the Niger Delta and that the increases in sales would more than compensate for the need to organise demonstrations to farmers. Syngenta, for example, was primarily interested in introducing crop specific products such as the ampligo insecticide to treat the fall army worm problem in maize.[89] Contec was interested in introducing bio-safe pesticides to treat farm pest problems.[90]

Demonstration plots of key crops were established across 200 LGAs reaching over 123,615 farmers growing a wide range of crops (including cassava, rice, vegetables, cocoa). At the same time, agricultural input companies were able to develop direct commercial arrangements for product distribution and sales with 296 agrodealers (of which 30% were lead farmers transformed into micro-retailers engaging farmers).[91]

• **Intervention #2: Strengthening capacity of agricultural/spraying service providers.** As trained farmers have enhanced knowledge of GAP and inputs following intervention #1, the demand for usage of crop protection products is meant to increase. Hence, this intervention focused on supporting the development of spray service providers (SSPs) and agro retailers to provide quality crop diagnosis and sell appropriate crop spraying solutions to farmers, particularly in the markets for cassava, maize and cocoa. This intervention follows a very similar model implemented by Propcom in Northern Nigeria.

Spraying services providers comparison – MADE/Propcom

- The two interventions are very similar, although MADE has partnered with three private sector implementing partners.
- Propcom experienced some displacement of informal SSPs. In MADE any displacement is unknown, but MADE focused on working with existing SSPS.
- MADE supplemented their intervention to include input dealers to ensure the high quality CPPs were available to the SSPs.

The programme aimed to achieve this through two paths. First, by engaging the same agricultural input companies engaged in intervention #1 to provide training to agrodealers on quality spraying services to agro-retailers. Second, the programme engaged CropLife Nigeria, the business membership organisation (BMO) of agricultural input companies, to strengthen capacities of 103 spray service providers (and agrodealers during phase II of the programme) in the region. CropLife had implemented similar trainings for Propcom so was familiar with the approach.[92] Through trained sprayers, 13,468 farmers have accessed improved services.

3.4.3 Efficiency and effectiveness

Interventions in this market represent over 36% of MADE's beneficiaries in terms of outreach. MADE was able to reach 161,511 farmers by intervening in this market, the highest outreach of all MADE markets. More importantly, it seems that the model implemented is allowing farmers to improve their farming practices, leading to significant yield increases. MADE I Completion Report states that cassava farmers have experienced a net additional increase in yield of 26.5% while the yield increase for maize

89 Interview with Sunny Ameh, CU Head, Syngenta
90 MADE I Completion Report. DAI, March 2018.
91 MADE I Completion Report. DAI, March 2018.
92 Interview with Adigun Babajide Daniel, Project Manager SSP Projects, Croplife Nigeria - the main difference identified during the interview between the two programmes was that Propcom Mai-karfi trained youth with no experience in spraying, while MADE aimed at existing sprayers as well as agrodealers.

farmers has been 13%. These increases in yields have led to a NAIC per farmer of GBP120 for intervention #1 and GBP162 for intervention #2 during the programme's lifetime.

Table 9. MADE results in agricultural inputs market (cumulative MADE I and MADE II up until September 2019)

Agricultural Inputs	Outreach*	Behaviour change*	Productivity increase	Income increase	NAIC
Int #1. Improve access to GAP	161,511	140,916	114,119	93,132	£11,173,936
Int #2. Strengthen capacity SSPs	13,468	10,858	8,941	6,795	£1,096,826
Total	**174,979**	**151,774**	**123,060**	**99,927**	**£12,270,762**

**Includes direct and indirect*

Note: These figures are taken directly from the reports provided by the programme and have not been independently verified.
Source: MADE I&II results-outreach to impact (5-12-19revised).xls

During the first phase of the programme, MADE was able to develop strong partnerships with input companies that committed resources and time to develop a new model working with smallholder farmers.[93] They expanded their product lines and investment in the region. The four input companies and their network of agrodealers recorded increased sales and revenue. In 2017, the lead input companies recorded combined sales of about NGN2.4 billion (approximately GBP5m.) in the region, an increase from NGN800 million (approximately GBP1.7m.) in 2014.[94] In addition, agrodealers recorded an average of 55% increase in sales directly linked to the corporate demonstration activities, while spray service providers recorded an average of 50% increase in sales and income.[95]

Agricultural input firms acknowledge the potential of the model introduced by MADE (which follows the programme's theory of change), but the reality is that they will only implement it if they believe the market is commercially viable. Following MADE's facilitation efforts, agricultural input companies have seen the potential of working with smallholder farmers in the cocoa market (ensuring engagement of their extension agents directly with farmers).

MADE also seems to have succeeded in developing a market for SSPs through their engagement with CropLife, the industry BMO. CropLife has developed a comprehensive 5-day training programme that is valued by sprayers as it makes them more marketable[96]. Their ability to enrol farmers that were already providing some kind of spraying services means that they face a very low level of attrition (over 90% of sprayers trained by MADE continue to operate). It is important to note that there are no women sprayers as it is considered that they are exposed to greater health hazards than men.

3.4.4 Impact and sustainability

The sustainability (and potential for replication) of the model relies on the willingness of the large agricultural input companies to continue to engage with local agroretailers and service providers agrodealers to continue to promote best agricultural practices and usage of quality inputs by smallholder farmers.

Syngenta explained that the conditions were not right to continue to implement the MADE model in the Niger Delta except in the market for cocoa as the cost of running the programme was significantly higher than anticipated. [97] In addition, the drop in commodity prices and the increase in input prices

93 Interviews with Syngenta and Saro.
94 MADE I Completion Report. DAI, March 2018.Page 38.
95 MADE I Completion Report. DAI, March 2018. Page 38.
96 Interview with SSP.
97 Interview with Sunny Ameh, CU Head, Syngenta.

following the naira devaluation meant that the disposable income of farmers had also dropped, so sales had been lower than expected as farmers reverted to the cheaper generic products rather than the Syngenta branded ones. However, they viewed the model as very relevant and expressed interest to continue developing it if the economic conditions changed.

Saro AgroSciences[98] also expressed doubts on the viability of the market for maize products as the demand volume was too low and confirmed that they would continue to implement the MADE model (which includes the use of their own extension agents) for cocoa farmers. Firms have therefore adapted the model and continue to implement it in commercially viable markets. Both firms also confirmed that MADE support had allowed them to strengthen their trade channel as they had been able to develop strong relationships with a large network of agrodealers in the Niger Delta.

The role of the private sector is also affected by the government's unsustainable subsidy utilisation in procurement and distribution of fertiliser. It restricts private sector involvement and reduces the incentive for farmers to purchase inputs at full price. It also affects their decision of buying generic products versus the generally more effective branded ones.

The market created for SSPs is promising, although questions remain about the commercial viability of providing spray services given the high costs of sourcing the product (they need to buy in bulk) as well as the transport costs of going to the communities, particularly riverine ones.[99] More importantly, CropLife needs to develop a business model to charge for the training and certification provided to ensure that services can continue to be provided in a commercially sustainable manner.[100]

3.5 Cassava

3.5.1 Background and relevance

Nigeria is the largest producer of cassava in the world and the Niger Delta produces about one-third of the total national output (around 14million MT of cassava a year). Over 80% of the region's rural poor derive some benefit from the cassava value chain in one capacity or another and contributes to about 34% of the household's total income. The sector provides employment for farmers, farm labourers, processors, traders and transporters. About 70% of cassava farmers in the region are women, who are almost entirely responsible for the processing and marketing of cassava and its by-products.[101]

The end markets for cassava in the Niger Delta region can be broadly categorised into two: the traditional food oriented segment (such as fufu, tapioca and garri) that accounts for about 90% of cassava produced) and the industrial product segment (including starch and high quality cassava flour – HQCF) which accounts for less than 10%.[102] The bulk of the industrial product demand is being met by importation and inadequate local production of starch and glucose syrup, creating an opportunity for increased quality local production. The demand for packaged and improved cassava food products (garri, odourless fufu flour) is also rising in urban centres.[103]

98 Interview with Kolode Dada, Head of Sales & Distribution of Saro AgroSciences.
99 Interview with co-facilitator.
100 In the interview with Adigun Babajide Daniel, Project Manager SSP Projects, Croplife Nigeria, he mentioned that CropLife does not charge farmers for its services
101 MADE Business Case – Assessment of Value Chain Options. DFID, April 2014.
102 PIND Cassava Value Chain Study. 2011.
103 PIND Cassava Value Chain Study. 2011.

The PIND cassava report identified four key constraints for the development of this market: 1) poor value chain coordination from farmers to processors; 2) low production and productivity levels due to poor agronomic practices and inputs used; 3) weak processing capacity to meet demands of HQCF market; and 4) weak coordination and advocacy bodies. The MADE business case[104], however, did not include cassava amongst the initial list of markets that MADE would intervene in. This was justified on the basis of the failures of many supply-based government and donor cassava programmes, [105] the challenging political economy,[106] and the limited potential for growth in the sector.[107]

Soon after the business case was finalised, cassava became one of the five leading value chains under the government's Agricultural Transformation Agenda and new policies were introduced - import ban on cassava flour and reinstatement of the requirement for 10% inclusion of cassava in flour for bread baking[108]. In addition, the devaluation made imports of corn starch more expensive, so product substitution occurred with cassava starch. Given the renewed potential for growth in this market and the importance of cassava for farmers in the Niger Delta, the programme decided to include cassava as one of its markets despite the risks.

3.5.2 Description of interventions

The programme implemented two cassava interventions during Phase I:

- **Intervention #1: Engage Small Medium Enterprises (SME) processors and input companies to disseminate GAP to farmers.** MADE engaged 8 cassava SME processors (mostly mills that were left idle or were underperforming following the failure of the earlier government scheme) to help them establish outgrower schemes (providing training and stems to farmers) and connect them to new market opportunities. MADE provided them with grants of NGN10 million (around GBP21,000) to set up schemes connecting 2,600 famers to new market opportunities. MADE also developed partnerships with agro input companies (e.g. Saro, Contec, Candel) through a cost-sharing agreement[109] to develop cassava GAP training material, train lead farmers and agroretailers, and conduct demonstrations to farmers. The expectation was that agro input companies would improve their understanding of the market for smallholder farmers and see a market opportunity through increases in sales. Farmers would also experience the positive impact of using quality inputs and best practices and continue to use them in the future.

After the pilot phase, and given the limited outreach numbers achieved by some agro-input companies (i.e. Contec, Candel), the programme reviewed the initial model and introduced the use of co-facilitators.[110] Their goal was to mobilise larger number of farmers for participation in good agriculture practice demos, provide technical backstopping to the input companies for greater effectiveness and efficiency, and help develop agrodealers in underserved demo plot areas by linking them to agroinput companies.

104 MADE Nigeria Business Case. DFID, June 2014.
105 MADE Niger Delta Conflict Analysis. DFID, December 2013.
106 MADE Niger Delta Conflict Analysis. DFID, December 2013.
107 The PIND Cassava Value Chain study indicated that "the flour millers (who are the only user of HQCF) are unwilling to buy it at more than N85,000/MT whereas processors claim they are only profitable at N110,000/mt. So the product appears to be unprofitable, which prompted many SME processors to stop production".
108 MADE Design Phase Political Economy Analysis. DFID, January 2014.
109 MADE contributed with 40% of the costs.
110 These are Life & Peace Development Organization (LAPDO), Kolping Nigeria, Kzanug Ahuaz Limited (KANL) and Green Concern for Development (GREENCODE).

More than 868 demonstration plots were established by agricultural input companies (in partnership with other implementing partners) reaching over 94,188 cassava farmers (54% women) by September 2019. The programme also recorded improved linkages between SMEs and smallholder farmers to supply fresh roots for sustained production of packaged foods for sale in high value markets.

- **Intervention #2: Develop a network of village seed entrepreneurs (VSEs) for cassava seed multiplication and commercialisation.** This intervention was developed in the last quarter of 2017 as the MADE team realised the importance of building an economically sustainable and integrated cassava seed system in the Niger Delta that could sustain the growth of the industrial product segment. The intervention aimed to improve access to stems of improved varieties of cassava by developing a network of village seed entrepreneurs (VSEs) that would address the need for improved cassava stems in the region.

MADE initially partnered with the National Root Crop Research Institute to train 60 VSEs, of which 18 became Master Village Seed Entrepreneurs (MVSE). These later trained over 900 VSEs, ensuring expansion of the VSE model and the availability of improved cassava stems in the region. As of September 2019, 67,791 cassava farmers have accessed stems of improved varieties.

3.5.3 Efficiency and effectiveness

Interventions in the cassava market have contributed to around 38% of MADE's outreach numbers. Through intervention #1, MADE I reached 77,364 farmers (both directly and indirectly). The very high adoption numbers reported by the programme and the significant NAIC generated by every farmer that experienced income increase (GBP220 per farmer) makes interventions in this market the largest contributor to MADE's overall NAIC figures. In other words, 44% of MADE's NAIC has been generated by interventions in the cassava market.

Table 10. MADE results in cassava market (cumulative for MADE I and MADE II up until September 2019)

	Outreach (direct)	Outreach (indirect)	Behaviour change (direct)	Behaviour change (indirect)	Increased productivity	Income increase	NAIC
Int #1. Disseminate GAP to farmers	94,188	18,700	89,512	17,797	923,352	70,060	£8,051,242
Int #2. VSEs for stem multiplication	67,791	n/a	57,753	28,645	86,398	59,539	£5,060,835
Total	**161,979**	-	**147,265**	**46,442**	**1,009,750**	**129,599**	**£13,112,077**

Note: These figures are taken directly from the reports provided by the programme and have not been independently verified.
Source: MADE I&II results-outreach to impact (5-12-19revised).xls

Intervention 1 has been one of the most effective MADE interventions in terms of outreach of farmers although it has been below average in terms of NAIC per farmer. The programme has also been able to work with agro input companies, agrodealers and SME processors to share knowledge and allow for increases in productivity among cassava-producing farmers. Coordination has been good as SME processors have continued to collaborate with agricultural input companies in organising productivity enhancing demonstrations for outgrowers.[111] Overall, MADE has been able to help these input

111 MADE I Completion Report. DAI, April 2018.

companies realise that there is a market for smallholder farmers, but that it is much more complex and demanding market than they originally envisaged.[112]

This has required lead firms to make changes in the model to become more efficient. Saro Lifecare, for example, adapted the original MADE model and in 2016 introduced extension agents to train directly and aggregate farmers through demonstration activities. This allowed them to increase significantly their sales of certain products such as a rooter herbicide for cassava weed management and control. But the increase in sales was not enough to cover the costs of running this model for cassava farmers.[113] As an alternative, Saro Lifecare continues to supply cassava inputs through its trade sales channel, basically supplying agrodealers. The experience has been similar in the case of Candel (no longer providing GAP training) and Contec (just working through agrodealers). Overall, using the trade channel (i.e. working through agrodealers, who can also provide embedded services) is a well-tested and efficient model that allows to reach large numbers of farmers.

In the case of SME processors, MADE's intervention has been efficient in the sense of providing them with an opportunity to rehabilitate the factories and establish outgrower schemes for off-take. But despite the potential for the SME processor model in supplying the industrial product channel, significant challenges remain to ensure that this model can be sustained. Some of these challenges include:

- SME processors are operating at around 40-60% of their capacity[114] and want to expand, so support might be required to ensure that they remain commercially and financially viable.
- Lack of access to finance limits the ability of SME processors to expand their facilities, provide input credit to farmers and/or increase the number of farmers they work with.
- Need to understand how much of the commercial viability of the current model is directly linked to the current policy environment and what will happen when it changes (i.e. the 10% requirement is removed).

The subsequent introduction of **Intervention 2** has allowed a more systemic approach in this market by addressing supply side constraints. The MVSE model has continued to expand the number of VSEs and hence the number of improved cassava stems available for smallholder farmers. This intervention was initially introduced by IITA BASICS, who directly trained VSEs to multiply improved varieties of cassava stems. This meant, however, that expanding the number of VSEs was linked to training fund availability, limiting its replicability. MADE adapted this intervention by introducing the concept of MVSEs, who provided training and advisory services to VSEs for a fee.

3.5.4 Impact and sustainability

The examples of adaptation from lead firms presented above and the instances of replication coming from other input companies (Bayer, CHC Agritech)[115] are examples of the potential for impact and sustainability of this intervention. The model introduced by MADE has also influenced some lead firms to test it in other lines of business. Saro Lifecare, for example, changed its definition of large farmers and now see value in working with farmers with less than 50 ha., and is currently applying the model

112 Interview with Kolode Dada, Head of Sales & Distribution of Saro Lifecare.
113 Interview with Kolode,Dada, Head of Sales & Distribution of Saro Lifecare
114 Figure obtained from MADE team and interview with Winosa Farms.
115 This information has been provided by the MADE team and has not been verified by the reviewers.

introduced by MADE with cocoa farmers in the Niger Delta.[116]

From an impact and sustainability perspective, incentives are well aligned for SME processors to deepen business relationships with farmers and input companies. Winosa Farms, for example, has been able to implement an outgrower scheme with over 2,000 cassava famers successfully by supplying them with improved stems and linking them to agro input companies to ensure successful provision of chemical inputs. With the increased, quality supply, Winosa Farms has been able to develop new products for the Nigerian market and has exported three containers of garri to the UK since September 2018. [117] However, the challenges mentioned above indicate that work still remains to be done to ensure the profitability and sustainability of these enterprises.

The MVSE model seems to be also generating change in the market and, through VSEs, ensuring an increased supply of improved cassava stems. This is generating significant impact in the market. According to MADE Year 2 quarter 2 progress report, "The marginal increase in aggregate supply of cassava roots (due to many farmers adopting GAP) is stabilising the prices of roots. Now farmers are seeking alternative markets to sell to in large volumes, as such, VSEs are increasingly engaging with interested off-takers. "

[116] Interview with Kolode,Dada, Head of Sales & Distribution of Saro Lifecare
[117] Interview with Stella, MD from Winosa Farms.

4. EDO STATE INVESTMENT PORTFOLIO (ESIP) COMPONENT

4.1 Background and context

The ESIP component is particularly focused in Edo State. Situated in the south-south regional zone of Nigeria that covers the Niger Delta region, Edo was created in August 1991 when the defunct Bendel State of Nigeria was split into Edo and Delta States. It is referred to as "the heartbeat of the nation" as it is the gateway for people, goods and services moving from East to West and North to South in Nigeria. It is a nodal point in the nation's gas pipeline network and electricity transmission grid. Edo State has an estimated population of 4.2million people[118] of which around 1.5million live in or around Benin City, the state capital. The current Governor of Edo State, Mr. Godwin Obaseki, is on his first term (started in November 2016) and is recognised as a businessman with the experience and commitment to turn the tide on investment and employment opportunities for Edo State.

Agriculture is still the mainstay of the economy. Cassava, rice, yam, and maize are the major subsistence crops, while rubber, timber, cocoa, and palm oil are the main cash crops. Another characteristic Edo state is recognised for is creativity, design, music, crafts, and a rich cultural history. Perhaps most known for its bronze casting, Edo people seem to have a natural gift for the arts, from carvers, bronze casters, leatherworkers, potters, and weavers to writers, musicians, actors, actresses, and movie/TV producers.

On a less positive note, Edo state is also known as the epicentre of human trafficking in Nigeria which has unfortunately taken root across the State.[119] According to the 2017 report by the International Organization for Migration (IOM), as of March 2017 the number of women and girls arriving in Italy from Nigeria has risen from 1,454 in 2014 to 11,009 in 2016. This is an increase of almost 600%. IOM estimate that around 80% of these women and girls are sex trafficking victims. And despite various legal, regulatory, and enforcement attempts at the federal and state levels in Nigeria and in the targeted recipient countries abroad (e.g. Germany and Italy), once the women and girls are put into prostitution, there are very few exit routes. Human trafficking, leading to modern day slavery (MDS), has become a well-organised, lucrative and pervasive sector.[120]

Since the 2015-2017 financial crisis and the devaluation of the Naira, another category of victims are aspirational travelers. These are those who set out looking for normal, legitimate employment abroad, but who become trapped in a trafficker's net along the way and become victims. Most aspirational travelers are male illegal migrants, who set out to seek for jobs abroad. The most recent trends indicate that most of the illegal migrants are men, who were returned from Libya.[121]

118 National Bureau of Statistics, 2017 Demographic Statistics Bulletin
119 Zasha, James and T. Effiong "Support to Human Trafficking Prevention in the Niger Delta". MADE II inception, May 2018..
120 Zasha, James and T. Effiong "Support to Human Trafficking Prevention in the Niger Delta" MADE II inception. May 2018I.
121 Zasha, James and T. Effiong "Support to Human Trafficking Prevention in the Niger Delta" MADE II inception. May 2018.

In this context, MADE's ESIP component focuses on creating aspirational employment opportunities for vulnerable youth[122] and women in Edo state as a means to counteract the increasing prevalence of illegal international migration[123]. To achieve this, ESIP aimed to work closely with the Edo State Government and private sector "lead firms" who are interested in investing and/or expanding their operations in Edo state. During its inception phase, MADE initially envisaged working in six sectors: agriculture & agribusiness; entertainment; information communications technology; renewable energy; fashion and beauty; and wholesale/retail trade.[124]

4.2 ESIP interventions

4.2.1 Apiculture

Context and relevance

Domestic consumption of honey is estimated at 380,000MT per year, which far outweighs the local production capacity of about 2,000MT.[125] This unmet demand offers good opportunities and makes commercialisation of beekeeping a highly profitable business. Currently in Edo State, however, success rate with hive colonization is 60%, with average honey yield of 12L per hive per 9 months cycle, while improved hives can produce 20L per hive per cycle.[126] This is mainly due to poor information on the potential profitability of the business as well as on good beekeeping practices, high cost of improved beehives and limited access to high value markets.

Apiculture/beekeeping is a highly relevant sector for MADE to intervene. It is considered to be among the ventures with the potential to induce self-reliance, boost incomes and improve the livelihood of people, especially in the rural communities. Given the small land space required for beekeeping (landless farmers could use communal land), the high returns to investment and the nature of the work (which is not labour intensive), this is an attractive opportunity for returnees and potential victims of human trafficking.

Description of the intervention

In partnership with Edo State Exporters Cluster (a business membership organisation in Edo State), MADE supported a series of ToT trainings for 7 apiculture service providers (ApSPs) who then trained 2,096 beekeepers on best beekeeping management practices. Although some of the trained beekeepers already owned (traditional) hives, for the large majority it was the first time they were exposed to this business and were attracted by the high returns and potential ability to grow the business.[127] However, the key constraint for the success of this intervention remained the cost of hives (normally around NGN10,000 per hive), as farmers need to own at least 10 hives to be able to start producing more commercial quantities.

To address this, MADE built a partnership with Thrive Agric Ltd., a technology driven agricultural company that has a crowdfunding platform, and a large-scale buyer who was able to guarantee regular offtake from the farmers (A& Shine). Using its crowdfunding platform, Thrive Agric has been able to provide financing for beekeeping kits and equipment (including hives) to 50 smallholder farmers (10

122 For the purposes of this assessment, youth is defined as those men and women between 18-29 years old.
123 Illegal international migration is defined herein as those traveling with falsified documents to other countries with the intention of establishing permanent residence.
124 MADE II Inception Study Report. Main body, vol 1. DAI. August 2018.
125 Apiculture Intervention Justification Note – ESIP/MADE
126 Apiculture Intervention Justification Note – ESIP/MADE.
127 Interview with Kelvin Aghedo and Osifo Etiosa, new beekeepers and returnees.

during the proof of concept phase and 40 during the current pilot phase).[128] To ensure repayment, in this pilot phase Thrive Agric is providing the financing and purchasing the honey back from the smallholder farmers (that it then sells to A& Shine). It then shares the profits with the smallholder farmers and pays the apiculture service providers for their services.

Efficiency and effectiveness

In intervening in this market, MADE has aimed to address both the core and supporting functions. At the core, MADE has supported smallholder farmers to adopt and increase the productivity of beekeeping, while it has also looked for an off-taker to ensure all produce reaches the market. At the same time, it has intervened in three supporting functions: access to finance (through Thrive Agric), business development support services (by promoting the creation of apiculture service providers), and availability of equipment (by training carpenters on how to produce improved hives). This holistic approach aims to address the key aspects of the market system to allow the poor to participate in and benefit from the market. A few aspects worth noting are:

- Before implementing this intervention, MADE undertook a "proof of concept" intervention. This was a low scale intervention (with only 10 smallholder beekeeping farmers involved) that allowed all stakeholders to understand the model, assess its viability and allow for a more robust design for the pilot phase.
- Given the traditional lack of interest from commercial banks and the inefficiencies of the Development Bank of Nigeria (DBN), the option of using crowdfunding as the source of finance for smallholder farmers has been a good innovation introduced by MADE.
- Although the pilot will not have finished by the time MADE ends, it is likely that this intervention will achieve its output and outcome targets as Thrive Agric has the incentive to see it through.
- If the pilot confirms the commercial viability of the financing option and the role of business service providers, this seems an effective and valid approach to reach large numbers of farmers.

Potential for impact and sustainability

Given that the pilot phase will only finish after the end of the MADE programme, it is difficult to assess the change that this intervention will generate in the market. However, if the pilot is successful, this intervention has the potential to generate significant sustainable impact as laid out in the intervention's results chain.[129] The main reason for this is that Thrive Agric is planning to continue to expand its crowdfunding platform to this and other projects in the Niger Delta and has expressed interest to continue upscaling the beekeeping intervention if the pilot is successful.[130] Unlocking the access to finance constraint is pivotal for the upscaling and sustainability of this intervention.

Despite this potential, several challenges still remain. These include:

- The ability of Thrive Agric to continue to aggregate the honey in a cost-effective manner (in particular given that this is not their main line of business).
- The presence of A& Shine Honey as off-taker is important to galvanize Thrive Agric's investment.
- Farmers will continue to require support from apiculture service providers to maximize

128 Interview with Priscilla Ekhosayator and Friday Oghogho, Apiculture Service Providers.
129 See MADE intervention guide "Apiculture IG_09-11-2019_revised"
130 Interview with Obaka Ikani, Thrive Agric Ltd.

productivity and meet quality standards. MADE has had limited time to support the development of this market.

- The success of Thrive Agric as a crowdfunding platform relies on the ability to continue to develop a continuous mass of bankable projects.

4.2.2 Feed finishing

Context and relevance

Ruminant farmers in Edo State currently produce less than 30% of the annual requirement for sheep and goat meat, and this shortage is likely to grow further given the growing population. This is because the sector is characterised by the general lack of knowledge on modern animal husbandry practices resulting in poor feeding techniques, poor watering for animals, inadequate supply of feed and shelter, poor veterinary attention, poor extension support services and non-use of supplementary nutrient requirement for faster growth.

The supply gap presents an opportunity to raise about 225,000 sheep and goats per annum in a market worth over NGN10billion (around GBP21m.) just in Edo State. This opportunity should be attractive to small ruminant farmers that are involved in traditional fattening and help then transition to modern feed finishing, which combines the use of ruminant concentrates, good husbandry and veterinary attention to support the animals for rapid weight gain within the period of fattening. It also seems a motivating enterprise for youth, particularly due to the quick turnover per cycle.[131]

Description of the intervention

The design of this intervention followed some of the lessons learned during the Growth and Employment in States Programme Support of Meat and Leather Industry (GEMS1) programme that showed that the primary constraint to growth in production of red meat products in Nigeria was livestock nutrition. To address this constraint, MADE partnered with a lead firm (Animal Care Konsult) to make supplementary feed available up to the last mile by developing a network of para-vets in rural and peri-urban areas. Para-vets provided small ruminant producers access to knowledge and skills, as well as improved veterinary inputs and services. A total of 170 para-vets were trained by Animal Care by December 2018, who have since been able to train 6,416 farmers. At present, only 70 para-vets remain active.[132]

To support the process of training para-vets and mobilising farmer groups, MADE engaged with Edo Exporters Cluster, a business membership organisation. This organisation set up a 150-capacity small ruminant model ranch with no financial support from MADE and is currently in the process of training 28 youth on feed finishing with GIZ funding. MADE also linked Edo Exporters Cluster with an off-taker, Livestock 247, who has committed to purchasing 200 small ruminants.

Efficiency and effectiveness

131 Discussion with youth trainees during the visit to Edo Exporters Cluster demo farm.
132 According to the interviewees, during the selection process some of the participants did not have genuine interest in the feed finishing sector.

This is the intervention that is currently delivering the most results from the ESIP portfolio, with over 6,000 ruminant farmers that have benefitted from it.[133] And as the production cycle is short, it is likely that the number of beneficiaries will continue to increase until the end of the programme.

The approach adopted in this market is in line with ESIP's theory of change and applies a similar model to that developed under the market development component. It consists of the development of a network of service providers (linked to a lead company) that provide products and services to farmers. Service providers charge farmers fees and obtain a sales commission. At the same time, the feed company gets a broader market share and increased volume of sales. In fact, using para-vets is a particularly effective way to reach a large number of farmers as every para-vet is able to reach between 50-70 farmers (with three visits a year). In addition, para-vets are also able to sell their services for other value chains such as poultry, further maximizing the efficiency of the intervention.

In this ESIP intervention, however, the strengthening of para-vets has not been as strong as in the case of market development interventions. A case in point is the absence of the NAEC curricula in the training provided.

MADE also used a grant instrument to catalyse the lead firm's support and attract it to the Niger Delta. In fact, over the past years, three DFID funded projects (Growth and Employment in States Programme Support of Meat and Leather Industry (GEMS1), Growth and Employment in States Programme Support of Wholesale and Retail Sector (GEMS4) and Propcom) have worked with Animal Care Services Konsult to introduce new technologies to communities in Northern Nigeria. This included introducing ruminant feed as a new business line, supporting the establishment of para-veterinary shops and providing a range of solutions to farmers.

Potential for impact and sustainability

Although it is still too early to assess the potential impact and sustainability of this intervention, a number of factors seems to indicate that this intervention could generate significant change in the market. These include:

- Animal Care Services Konsult has significant experience implementing the current business model in other parts of Nigeria. They understand the challenges and are investing time, resources and personnel to develop adequate distribution networks in Edo State.[134] They seem committed for the longer term.
- The first instances of adaptation can be seen in this intervention. Following the high dropout rate of trained para-vets, Animal Care Services Konsult is now working with distributors to set up a credit facility for para-vets.[135]
- The engagement of Edo Exporter Cluster is likely to ensure continuity of intervention after the end of the MADE programme. This entity has embraced the value proposition of this feed finishing intervention and is committed to continue working with Animal Care Services Konsult and Livestock 247 in the future.[136]

[133] Although outreach numbers reported by the programme seem reasonable, the review team has doubts around the productivity figures reported. This reflects the weakness of the questionnaire used to capture this data.
[134] Interview with Semowo Olumuyiwa from Animal Care Services Konsult.
[135] Interview with Semowo Olumuyiwa from Animal Care Services Konsult.
[136] Interview with Rohones Peters from Edo Exporters Cluster.

4.2.3 Entertainment

Context and relevance

The Nigerian film industry (Nollywood) is globally recognised as one of the fastest growing entertainment industries in the world. It contributed 2.3% (NGN239billion) to Nigeria's GDP in 2016 and has kept growing since, helped by the development of multiple viewing platforms (tv satellite, online streaming, cinemas).[137] Edo State has a comparative advantage in the creative industry due to its rich cultural heritage, numerous stories, unique locations and availability of talented cast and crew locally.[138] The stories of the culture of the great Benin Kingdom presents epic content dating back to about 500 years ago. There are, however, systemic constraints that limit the growth in the market, including: poor perception of the Edo Hub production potentials; lack of sophisticated production equipment; financing; and distribution and marketing challenges.[139]

In addition to its economic value, the sector can help address the challenges of modern-day slavery and create valuable jobs for ESIP's target group - unemployed and underemployed youth in Edo State. This industry has the potential to generate huge employment throughout its value chain as there are few barriers to entry level jobs and there are many career options for those who persevere and prove themselves, making it a good aspirational sector.[140]

Description of the intervention

This intervention pilots the use of (ten) production improvement grants to support producers with up to NGN500,000 (around GBP1,000) to produce an improved quality movie. The grants will help increase the quality of production by allowing access to more sophisticated cameras and equipment as well as better trained and popular artists, increasing their marketability to high end online streaming marketers.

In partnership with Benin Film Academy, Prolens Movies Ltd, Edojobs and Edo State Chapter of the Directors Guilds, MADE has supported the launch of a competition to identify 10 good stories and scripts. All partners will then supervise the production execution to ensure that appropriate equipment and right mix of casts and crew are engaged, targeting interested and trained returnees and potential victims of human trafficking. The market for these films has already been secured, as DSTV Africa Magic and iROKOtv have committed to purchase the 10 movies that will be produced. The latter has also opened up a paid internship to select three female returnees from Edo State in film making.

In addition, with MADE's facilitation, the entertainment industry in Edo is developing a "Film in Edo" online entertainment web portal that will harmonise and promote creative activities, products, and practitioners.

Efficiency and effectiveness

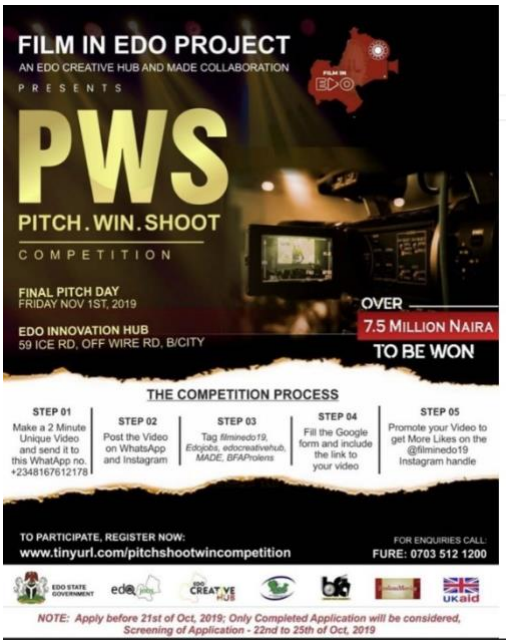
Given that at the time of this review the intervention is still at the phase when the grants are being awarded and shooting of the ten films is about to start, it is difficult to assess its efficiency and

137 Spotlight – The Nigerian film industry. PwC Nigeria. July 2017.
138 MADE (2019). Scoping and Baseline Study of the Entertainment Sector in Edo State.
139 MADE Entertainment Intervention Justification 2019 and round table with market stakeholders.
140 Nollywood is currently reported to have created around 1 million jobs.

effectiveness. It is likely, however, that the intervention will achieve its desired outputs in terms of exposing 500 potential victims of human trafficking to the sector (as it is a pre-condition for the grant) and attracting investment. Every producer needs to bring at least NGN1,250,000 (around GBP2,600) to access the grant of NGN500,000 (around GBP1,000) from MADE and NGN250,000 (around GBP500) from Edojobs.

In terms of effectiveness, it could be argued that a more systemic approach to this market could have been developed. The current approach is based on awarding grants for film production to ensure higher quality of results and a more secure market. However, other systemic constraints such as limited access to finance, poor quality of skills and training, or distribution and marketing challenges are only marginally tackled and will remain in Edo State after the intervention ends. Addressing all these challenges, however, would have required a significantly longer intervention time and more financial resources. Recent experiences of development projects intervening in this industry in Nigeria (i.e. the World Bank GEMS project) are a reminder of the challenges faced to generate changes in this market.[141]

Figure 6. Poster for "Film in Edo project"



Given the very limited time available for implementation of this intervention (which was actually approved in September 2019), the review team therefore believes that the approach taken in this intervention is reasonable and realistic. The programme is aiming to create a shock in the market (through the grants) in the hope that it will attract attention from investors and be the "tipping point" needed. Although this remains unlikely for the review team, this intervention does seem to have been able to generate some degree of coordination in the industry (including producers, directors, distribution companies, training companies) around the "Film in Edo" initiative. This increased coordination could help spur some change in the market.

Potential for impact and sustainability

Making Edo State a hub for Nollywood is a long-term investment. As discussed above, there are still many challenges that need to be addressed to generate the desired systemic change. The intervention, however, has started to place the seed for change in some respects such as signalling to distribution channels such as DSTV Africa Magic, iROKOtv, EbonyLife TV, and several cinemas that Edo State is "open for quality business". If this will be enough to attract more investment and generate significant change in the market remains to be seem.

From a sustainability perspective, the challenge remains that the existing coordination between stakeholders is lost after the programme ends. A positive aspect is that EdoJobs, the initiative of the government of Edo State, has committed a total of NGN2.5million (around GBP5,000) on top of MADE's contribution to the "Film in Edo" initiative. The long-term commitment of EdoJobs to the

141 The Independent Monitoring and Evaluation Project for the State Level Programmes (IMEP) - GEMS Lesson Learning Review. Final Report. Nov 2015.

sector could increase the potential sustainability of MADE's intervention and maintain the current momentum.

4.2.4 Waste to wealth

Context and relevance

Local plastic and nylon manufacturers use recyclable waste as an alternative to, or in conjunction with virgin raw materials to produce new materials due to the high cost of virgin materials leading to higher production costs. As a result, demand from manufacturers for recyclable products (especially pelletised) is high and surpasses the supply, even though Edo State generates an estimated volume of 2,000MT of solid waste daily, of which 20% is recyclable waste (i.e. 400mt/day).[142] The lack of supply is attributed to inefficient and informal waste collection, transportation and disposal practices.

At present, there are no formal/structural waste recycling activities in Edo and Northern Delta. The existing waste recycling market is presently largely informal with unregulated activities, which is operated mainly by small enterprises and waste pickers/collectors. As a result, formalisation of employment in this sector is likely to improve the quality (and remuneration) of existing jobs and create new ones for poor, vulnerable people. This will reduce the risk of this population falling into human trafficking networks (although they are not considered aspirational).

Description of the intervention

This intervention built on the lessons learned from GEMS4 intervention on waste management. MADE is engaging a waste recycling investor to institutionalise a system of business relationships with collectors and aggregators that will ensure adequate supply of nylon (polyethylene – PE) and plastic (polypropylene – PP) wastes from the areas where supply of the materials will be economically viable. More specifically, MADE has facilitated the entrance of a lead recycling firm, Natural Eco Capital, into Edo State. The company has already invested around GBP100,000 in pelletising and crushing equipment, hiring of personnel and a waste recycling factory at the Edo Production Centre in Benin City. More than 330 youths have been registered for the waste collectors and aggregators training, including returnees and potential victims of human trafficking from three senatorial districts of Edo and Northern Delta State.

Efficiency and effectiveness

This intervention is still at the inception phase and given that the pilot will only finish after the end of the programme, it is difficult to assess its efficiency and effectiveness. Still, a few relevant aspects should be considered:

- MADE has been able to effectively use a grant to de-risk the investment of Natural Eco Capital into the Niger Delta, catalyzing the firm's investment into Edo State rather than other potential states.
- The logic of the intervention is aligned to ESIP's theory of change, which aims to engage lead firms to invest in Edo State and provide employment opportunities to potential victims of human trafficking (i.e. waste collectors).
- Natural Eco Capital has already invested around GBP100,000 and is planning to expand its operations further. Given MADE's limited grant contribution, the return to the investment seem

[142] MADE Waste to Wealth Intervention Justification.

high.

Potential for impact and sustainability

Although there is no hard evidence available, this intervention shows potential for achieving large impact in terms of numbers. If the business model proofs to be profitable (and hence sustainable) at the end of the pilot phase, it is easily scalable on the part of Natural Eco Capital. This means that it can generate a large number of jobs and increase the incomes of many poor, vulnerable waste collectors. The challenge remains that this is the first time Natural Eco Capital implements this business model (i.e. working with individual waste collectors), although the firm's line of business is in recycling and they have already undertaken a sizeable investment.

The main challenge, however, remains that MADE will have ended before the end of the pilot. This means that there is a risk that Natural Eco Capital modifies its business model to a less inclusive one if it faces challenges when implementing the training and collection model for waste collectors, or if the proposed model is too demanding from a cash flow perspective.

4.2.5 Micro-retailing

Context and relevance

The wholesale retail sector is a large and growing part of the Nigerian economy and represented 16.9% of GDP in 2016.[143] In Edo state, like other parts of the country, the wholesale and retail sector has consistently been a major employer with small scale businesses being dominant. The sector also comprises varied demographics within the population including the poor and women who participate as shop keepers, shop owners or employees of medium to large size wholesale or retail outlets. These micro-retailers trade fast moving consumer goods (FMCGs) and other products on low volumes and narrow margins, mainly due to fierce competition and weak negotiating position.

Micro retailing is the main source of revenue for many families and increasing their incomes will reduce the probability of falling in the hands of human traffickers. This is particularly true for women, as they are overrepresented in this sector.[144]

Description of the intervention

This intervention aims to increase access of micro retailers to fast moving consumer goods (FMCG) at favourable prices and enjoy cost savings on transportation (which accounts for at least 30% of total costs incurred). To achieve this, MADE facilitated two main activities:

- Creation of Bulk Buyer Groups (BBGs) by micro-retailers who put money together to purchase FMCGs in bulk, at discounted prices, and receive these goods at collection points close to them.
- Engagement of FCMG companies in the micro retailing distribution model, including PZ Cussons, Unilever, and Multipro.
- Engagement of PayByana, an IT service provider that runs a digital mobile ordering platform for micro-retailers[145], giving them access to discounted prices and last mile deliverables. PayByana

[143] Nigeria Biannual Economic Update – Connecting to Compete. World Bank, April 2018...
[144] MADE Access to Market for Rural Producers Intervention Justification
[145] The PayByana platform also provides access to business management tools that allow for record keeping, tracking of inventory, and sales and business reporting.

has also signed agreements with FCMG companies such as Flour Mills, Caraway and Olam.

At present, 2,120 micro-retailers have been onboarded to the platform (90% of which are women) grouped in 29 BBGs. Seven FMCG companies and distributors have been onboarded, and orders worth over GBP10,000 have been made from FCMG companies.[146] In addition, PayByana has been providing trainings and engaging youth to act as agents between distributors and micro-retailers.

Efficiency and effectiveness

This intervention is currently in its pilot phase. The business model proposed by MADE includes PayByana, the technology company that has developed an innovative app that serves as platform for aggregating demand for FMCGs. PayByana is very engaged in trying to make the pilot work, mainly adapting the technology to address the needs and concerns of micro-retailers.[147] At the same time, FCMGs are willing to supply less than "commercially sensitive minimum quantities" to support this pilot phase. Given the level of adaptation still happen in this pilot intervention, it is difficult to assess how likely it is to achieve its targets.

Working in the retail and wholesale market is complex (as proven by the slow start of GEMS 4[148]) but MADE was able to identify a partner to test an innovative (albeit complex) business model that seems to have attracted the interest from FMCGs. The effectiveness of the intervention is directly related to two aspects:

- The ability of micro-retailers to effectively use the PayByana platform: using this platform requires having the right tool (i.e. a smart phone) and generate a certain level of a behavioural change amongst micro-retailers, which can be a slow process. In fact, some micro-retailers are still reticent to pay through the app, pay before receiving the goods, or are only willing to pay cash.[149]
- The ability to grow the base of micro-retailers in BBGs: at the start, the programme used BMOs to build the groups of buyers, but this approach did not work and FCMGs (through their sales representatives) and PayByana have become the main market players involved in building BBGs.

Potential for impact and sustainability

There still seems to be a lot of adaption happening in this intervention to try to refine the business model that could lead to replication and long-term sustainability. In addition, some industry service providers such as TradeDepot have expressed interest to enter the market in Edo State and use their own technology (app, website, direct phone calls) to aggregate deliveries from micro-retailers. Both these things show that the intervention is starting to generate instances of adaptation and expansion.

The main challenge, however, is the limited amount of time left for MADE. The review team believes that MADE's support is being instrumental to the implementation of the pilot and there is a real risk that when PayByana starts facing challenges to continue working with micro-retailers, and given that this is not their core business, it loses the motivation to continue into the next phase.

146 MADE team presentation on the micro-retailing intervention
147 Interview with Ayana Nwabueze, PayByana.
148 GEMS Project Completion Report. March 2018. Available in DevTracker.
149 Interview with Evelyn Bates, micro-retailer and head of BBG for Oshimili North LGA of Delta State. In her group, out of 150 members, only 23 were using the aggregation platform.

4.2.6 Access to market

Context and relevance

Despite Edo State government's renewed efforts to gain traction in addressing poverty in the rural areas through connecting rural producers to formal and sustainable markets, investment from off-takers is yet to take off in Edo. Large firms seem unable to coordinate and link up with large number of smallholders and, as a result, there are very few out grower models in Edo State. A key reason for this is the lack of an adequate environment for this model to succeed. This is linked to poor organisation of farmer communities (either in groups, coops, or clusters), limited knowledge of good agricultural practices, and poor access to affordable, quality inputs at the last mile.

Securing a market for farmers will allow them to reduce post-harvest losses, increase investment in their land and access improved inputs that will lead to increased productivity. As agriculture remains the main source of employment for the population in Edo State, interventions in this market are likely to increase the incomes of families exposed to human trafficking networks.

Description of the intervention

Since early 2019, MADE has been engaging with large producers/off-takers in other regions of Nigeria and trying to develop attractive business models that incentivise these firms to invest in Edo State. As a result of these efforts, in June 2019 the first pilots took place with Harvest Hill (off-taking 210MT of pineapple and 265MT of plantain worth NGN48.5 million (around GBP102,000) from 190 smallholders in highly human trafficking endemic communities) and Oklan Best Ltd (off-taking 4MT of garri, 5,000litres of oil palm and 4MT of groundnut).[150] The business models included:

- Local agents/field facilitators providing extension services such as supply of high-quality inputs and aggregation of output for processing or offtake (e.g. Hills Harvest, Elephant Group, Oklan Best).
- Financial inclusiveness for rural farmers, as farmers have to open a bank account and are given ATM cards to access proceeds from sale of produce to processors or off-takers (e.g. Hills Harvest).

MADE also developed outgrower models with other firms, which as a result have significantly increased their investment in Edo State. They include:

- Asanita Agricultural Processing Company Ltd. is investing in a 50,000litres a day ethanol production plant and 30 tons a day carbon dioxide plant using 280 tons/day cassava tubers, off taken from local small holder farmers as feedstock. The company has so far invested NGN43m (GBP738,553) and intends to invest up to GBP14.4m.
- Okomu is investing in expanding an old mill and setting up a new mill to process oil palm off taken from small holder farmers around the plantation. The company has invested NGN3.95bn (GBP8.5m) in the new mill and is investing NGN3.02bn (GBP6.5m) in increasing the processing capacity of the old mill.
- Novus Agro is investing NGN298 m (GBP641,000) on a mobile platform to connect field facilitators to its platform to access input and commodity markets and facilitate offtake transactions with farmers and offtakers.

[150] MADE II Year 2 Quarterly Report (July – September 2019)

- Elephant Group is investing NGN683m (GBP1.5m) in machineries, semi-processing, grating, hammer milling, pressing into cakes and other processes involved in cassava transformation into staple food. The company has already invested in NGN 93m (GBP630,100) in disbursement to farmers, land acquisition and clearing.

As a result of these aggregator models, as of October 2019 over 6,994 farmers (2,347 women) were able to access new markets, and more than GBP10 million have been invested in Edo State.

Efficiency and effectiveness

This intervention has generated the largest numbers in terms of outcome and output of any ESIP intervention and also seems to offer the greatest cost-effectiveness (MADE's contribution has been GBP63,226 and the companies' investment is anticipated to be GBP10.2 million). As shown in the earlier section, MADE's investment has been able to leverage sizeable investments from these firms. MADE has played an important role reaching out to these firms (leveraging on the connections made through the market development component as well as experiences of other programmes) and signalling that Edo State is open for business. At the same time, a strong communications campaign from the state government and the reputation of the State Governor as someone who is private sector oriented, seems to have convinced firms to invest in Edo State rather than other states.

The programme is also using this intervention to test different aggregation models and try to identify the most efficient ones. The most efficient ones seem to be those implemented by lead firms that already have experience working with smallholder farmers. This is the case of Harvest Hill, an agricultural product trading company based in Lagos that has started to off-take pineapple and plantain and provides ATM cards to farmers to provide input credit and make payments. Havest Hill is also investing into a semi-processing factory of pineapple to reduce transport costs from the Niger Delta to Lagos, where they have their processing factory (into juice).[151]

Potential for impact and sustainability

Although this intervention just entered the scale up phase, its theory of change is well tested, and it will most likely achieve the desired results. Most lead firms are well established companies that have implemented similar business models in other regions of Nigeria and therefore have a good understanding of the challenges faced when working with smallholder farmers. Their investments are also sizeable and demonstrate commitment in the long run. Although the reviewers would argue that it is still too early to experience crowding in, the programme reports that other firms like Farm Crowdy, FarmForte, Barseks and Co. are interested to copy the aggregation and offtake business model.

4.2.7 Skills development

Context and relevance

Edo State has embarked on several employment creation and skills development programmes, notably the EdoJobs and EdoCreate. The private sector has also responded to the opportunities, setting up private skills development and training centres/agencies. However, this is yet to produce the desired results as skilled workers /entrepreneurs still have challenges in getting jobs or marketing their products and services. These skills development and training centres have successfully trained

[151] Interview with Ayodeji Rotimi, Hills Harvest.

beneficiaries but continue to have limited successes in linking them to desirable, high value markets for their products or services.

These sectors (e.g. hospitality, textiles, cosmetology) are considered aspirational and can provide job opportunities to MADE's target population, particularly returnees and other vulnerable people.

Description of the intervention

In this market, MADE aimed to promote alternative livelihood opportunities by strengthening the capacity of partners and service providers engaged in skills development to adopt more inclusive models by providing linkages to market. This was attempted through three partners:

- Genius Hub: an NGO that trained 40 trainers under a ToT approach and then trained over 2,000 local producers on cosmetology and cleaning products. However, given the challenge of finding a market, Genius Hub invested in a cosmetology input store that is used to ensure access to good quality inputs and provides a space for aggregation and distribution of final products.
- Society for the Empowerment of Young Persons (SEYP): this social organisation is committed to the empowerment and protection of women and has a vocational skills training centre. With MADE support, it is providing training on black soap production and fashion (tie-dye) and identifying ready markets for its products (e.g. Noke Arts Gallery for its fashion products).
- Amena Academy: this private firm provides training courses in the areas of hospitality, housekeeping and stewarding. Together with MADE, it developed a new training curriculum, certified 27 students with the new curriculum and designed a new business model that removes the barrier of training fees for quality skills training by giving the trainees the opportunity to repay a part of the fees once placed in jobs.

Efficiency and effectiveness

Intervening in the skills market is complex and the programme has had limited time to adequately identify and design interventions with a strong systemic angle. As a result, the three current interventions seem to be more about providing livelihood options to MADE's beneficiary population and trying to explore if there is a market for these skills.

The review team has not been able to identify a coherent, systemic angle of MADE's interventions in this market, which is supported by the lack of a vision for this market. As a result, it is not clear how effective this intervention will be in terms of achieving the desired results and generating change in the skills market.

Potential for impact and sustainability

Given the low output and outcome numbers, it seems difficult that any of these interventions is able to gather scale and start to generate systemic change in this market. It is true, however, that the three implementation partners have embraced the need to "create a market" for their graduates (i.e. placing opportunities), but it is difficult to see how crowding in can start to happen.

5. FINDINGS - CROSS CUTTING AREAS

5.1 Gender

Gender was mainstreamed in MADE I during the inception/design and implementation phases[152], allowing the programme to successfully meet the 50% target set by MADE's business case.

The main factor that seems to explain the high female participation rate is MADE's market selection. The five selected markets have a very significant presence of women[153]: in cassava, women account for around 60% of producers and processors; in fisheries, women constitute 99% of the smokers and 98% of people involved in the wholesale and retail trade in fish products are women; women tend to be the ones responsible for small livestock like poultry; and in agricultural inputs, 30% of crop farmers are women. But this percentage is significantly higher in some crops like vegetables, which MADE specifically included to ensure higher overall female participation in the agricultural inputs market.[154]

The programme collected and presented gender disaggregated data at the intervention and portfolio level, ensured that partner agreements included gender targets, and reached out to female-led business membership organisations such as Quintessential Business Women Association to publicise MADE's interventions and increase women's participation by mobilising their members to take advantage of the MADE interventions. They also tried to make sure that trainings took place at times that would be convenient for women.[155]

The review team, however, found no evidence of any specific strategies devised into any market development or ESIP interventions to identify and monitor behavioural change with regards to gender stereotypes affecting women's participation in the target value chains, access to assets and influence over decision-making related to economic resources. This could be particularly relevant, for example, in the poultry sector. Village chickens are a way of storing household asset value, so should the flocks grow substantially, it is possible that male household members might decide to reconfigure gender traditions of chicken ownership and control in their own favour.[156]

Instead of intervention-focused strategies or activities, MADE addressed gender-related behavioural change at the more macro level through the creation of village-level Gender Talk Groups (GTG). These were gender forums or discussion groups of gender champions (women and men) discussing issues inhibiting the equitable development of the agribusiness value chains in the Niger Delta and coming up with solutions and ideas to overcome them.

These communities of practice, which included women-focused civil society organisations, were designed as a gender hub for shared learning and advocacy. MADE developed the GTG guide and provided grants to four local NGOs across four states to pilot it. The four NGOs included: Bridge of Hope Development Centre (BOHDC), Rivers State; Disabilities Awareness Welfare Development & Rights Initiative (DAWDRIN), Imo State; Green Concern for Development (GREENCODE), Cross River State; and Nigerian Women in Agricultural Research and Development (NiWARD). Over 20 meetings

152 Gender Mainstreaming Strategy & Implementation Plan. MADE, no date.
153 MADE Business Case – Assessment of Value Chain Options. DFID, April 2014.
154 MADE team presentation to review team.
155 MADE team gender presentation to review team.
156 MADE Value Chains: Preliminary gender analysis. Fisiy G., 2013 mentioned in MADE Niger Delta Conflict Analysis. December 2013. The Propcom evaluation showed no significant shift of control of this asset, although there was a small male oriented shift in decisions regarding the use of profits generated from poultry sales.

took place across these four states during MADE I.[157]

During MADE II, the programme streamlined the GTG methodology (including modules on nutrition, climate change and modern-day slavery) and continued to work with local NGOs to make GTG part of their regular operating procedures. However, as of September 2019, only two NGOs (Bridge of Hope and DAWDRIN) continue to implement the GTG. The programme is currently trying to hand over GTG coordination to DAWDRIN as cofacilitator to continue with the activities when MADE closes out.

Despite the programme's efforts, the sustainability of the proposed business model for the GTG is not clear to the review team. Local NGOs will struggle to finance this intervention with no additional funding, which is why the programme is supporting them with proposal writing workshops to try access funding from other donor agencies.[158] and remains to be seen if GTG will continue to operate beyond the life of the programme.

5.2 Influencing of stakeholders

One of the innovations in MADE's logframe is the introduction of an output indicator measuring the number of development agencies, support service providers (private, public, and NGO) and private investors that change their approach to engaging with the poor in the Niger Delta region.

Table 11. MADE output 2 indicators

Indicator(s)	MADE aggregate target	Achieved (Sep 2019)
2.1 Number of investors adopting additional pro-poor market development approaches (cumulative of direct and indirect)	24	21
2.2 Number of development agencies and NGOs influenced to implement additional market development interventions that attribute to the programme (cumulative of direct & indirect)	19	19

Note: Data has been obtained from MADE II Year 2 Quarterly Report (July – September 2019)

Looking at output 2.1, MADE has been able to engage successfully investors as well as NGOs and other private sector firms in adopting a pro-poor market approach that is new to the region. This is a significant achievement in a region where the patronage of large multinational corporations has limited the ability of the private sector to fulfil its potential and the modus operandi is direct provision to farmers.

Although the review team could not check all the investors that MADE claims have adopted a more pro-poor market approach, it has managed to collect evidence from investors through key informant interviews. The evidence includes:

- Turner Wright, a veterinary pharmaceutical company (VPC) adapted its model from the use of village level vaccinators employed by the company to an entrepreneur village level vaccinator model and also broke the bulk of its products to adapt them to the needs of poor farmers.
- Zygosis, a VPC in the poultry market, started to import small dose vials of thermo-stable vaccines of 100, 200, and 500 doses targeted at smallholder farmers in the Niger Delta.

157 Meeting with MADE gender expert.
158 Comments received from M&E Manager upon submission of first draft of final evaluation report.

- Winosa Farms, a cassava SME processor, procured Contec agricultural inputs and established 30 additional demo plots in Delta to strengthen its outgrower scheme model, reaching more farmers.
- Saro, a large input company, adapted the business model introduced by MADE (which focused on organising demonstrations) and created the "Dr Saro" model of structured agricultural extension officers to promote their sales.

These examples confirm that MADE has been able to persuade these programme stakeholders and beneficiaries to adopt the programme's vision for change (i.e. a pro-poor market approach). As a result, these companies have developed new technologies, practices and approaches that are aimed at smallholder farmers and allows them to benefit from and participate in the market in a more efficient and effective way, increasing productivity and incomes.

When assessing output indicator 2.2, the review team was impressed by the level of understanding that several co-facilitators (i.e. private service providers engaged by MADE to support implementation of specific interventions) showed of the market systems approach. MADE worked collaboratively with PIND through the latter's Capacity Building for Local Empowerment (CAPABLE) initiative launched in 2013. Within this framework, MADE and PIND co-designed CAPABLE M4P, a training programme to introduce the market systems approach to local experts, civil society and business membership organisations to improve the quality of service delivery to communities.

Through CAPABLE M4P, in 2015 MADE trained 12 leading market development local practitioners (including attending the Springfield training), who then subsequently trained 42 local NGOs and private sector entities.[159] Several of these entities then became co-facilitators for MADE, which allowed them to apply the learnings, experience how it works in practice, and see its results.

As a result, several organisations embraced the market systems approach and applied it across all their operations (including non-MADE operations). Some examples include:

- CLICE Foundation: a co-facilitator for smoking kilns intervention, has continued to use the approach when implementing the "Barracks Women Economic Empowerment Programme" funded by the military.[160]
- The Ark Shore Konsult: a co-facilitator that received CAPABLE M4P training and recently launched the Farmers Investment / Incubator Network (FIIN). FIIN provides a holistic set of fishing services and products to farmers interested in aquaculture for a fee. Services include, for example, renting of ponds, facilitating access to credit and market linkages. They are currently providing aquaculture training to farmers with financing from a feed company.[161]
- Self Help & Rural Development Association (SHERDA): the main co-facilitator in the palm oil intervention has fully adopted the market systems approach in the way it operates with farmers in its programmes financed by other donors.[162]

These examples demonstrate that MADE has been able to find an efficient and effective way to embed the market systems approach in these organisations. Although the potential impact is difficult to quantity, these organisations represent a "coalition "of market systems practitioners that will remain operating in the region even after MADE finishes. By continuing to operate in this manner, it is possible

159 MADE I Completion Report. DAI, March 2018.
160 Interview with Comfort Oy, Lead Coordinator for CLICE Foundation.
161 Interview with Dr. Badejo Ayodeji, CEO The Ark Shore Consult. www.arkshore.org
162 Interview with Dr. Samuel D. Dare.

that other organisations will also adopt the market systems approach and continue to generate change in this market.

5.3 Climate change and environment

Almost 60% of people in the Niger Delta depend on the natural environment for their livelihood. Destruction of the environment through oil spills and gas flaring has made the poorest communities vulnerable, and fishing and agriculture have been affected—seriously in some areas—by pollution related to oil extraction.[163] Therefore, protecting the natural environment of the Niger Delta is closely linked to the protection of the economic wellbeing of its citizens.

During phase I, MADE focused on introducing products, services or technologies that were more environmentally friendly. Some areas of work included:

- Development of new technologies that are more environmentally friendly than the traditional ones. This was, for example, the case of the small-scale processing equipment developed under the palm oil intervention, which used a steam process that reduced the use of water; or the introduction of improved smoking kilns that use less firewood compared with traditional smoking technologies.
- Increasing access to new bio safe products in the region. This was the case of Contec Global Agro Limited, an input company that had no presence in the Niger Delta but interested in sales of alternative bio-inputs to farmers in the region in the light of environmental concerns associated with use of agro-chemicals. Contec introduced bio-safe pesticides to treat farm pest problems and other common pests and diseases which were popular amongst vegetable farmers.
- Introduction of practices that support environmentally-friendly management of natural resources. This included, for example, the introduction of best management practices in palm oil farming, focusing on how farmers can use sustainable practices in oil palm plantations and re-utilise waste materials from mills and plantations.

In addition, during phase II MADE developed specific interventions under the ESIP portfolio that aimed to support the environment. Namely, this included the Waste 2 Wealth intervention, that focuses on the recycling of plastic and nylon.

5.4 Collaboration with PIND

MADE's business case stated that "*The Foundation for Partnership Initiatives in the Niger Delta (PIND) […] has also embraced the M4P approach and structures its activities into four distinct programmes covering economic development, capacity building, peace building and analysis and advocacy. It focuses on testing and piloting projects for further replication by others. Combined with vital experience and presence on the ground, this makes it an ideal partner for MADE. The partnership will enable both PIND and MADE to benefit from the synergies resulting from shared resources, analysis and expertise.*" [164]

During the review process, the review team identified a number of areas of collaboration between PIND and MADE. The coordination between both programmes seemed to allow for a more efficient

[163] Securing development and peace in the niger delta: a social and conflict analysis for change/ by Paul Francis, Deirdre LaPin, Paula Rossiasco. Copyright by the Woodrow Wilson International Center for Scholars Printed in the United States of America. 2011.
[164] Market Development in the Niger Delta (MADE) Business Case. DFID Nigeria. June 2014.

use of resources, an increase in the footprint of certain interventions, and improved sustainability of the programme's outcomes. This alignment seems to have been already sought by the original design of MADE by making sure that it used the market systems approach, included some overlapping markets and located both programmes in the same offices in Port Harcourt.

In addition, the timing and pace of both programmes seemed to reinforce change in the region. PIND started three years before MADE with a more long-term, strategic approach while MADE was more focused in terms of high targets and ambitions. This difference in focus meant that PIND was able to gradually develop a base while MADE was able to quickly generate the outreach. At this point in time, the fact that PIND will also continue also means that it will be able to take over facilitation of certain MADE interventions and further support the crowding in phase in several markets.

Some areas of collaboration between MADE and PIND include:

- **Sharing of market intelligence and co-creation of learning pieces**: MADE used PIND's value chain analyses as the basis for developing their sectoral strategies as well as other reports such as the gender assessment. They also co-created learning pieces such as the paper on the "Effect of the Naira's Devaluation on Agricultural Value Chains in the Niger Delta" (April 2017) or the experience sharing meeting with service providers and co-facilitators (December 2018). A key factor for this cross learning was due to both programmes having the same technical advisor.
- **Coordination, synergies and cross learning on the sectoral/geographical approaches to interventions in the three "common" markets (aquaculture, palm oil and cassava)**: MADE and PIND designed complementary approaches either by using different entry points to a specific market (e.g. in the palm oil market, MADE worked with medium scale commercial farmers while PIND worked with higher capacity mills) or agreeing a geographical split (e.g. MADE focused its aquaculture interventions on Rivers and Akwa Ibom and while PIND focused in Edo and Delta). They also reinforced each other's work (e.g. PIND designed the original aquaculture training curriculum but MADE introduced the commercial service provider angle) and learned from each other's interventions to further improve (e.g. PIND focused on improving the productivity of fish farmers but MADE saw the importance of developing a market for aquaculture service providers).

  As stated by MADE and PIND's technical advisor[165] *"there was also an aspect of competition between the two projects, where they were often trying to figure out how to out innovate the other.*" For example, PIND initiated the links to the feed companies for the ASPs; MADE then innovated to have the ASPs drive the process; which PIND then copied.

- **Co-design and implementation of the CAPABLE M4P initiative:** MADE and PIND co-designed, co-funded and co-implemented the CAPABLE M4P initiative, a capacity building programme to mentor organisations in the Niger Delta on the use of market systems. Staff from both programmes was involved in co-development of the training curriculum, delivering the training, mentoring the participants, and providing logistical support. Through the CAPABLE M4P course around 70 businesses and NGOs/development agencies have been trained on market systems and 12 trained organisations have been engaged as co-facilitators to implement interventions in the Niger Delta

[165] Note from Bill Grant dated October 2019 "Big Picture issues for MADE II evaluation"

using the market systems approach (most of them in the fisheries and cassava markets).[166] This training and mentorship initiative transcends the Niger Delta as the training course has been shared with Propcom (and used by them), GEMS 4 staff, and Enhancing Nigerian Advocacy for a Better Business Environment (ENABLE) staff, who are now a resource to the industry as a whole.

- **Co-design and implementation of Media for Development (M4D) intervention:** in the second phase of MADE, the programme and PIND jointly initiated the Access to Agriculture Information Intervention (AAII), a three-month pilot aimed at increasing access to agricultural information for smallholder farmers using radio programmes and applying a market systems approach.
- **Participation in the DEMAND Alliance:** MADE was a member of the DEMAND Alliance, created by PIND in 2012 to enhance collaboration and partnership in the Niger Delta between like-minded donor agencies and the programmes they were implementing. They also collaborated in organising the Niger Delta Development Forum (NDDF) from 2014 to 2018.

[166] These firms are: cassava (Green Code, Life and Peace Development Organisation, Kazung, Kolping Society of Nigeria, CARA Development), fisheries (Better Living, Valueshore, Manpower Development and Environmental Protection Initiatives, Capacity Enhancement and Manpower Development Foundation, CLICE Foundation), Palm oil (SHERDA) and feed finishing (Exporters Cluster).

6. COMPARING INTERVENTIONS IN MADE AND PROPCOM

DFID Nigeria funded two market development programmes; one in the Delta (MADE) and one focussing on the Northern states (Propcom Mai-karfi). As part of this review, and following a longitudinal evaluation of Propcom, DFID asked that the two programmes be compared. The purpose of this comparison is to provide insight into the strength of the market development approach generally, and within the Nigeria context specifically, as well as to highlight distinctions and differences in market development intervention design and implementation, potentially offering new lessons for DFID and the market development community.

Both programmes developed interventions in a variety of agricultural markets.[167] In keeping with the market development approach, the programmes facilitated private sector involvement in these markets, rather than following a process of direct delivery.

This section of the review focuses specifically on four market level interventions of the two programmes, identifying similarities and differences. This comparison does not compare reach, impact or cost of the interventions, but rather the design and implementation processes of the interventions. MADE interventions are ongoing, so commentary comparative impact, reach, sustainability or VFM would be premature.

A limitation to this comparison process is that, while we are familiar with both programmes, the evaluation process of Propcom had already concluded at the time of writing.[168] As a result we relied heavily on programme data and reports as well as data and reports from the evaluation. We were not able to access Propcom for any additional data.

It is worth noting that the two programmes, while using the same market development principles within their theory of change employed different processes and strategies to design and implement their interventions. The vastly different socio-economic operating environments of the two programmes meant that while the programmes both applied market development principles, they needed to respond to the market constraints in a manner appropriate to their settings.[169] This is sound practice, reflecting the programmes' need to adapt to and find applicable solutions to market conditions within specific contexts. However, for the purposes of this report, these differing environments and varied responses means that direct comparisons between the programmes are not applicable.

The interventions we have chosen to compare are all inputs. While both programmes implemented interventions at post-harvest or processing level, these are not, in our opinion comparable. When looking at the portfolios of both programmes, we tried to isolate interventions that were directly comparable, and to which we had sufficient evaluable data. Three of the four are directly comparable,

167 Propcom Mai-karfi also looked into at least one non-agricultural market, soap and handwashing, while the second iteration of MADE began exploring potential interventions to address the root causes of modern-day slavery.

168 All references to Propcom in this section draw on evidence presented in the final evaluation report - *Upper Quartile, Independent Evaluation for Promoting Pro-poor Opportunities in Commodities and Service Markets (Propcom) Maikarfi Programme, Northern Nigeria, October 2018*. Available on DevTracker - http://tiny.cc/b1vvhz

169 Differences between the geographic areas of the programmes are, for example, the population density of the two areas and the fact that northern communities focus largely on subsistence farming, while households in the Delta practice subsistence farming, there is a significant focus in the southern areas on oil as an economic panacea.

focussing on the same value chains, while the fourth is comparable in the sense of its objective – to increase adoption of new technology.

The interventions we compared are:

- **Poultry**. Both programmes worked in poultry markets, specifically trying to increase access to poultry vaccines.
- **Technology access (tillers (Propcom) and fish smokers (MADE))**. Both these interventions sought to introduce technology to the market systems with a view to increasing productivity or reducing waste, to positively impact incomes.
- **Feed finishing**. Both programmes, building on the foundation of an earlier programme, looked to increase small holder farmer access to feed finishing for ruminants.
- **Spray service providers**. Both programmes had a range of interventions dealing with agricultural inputs and crop protection products. This comparison speaks specifically to the intervention increasing access to appropriate and correctly applied crop protection inputs.

Each of the interventions is presented below. We start with a brief overview of the intervention and the market constraints it was designed to overcome, before comparing interventions between the two programmes. After presenting each of the four comparisons, the section concludes with some closing remarks.

6.1 Poultry

Poultry keeping in Nigeria is common, with almost every household keeping a least a handful of birds as a low labour, low capital-intensive income stream. The importance of this common asset grows exponentially amongst poorer households. The household consumes the birds, gives them as gifts and uses them as a form of financial security for small, unexpected expenses or shocks. Poultry related diseases are rife, and relatively inexpensive to safeguard against. NCD is one of the common viruses affecting these birds. This is particularly true in northern Nigeria, in the aftermath of the annual haramattan.

An improvement in the poultry productivity and safe keeping through improved access to veterinary medicines would significantly impact household incomes, especially amongst the poor.

Intervention description

Both programmes developed interventions focussed on increasing access to the NCD poultry vaccination, with the programmes cooperating in the implementation of their respective models. In 2013 Propcom initiated facilitation with the National Veterinary Research Institute (NVRI) to develop a sufficient supply of the NCD vaccine. A training curriculum for vaccinators developed and adopted by Propcom was later adapted by MADE.

The interventions were designed to overcome the lack of awareness and access to an appropriate NCD vaccine, overcoming market constraints related to both knowledge and last mile access. By increasing the resilience and reducing the mortality of the flock, it was assumed that this would improve farmer (or household) poultry productivity, positively impacting income. Each of the programmes identified private sector partners for the distribution and application of the vaccine through distributors and village-based vaccinators.

In addition to offering vaccinations, the MADE intervention also equipped the village-based vaccinators to provide other value-added poultry related information and products such as feed.

Intervention comparison

A notable difference between the two programmes is the target audience for the interventions. Documentation from both programmes speaks to targeting rural poultry farmers, however on further investigation, Propcom targeted household flocks of less than 40, while MADE targeted farmers with flocks smaller than 400 birds[170], despite recognising that the average household flock size in the Delta is 11 birds. This clearly illustrates a difference between the programmes in their own understandings of smallholder farmers, or perhaps their anticipated scope of the intervention, (MADE states that the increased flock size was in response to private sector partner interests). It is also possibly reflective of the differing economic environment in which the two programmes worked. Propcom worked with poultry farmers and processors (who had larger flocks) in a later intervention, (poultry processing) but the programme reported on these interventions separately.

Another difference is the offerings of the models. While both models aimed at overcoming the problem of last mile distribution, the Propcom model focussed only on the provision and administration of the NCD vaccine, while the MADE deliberately provided both the vaccine with training as well as additional value-added services to offer to farmers and households. In Propcom[171] the village-based vaccinators' businesses responded to market demand and evolved into providing additional services for their clients including para veterinary service to other livestock as a result of participating in the Community Animal Health Worker (CAHW) initiative. In fact, poultry vaccination services accounted for a small percentage of their income.

The form of earning also differs between the programmes. MADE partners experimented with different models; first with an employee model, which was abandoned in favour of a commission-based structure. Vaccinators in the Propcom model, in contrast, are self-employed, marking up vaccines to earn a profit, (this mark-up differs from vaccinator to vaccinator and the same vaccinator also offers different prices to clients depending on location, distance travelled and number of vaccinations), offering additional inputs services and advice, (which they source and on sell), and scaling up through the appointment of their own agents.

The evolution of the distribution networks also differed between the two programmes. The MADE model evolved into the design and implementation of a networked pyramid hierarchy, from private sector partners to Village Level Distributors to Village Vaccinators, who then either then provided vaccinations or a vaccination service to farmers. This was in response to a perceived need by the programme and its partners that farmers required access to a range of inputs and advice. In refining this model, MADE built the offering of additional different services into its model and focussed its energies on the improvement of the poultry farming sector. To achieve this MADE identified and trained Master Trainers and provided refresher technical training and business training for the vaccinators through the adapted the Nigerian Agricultural Enterprise Curriculum (NAEC) [172]

[170] MADE state that there was a gradual increase in flock size, in response to the demands of private sector partners. Private sector partners wanted to target flocks of 1000 birds, "MADE tailored the intervention toward smaller-sized flocks, as 97% of households surveyed by the programme beneficiaries kept flock sizes of 1 to 400 birds." MADE, Poultry Intervention Case Study

[171] The Propcom results chain speaks to collaboration between to private sector companies, one of whom would provide additional products for the vaccinators to on sell. It appears that this did not happen, and the vaccinators initially concentrated only on vaccine distribution and service.

[172] This Master Trainer / Trainer and NAEC business skills training model was replicated in the MADE aquaculture and cassava interventions.

empowering vaccinators to provide advice and training related to Good Poultry Keeping while running a sustainable business.[173]

In Propcom, these multiple levels of the distribution system were identified in the results chain (distributors and vaccinators) but in practice appeared to develop organically, rather than under the direction or input of the programme. Further, in Propcom, the more entrepreneurially minded village-based vaccinators hired additional staff as demand increased and began acting as vaccine wholesalers to their own downstream networks. A similar model now appears to be gaining traction in MADE.

Another variation which might have influenced the development of the two models was the identification and partnering with the private sector partner. Propcom identified and partnered with Agriprojects Concept International (ACI) which is primarily a purveyor of scientific veterinary equipment and pharmaceuticals. MADE initially partnered with ACI and later partnered with two other companies; Turner Wright[174] which focuses on animal health, medicine and inputs including feed additives, and Zygosis which markets and distributes veterinary medicines. The different capabilities and offerings made by each of these companies, may have influenced the ongoing development and implementation of the interventions. This contrast is seen between the investment made by the MADE lead companies in the vaccinators, providing access to refrigeration units and motorcycle transport. In comparison, the Propcom vaccinators, while clearly identifying and vocalising these needs, were not seen as an investment option by the Propcom lead firm.

6.2 Technology access

These interventions focussed on increasing beneficiary access to technology with a view to increasing levels of productivity, thereby increasing profitability. Each of the interventions focussed on the empowerment of women; by design in the case of Propcom and by market circumstance in the case of MADE.

Fish smoking description

As part of its interventions within its aquaculture cluster, MADE tried to address market constraints related to information and awareness of fish smoking as well as improving and widening access to improved and more appropriate smoking technology. The business case identified the constraints as high post-harvest losses, inefficient traditional smoking methods and inadequate and costly improved smoking technology. Interventions to address these constraints were envisaged to reduce spoilage losses, increase efficiencies and capacity. However, to achieve this MADE also had to address constraints in the manufacturing of the smoking kilns and access to finance.

MADE worked with fabricators to manufacture new smoking kilns that were more appropriate to the smaller smoking batches needed by their beneficiaries and implemented a Technology Adaptation Grant (TAG) which provided hidden subsidies for the first wave of new buyers. This moved the technology into the market place, demonstrating its benefits in a real-life commercial setting with a view to create sustainable demand even after the TAG was exhausted.

[173] As an aside, it would be interesting to determine to what extent, if any, farmers having to pay for best practice training impacted on the copying of best practice, an assumption that underpins scale and reach in market development thinking.
[174] Propcom and Turner Wright entered into discussions regarding the potential to pilot a distribution model in the North, based in a retail audit conducted by the programme. The two parties were not able to settle on contractual terms for this pilot.

Tillers description

Propcom found that women faced difficulty in preparing their own land for cultivation, as this was often prepared after the land owned by their male relatives. Further the women had difficulty accessing tractors (issues included those related to size of plot, expense and prioritisation) to assist in the land preparation, forcing them to prepare the land by hand. This was time consuming and expensive if hiring additional labour.

The programme enabled cooperatives of small-scale women farmers to buy motorised tillers to cultivate the members' own lands reducing time investment and land preparation costs and possibly earning additional income from providing tiller services to other farmers.

Intervention comparison

A first difference is the strategic choice of the interventions within the programme. MADE's smoker intervention was part of a cluster of interventions focussed within the aquaculture sector. The programme was already working with or preparing to work with fish farmers to increase their efficiencies and improve their farming practices. This provided them with some traction in terms of accessing potential beneficiaries. While the beneficiaries of this intervention were not limited to fish farmers, established trust with these farmers allowed MADE to leverage these relationships and networks.

The Propcom intervention was part of the programme's larger mechanisation cluster and, given the focus on women's cooperatives, was part of the programme's overarching gender strategy. However, while Propcom was working with tractor dealers as private sector partners in another strand of its mechanisation cluster, it had to identify new partners with which to partner for this intervention. In terms of identifying beneficiary farmers, the programme also worked with a new partner organisation, the Small-scale Women Farmers Organisation in Nigeria (SWOFON) to identify women's cooperatives to be part of the intervention. As a result, while the tiller intervention fit within larger mechanisation cluster, it was in fact, a standalone strand, working with different partners, trying to replicate or adapt the tractor model.[175]

While the final beneficiaries in both instances were individual women, in the Propcom case mobilising and working with women's cooperatives added an extra organisational level with which the intervention had to engage. In implementation, this meant that decisions needed to be made by the group, or at least by the group's executive, possibly slowing down the process. It is also likely that this extra layer of organisation may have affected the repayment process, discussed below. In contrast the fish smoking intervention worked with individual fabricators and smokers, with individuals responsible for their own decision making.

Both interventions identified access to finance as a constraint which beneficiaries would face in increasing their access to the technology. MADE initially tried to link fabricators, farmers and financial institutions and to facilitate a financial relationship between the three. However financial institutions proved reluctant to take on what they perceived as high-risk clients. MADE overcame the constraint by trying to "prime the pump" – using non-sustainable funding mechanism over the short term to

[175] Propcom did implement complementary interventions within the same cluster in other market sectors, notably within poultry farming.

demonstrate the market suitability of the solution, with a view to stimulating market-led demand. MADE implemented a Technology Assistance Grant (TAG) which allowed smoker fabricators to manufacture and sell smoking kilns at a reduced price to early adopters. As a result, the technology made its way into the target communities, increasing interest and, as the impact became apparent, stimulating demand. While the TAG did not extend to all potential clients or customers, it stimulated a market led demand for the kilns, forcing potential buyers to invest or facilitate investment in their own businesses, a key principle of the market development methodology, underpinning its sustainability.[176]

The Propcom solution to access to finance was to link women farmer groups directly with the Nigeria Incentive-Based Risk Sharing System for Agricultural Lending (NIRSAL) programme of the Nigeria Central Bank, to provide an 80% guarantee to the power tiller vendor. On receiving this guarantee, the cooperatives then had to make a 20% deposit to secure their purchase. NISRAL was slow to commit itself leading to the delivery of the first batch of tillers missing the planting season. Repayments followed a variety of models and repayment performance generally was poor. Further the tiller vendor was responsible for managing the loans and repayments and had little capacity for this.

However, in both cases the reality of limited access to finance and its own set of constraints and resultant effects, impacted the interventions. Propcom experienced this effect in the poor repayment rate and even in the struggles some cooperatives had in finding the 20% deposit. MADE saw the impact in the poor uptake of smokers in the poorer communities, with the price putting the smokers beyond these beneficiaries' reach.[177]

The two programmes sources technology from different sources. The Propcom tillers were imported from China, and as a result the intervention was adversely affected by the 2015 severe devaluation of the Naira. The source of the technology also impacted on the availability of parts and the readiness and accessibility of trained mechanics to maintain and repair the machines. In contrast, the smoker technology was available locally but underutilised due to information asymmetry and capacity gaps. MADE collaborated with NIOMR to train locally based fabricators to replicate the improved smoking kilns developed by the Institute. As a result, fabricators have been able to make adaptations to the smoker model to suit local client requirements.

6.3 Feed finishing

A significant majority of Nigerian households raise ruminants (cattle/goats/sheep), making it a key source of both household nutrition and income. Decreasing availability and quality of feed has negatively impacted both the quality and fattening time of the livestock. This in turn affect household nutrition and income as well as resulting in family members, particularly women and children spending increasing periods of time collecting water and feed for household livestock.

To meet an increasing demand for meat from a growing population both programmes developed interventions to assist small holder farmers and households improve the nutrition of their livestock as well as to shorten the fattening time. This would allow SHF to sell livestock more often (up to 4 times)

176 Although as stated elsewhere in this report a number of kilns bought without MADE support may have received support from other development programmes and the military, calling the level of sustainability into question. Interview with Fabricator in Imo, who made reference to the Youth Agricultural Entrepreneurs Programme (YAGEP) and PIND.
177 As mentioned elsewhere in this report, the same restriction appear to affect increasing access to palm oil small-scale processing equipment.

during any calendar year, increasing productivity, profitability and income.

Intervention description

The interventions sought to address supply side constraints (information, access and skill) in this market focussed on providing information and inputs regarding the value, cost and informed and skilled use of the product as well resolving the “last mile” distribution problem for feed manufacturers.

Intervention comparison

Both Propcom and MADE built on the feed finishing foundation laid by the DFID funded GEMS 1 programme. MADE was also able to draw on some of the lessons and expertise from Propcom. Both programmes aimed for broadly the same objectives and faced broadly the same challenges. However, there are differences in their intervention models.

Both programmes worked with established private sector companies as suppliers of the animal feed. In the case of MADE, the programme established a relationship with one of the three companies which had partnered with Propcom and incentivised their expansion to the Delta using a grant mechanism.

In both cases, the private sector partners trained paravets and extension officers in the advantages and relevant skills for famers to use feed. These agents then acted as last mile distributors to areas which the company had not yet managed to access. Both programmes worked with state agricultural ministries to identify suitable paravets and extension workers for training. For the most part, trained paravets and extension officers in both programmes were employed public servants.

Both programmes experienced significant rates of attrition from their trained agents, 92% attrition for Propcom over the course of the programme and 59% attrition for MADE within 10 months of the training.

Over the longer term the Propcom model expected that the agents would on sell feed to the farmers, benefitting from profit margins and wholesale discounts on the product. In addition, this model incentivised agents to train and sell with a once off bonus after their first sales milestone. The model offered agents one day of training. They in turn offered one day of training to the farmers. The companies paid for expenses (transport and refreshments) related to both sets of training.

Propcom trained agents were mainly public sector servants who, given their established job function, were less incentivised to supplement this with commission-based sales. Agents in the MADE model were also public servants but earned sale commissions and supplemented their income by offering a range of products and services to farmers for a cost, not simply limited to feed. MADE agents could further supplement their incomes by offering products and services related to other livestock, such as poultry. The MADE model also speaks to increasing paravet skills to be able to provide farmers advice on animal selection, feed finishing, vaccines, other inputs and the best markets to sell livestock. At the time of writing MADE had not introduced any business skills training, such as the NAEC curriculum, as in their other, similar interventions.

Propcom agents were offered no credit for their purchases and had to wait until their existing stock was sold to order new stock, resulting in delays. MADE’s private sector partner offered agents stock on credit.

MADE has also engaged with downstream stakeholders and facilitated linkages between the agents and the Edo Exporters Cluster, a business membership organisation and livestock off-taker. This relationship links the small ruminant farmers with domestic traders and livestock aggregators.

6.4 Crop protection products and services

Agriculture is a significant contributor to household earnings in both programme focal areas. However, for a variety of reasons agricultural productivity is low. One of these causes is the vulnerability of crops to inadequate and inappropriate use of Crop Protection Products (CPPs – including herbicides, insecticides and fungicides). Further, the incorrect use of pesticides also poses health and environmental hazards.

Intervention description

Both programmes engaged with private sector companies to partner with them in facilitating increased SHF access to crop protection products. However, given the harmful effects of some of the CPP products, it was also necessary to ensure that these were correctly and safely applied to crops. This created a need to develop crop protection services. This was done through the training of individuals as Spray Service Providers (SSP). These are individuals who have received technical training on how to identify basic pests and diseases, and the methods for the prevention and treatment, have and use the full personal protective equipment safety kit when spraying.

There were several constraints which the interventions were designed to overcome. Fungicide and pesticide use were relatively low in some of the areas, not because of a lack of knowledge or access, but because of imitation products penetrating the market, leading to a loss of confidence in the products and their application. In addition to overcoming this constraint of reputational risk, the interventions sought to increase access to high quality products, make these products readily available, and increase knowledge and capacity regarding the application of the same.

Intervention comparison

Propcom partnered with CropLife, a professional association representing international pesticide manufacturers and selling their products. CropLife was responsible for the recruitment, training and mentoring of SSPs while Propcom monitored the process. The trained SSPs were provided with a set of personal protection equipment and given access to retailers stocking high quality CPP products for application.

In its initial intervention, Propcom targeted youth with no previous spraying experience, to be trained as SSPs. However, a programme study of this intervention reported that there was some displacement of an existing community of SSPs who were often self-taught. The study recommended that these individuals be recruited for the next training.

MADE, learning from the Propcom experience and partnering with the same private sector stakeholder, implemented a very similar model. Their intervention trained existing and experienced SSPs to provide quality crop diagnosis and sell appropriate crop spraying solutions to farmers. In a second iteration, the MADE intervention also worked with a network of agro-input dealers to ensure that the high-quality products were readily available for the SSPs.

While Propcom offered a single day of training to the SSPs, MADE's five-day training is likely to have been more holistic and comprehensive, covering a wider set of related topics.

MADE partnered with other companies including Saro and Syngenta, two established CPP companies, and worked with them to expand their services into the Niger Delta and to improve their distribution services to smallholder farmers. These lead companies worked with input retailers and SSPs to strengthen their levels of knowledge and increase the capacity regarding products, safe handling and appropriate use.

6.5 Concluding remarks

A market development programme at its simplest, designs interventions to impact on three levels: at the support market, the core market and the enabling environment or regulatory level. While different markets and value chains as well as different interventions may have different areas of emphasis, the programme often engages with the support market through the private sector partner and other institutional, corporate or public sector stakeholders. These stakeholders then engage with the core market, sometimes directly or sometimes through a series of agents. The result of this engagement is determined at the beneficiary level – the impact in the pocket of the small holder farmer or the financial status of the household.

To conclude this section, we will speak to the comparisons above using the first two levels as well as making observations at the programme level. It is not appropriate to compare the beneficiary impact for reasons outlined in the introduction to this section. The comparison also did not examine any interventions with the programmes might have initiated at the regulatory level.

Programme level

At a strategic level it is encouraging to see one programme building on the foundation of another, as in the case of MADE learning from Propcom and GEMS and cooperating with other similarly minded programmes such as PIND and MARKETS. In some instances, Propcom built on both an earlier iteration of itself, as well as drawing from other DFID funded programmes like GEMS.

Despite inter-programme competition, which is outlined elsewhere in this report, MADE appears to have contributed to the development of a broader network or eco-system of donor programmes that are similarly minded regarding the market development approach. The DEMAND Alliance set up in 2012 provided this forum of which MADE was an active partner. In contrast, Propcom often acted in isolation, with few programmes both adopting the same approach and operating in the same areas.

Support market level – private sector partners

Both programmes developed sound working relationships with private sector partners. MADE appeared to work with a greater number of partners in each of the interventions, spreading both their implementation risk as well as giving opportunity to explore variations in the pilots. While operating in a fluid and volatile environment, MADE used the variety of partners available to its programme, or leveraged programme funds to entice a partner to expand their operations and work with the programme. Propcom, possibly as a result of its location and its operating environment, was often constrained in its choice of partners, in fact at times having to drop an intervention as a result of a partner either deciding not to pursue an intervention or curtailing operations within a certain state.

The range of partners available to MADE allowed the programme to develop an "intervention eco-system" where complementary strengths of partners could be drawn on, allowing for an intervention where the whole was greater than the sum of the parts. The interventions compared here did not allow Propcom this level of complementarity, although it did leverage partner complementarity when presented with the opportunity.[178] This inclusive, collaborative approach might also have impacted on the individual stakeholders' understanding, appreciation and application of the market development approach, contributing to the sustainable implementation of market development thinking. The private sector partners for example, may have been able to observe changes in other private sector companies, with whom they are not in direct competition, and on reflection, reiterate their own responses and models. In contrast, Propcom was often limited in its choice of potential partners, in many cases having to invest heavily in building internal private sector capacity.

This breadth of opportunity also allowed MADE to develop market linkages directly related to its intervention, both complementary linkages (as seen in feed finishing agents offering advice and inputs on poultry for example) and downstream linkages, where options were raised for fish smokers to work with fish farmers. The value of these linkages does not lie solely in whether they are successfully implemented, but rather in the exploration of currently latent value chain possibilities, allowing for greater market systems integration and cooperation in the future.

Support market level – agents and intermediaries

At another level of the support market – between the implementing partner and the beneficiary – the programmes also differed in their interventions. While Propcom and MADE both offered technical training to agents within their interventions, MADE offered two important variations:

- MADE developed a network of trainers, offering a ToT and developing Master Trainers, who were taught to sell the training to farmers, in several of its interventions. This created another level of business development, and possibly allowed for a greater reach of the training within and beyond target communities. It is possible that this was a feasible option for MADE, working in areas with a greater population density.
- MADE tended to offer a cluster of support to the agents, ranging for technical support to business skills training. This latter offering was possibly in response to realising the agent's need for support in running and managing a business operation. Propcom did not perceive this need in any of its interventions and instead agents tended to develop and manage their own businesses and business networks.

It is not possible, in the scope of this review, to exactly define why and how MADE managed to consider and iterate on its intervention models, to facilitate these changes. Programme documents, however, speak to MADE staff being very involved in the field in an observer capacity, allowing them the opportunity to see the challenges and, on reflection develop appropriate responses. While this is admirable, there is a fine line between this level of observation and moving into the area of direct delivery, and the fact that MADE staff appeared to walk this line is commendable.

Access to finance (to facilitate greater implementing partner, agent and smallholder farmer activity) remains a challenge for both programmes in most of the interventions mentioned here, as well as in

[178] WYG, Independent Evaluation for Promoting Pro-Poor Opportunities in Commodities and Service Markets (Propcom) Mai-karfi Programme, Northern Nigeria, Evaluation Report – Electronic Warehousing Receipt Intervention, October 2017.

other interventions within both programme portfolios. While Propcom tried to circumvent this problem in one intervention by partnering with NIRSAL, the tiller intervention faced ongoing challenges as a result of lack of capacity to manage loans, within the implementing partner. In one of its interventions, MADE perceived the problem slightly differently and offered limited subsidies to smoker fabricators in an attempt to stimulate market demand. It is not clear if this strategy has worked in a sustainable fashion. Interventions in both programmes have also addressed the access to finance constraint by working with partners who in turn have offered credit to agents.[179]

In summary, both programmes have identified market constraints, developed interventions appropriate to their market contexts, experienced difficulties and, reflecting on these challenges, have responded either through refining an approach or recognising that the proposed approach is not suitable to the context, or the time.

[179] In Propcom this was in the electronic warehousing intervention, in MADE it was the feed finishing intervention.

7. MONITORING AND EVALUATION

7.1 Key findings

The key findings identified during the review include:

- The programme has implemented the DCED Standard well to support its operations and has used it as its overall framework for monitoring and evaluation purposes.[180] The use of the DCED standard seems to have been better streamlined in the second phase of the programme, although there are still areas of improvement (e.g. more regular use/update of results chains, quality of collection methods).

- The programme has experimented with some innovative data gathering processes, such as the use of Geographical Information Systems, to map programme footprints (intervention locations, equipment installations, service providers, etc) and beneficiary population from outreach to impact.

- The programme has gathered a wealth of outreach data from co-facilitators and partners that have been instrumental in establishing beneficiaries' demographics more appropriately and allowed the team to easily identify directly beneficiaries for sampling purposes.

- MADE's evaluation and survey methodologies remain weak despite the programme's efforts to strengthen them. A number of issues have been identified by the review team, but their specific impact on MADE's results is variable. This is considered further in the concluding remarks subsection.

    - Sampling strategy: although MADE claims to use a multi-level sampling technique, this does not seem to be the case for the review team.[181] Rather, MADE samples once from the population at the beneficiary level, and then follows suit from within that sample with those who experience changes in behaviour, productivity and impact. As a result, the process used could deliver less power[182] than what is needed to get statistically significant, accurate estimates for productivity and income change.

    - Survey instruments: although there has been some progress in the quality of survey quantitative tools designed by the programme, the review team still considers them to be insufficient when it comes to assessing productivity and income. Although the review team acknowledges the challenges of implementing productivity and income surveys for any development programme, when reviewing these tools, the review team found issues of potential response bias[183], poor design of the questionnaires[184], and limited number of

[180] See MADE's "DCED Checklist (Self-Assessment13Nov 2019.doc"
[181] See note "Notes on Sampling" provided by the MADE team on 14 December 2019.
[182] "Statistical power" is the likelihood that a study will detect an effect when there is an effect there to be detected.
[183] For example, in survey questionnaire *MADE II Outcome Survey (Dec 2018) - Ag Inputs Cassava*, question F1 states: Would you say that access to these inputs within your area has improved over the last two years, or it has stayed the same? (1=Improved; 2=Stayed the same). A decrease in results is not an option.
[184] For example, in survey questionnaire *Draft impact survey questionnaire - Agric inputs v1 -17-11-17* farmers are asked to report on productivity for the past 3 years. Asking for information three years back creates significant recall bias which has a significant impact on data quality. Also, the question should rather be framed in terms of seasons rather than years.

questions to triangulate responses and ensure accuracy of responses[185]. In addition, the presence of many open-ended questions added a significant amount of complexity when processing data and ensuring its quality.

- Adoption rates: in the opinion of the review team, the methodology used to estimate adoption rates leads to an overestimation of these rates. This is the result of MADE adopting the bare minimum of sub-practices required to count a practice as fully adopted (at least 3 sub-practices) without considering the relevance of the sub-practice, how the sub-practices work together, or what is the minimum number of sub-practices required to ensure that there will be productivity increase.

- Net attributable income change (NAIC): although there is very limited literature available regarding best practices on NAIC calculations[186], in the opinion of the review team, the methodology used to calculate the NAIC is not accurate. Before the programme extrapolates income increases to the larger group, it calculates NAIC based on a sample of farmers who have changed behaviour and experienced productivity increases. This manner discounts any farmers who may have changed behaviour, but not experienced an increase in productivity, or who might have in fact, have experienced losses as a result of changed behaviour. In our opinion, this method skews the calculation in favour of increased incomes and may therefore present overestimated figures. A more accurate approach would have been to calculate the NAIC using a more inclusive sample of farmers who have changed behaviour, whether or not they have experienced an increase in productivity or income.[187]

- MADE has been able to capture indirect beneficiaries and assess their direct contribution to the programme's results, which in the views of the review team is a much better approach than that applied by other development programmes, namely the use of multipliers. However, it is not clear to the review team why the productivity and income gains of indirect beneficiaries should be the same as in the case of direct beneficiaries. The programme should have a good case to justify the approach taken.

- MADE's data storage and filing systems have been deficient. This has resulted in the review team getting conflicting or incomplete data and requiring various iterations to try and get reliable information/results.

- There is no clear process to collect systemic change data. The programme reports include reference to systemic changes at the market level by using the Adopt-Adapt-Expand-Respond (AAER) framework.[188] However, there is no systemic collection of this data (e.g. through a systemic change log) so the only source of information seems to be the quarterly and annual reports. Further systematisation of the process would reduce the risk of important changes being missed.

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185 For example, in survey questionnaire *MADE II Outcome Survey (Dec 2018) - Ag Inputs Cassava* question B1 asks about size of land adopting new practices (with no reference to any specific crop) and section D asks about increase in productivity in that farmland linked to cassava (but no questions around the size of land). What if farmers do intercropping?

186 There isare currently no agreed methodology / best practices in the literature on how to calculate NAIC.

187 The programme have maintained that their methodology, in fact, under reports NAIC. However, the review team maintains that this is skewed in favour of positive income results. "The Development Assistance Committee (DAC) defines impact as "the positive and negative changes produced by a development intervention, directly or indirectly, intended or unintended' (OECD 2010). **Capturing all effects, rather than just focusing on the positive or intended effects**, is imperative for all programming, but is especially relevant to M4P programmes due to factors of systemic, large-scale change and complexity." Source: ITAD, Review of M4P Evaluation Methods and Approaches, June 2013. (emphasis added).

188 http://www.springfieldcentre.com/wp-content/uploads/2014/06/2014-03-Adopt-Adapt-Expand-Respond-Briefing-Paper1.pdf

- Non-logframe impacts generated by the programme are not being captured. MADE mainly focuses on reporting the numbers required by the logframe (which are very quantitative) but could also report on other indicators that are relevant for market development purposes and the programme is also achieving. The case in point is job creation. The review team found that MADE's support to one SME processor in the cassava market generated 12 new FT jobs and that a fisheries' ASP had generated another 15 FT jobs. Collection and presentation of these unintended benefits would strengthen MADE's results.

- The VFM strategy and VFM calculations have not been conducive to guiding programme operations. VFM indicators are relatively high level and given that they are not broken down by sector, it is very difficult to use them to prioritise and make strategic decisions.

7.2 Concluding remarks

The findings above suggest that MADE's results are less robust that what they could have been from a quantitative perspective.[189] This is particularly the case when talking about the number of farmers that have adopted the practices introduced by MADE.

Some suggestions from the review team in this area include:

- Review the methodology to calculate the programme's adoption rates and take into consideration a more realistic minimum number of sub-practices. This could be done at the market level, which would allow for a more realistic approach. The motivation for the approach taken should be clearly reflected in the programme's written documentation. If the approach is revised, it should then be applied to MADE's overall numbers.
- Provide substantial motivation of the rationale behind the programme's current methodology to calculate the NAIC. This would strengthen MADE's number but also contribute to the wider literature on the use of NAIC in development programmes.
- Undertake a robust end line programme survey that addresses the methodological limitations mentioned above and supports the quantitative findings presented by MADE so far.

[189] Note that in spite of the assessment, the review team has continued to make use of the MADE's reported figures for the purposes of this review.

8. CONCLUSIONS AND RECOMMENDATIONS

8.1 Conclusions

The main conclusions of the MADE review are:

At the overall programme level

- MADE has met most of its logframe targets in a very difficult operating environment, reaching over 485,000 beneficiaries[190] and changing the attitudes of partners and co-facilitators. It has demonstrated that the market systems approach can be successfully implemented in fragile and conflict-affected environments. MADE's results have been achieved in the deeply poor, highly fragile and conflict affected context of the Niger Delta, a region where resource transfer schemes have been the norm.

- The timing required to achieve systemic change is longer than the timeframe originally designed by DFID (MADE I). The extension of MADE's market system component for two more years allowed the programme to achieve the expansion and response phases, and maximised DFID's return on investment.

- MADE has demonstrated to be a very adaptive programme, that has successfully introduced innovations and has achieved change in a number of markets. A case in point has been the development of the service provider model, where service providers saw a market opportunity and took advantage of it by formalising their businesses, creating partnerships and expanding their businesses into other related sectors.

- As of September 2019, 46% of MADE beneficiaries with increased incomes are women (against a logframe target of 50%, which had been achieved at the end of MADE I). MADE's achievements in this area are linked to the high representation of women in the selected markets rather than the design of exclusively targeted women interventions.[191] More focused activities in trying to increase the participation of women in selected markets (particularly through partners and in the ESIP component) would have helped to further increase MADE's gender footprint, especially at the outcome and impact levels. The impact and sustainability of the GTG interventions remains unclear.

- MADE was able to operate successfully and adaptively in a very challenging macroeconomic and policy environment that led to significant alterations in the competitiveness of the markets, products and services. Events such as the naira devaluation opened new opportunities for MADE products (e.g. higher cost of import feed opened opportunities for local producers) and required the programme to adapt rapidly.

- MADE has effectively used a range of instruments to achieve its objectives. Output based grants have been successfully used to de-risk investment of private sector companies into new geographic areas and new client segments (e.g. Turner Wright in poultry, Saro in agro inputs, Eco Nature in

190 This figure needs to be confirmed following the comments on the Section 7 regarding outreach calculations. However, even applying different outreach definitions, the achievements of the programme will still remain large.
191 This finding is in line with "Independent Evaluation of Propcom Mai-karfi – Draft 2018 Final Evaluation Report –June 2018".

Waste 2 Wealth). Technology adoption grants (TAGs) have also been used to stimulate the demand of new technologies and kick start the market for some technologies.

- The programme's quantitative results would be more robust with stronger monitoring and evaluation systems, data collection/processing methodologies, and impact evaluation approaches. Further justification should be provided by the programme on how adoption and NAIC calculations have been made (and adjustments be introduced if required). It is important that DFID places adequate resources to support the monitoring and evaluation function in programmes, particularly in market systems programme, given the complexity of capturing and attributing change.

- MADE was able to effectively collaborate with other donor programmes like PIND, GEMS1, GEMS4 and Propcom to share knowledge, identify best practices and adopt interventions relevant for MADE's success.

- MADE's value for money strategy and value for money indicators were not conducive for the programme to use them as a programme management tool and inform decisions around allocations of resources.

- MADE has created a wealth of communications and knowledge management material, including in Facebook, YouTube, Instagram. There are also a number of learning papers and case studies that contain important lessons for DFID's programming in fragile and conflict-affected states as well as for the wider market development community. This wealth of information should be widely distributed and remain accessible after the end of MADE.

<u>At the market development component level</u>

- The short duration of phase I of the programme (especially for a market systems programme) limited its initial ability to consolidate impact and systemic change potential (although phase I targets were achieved). The extra two years of MADE II allowed the consolidation of MADE's market system interventions. It seems clear that facilitating and embedding systemic change takes longer timescales than those typical in traditional programmes.

- The second phase of the programme allowed MADE's market development component to show what is the real scale up trajectory of the interventions started in MADE I and the crowding-in and replication phases. MADE II was instrumental to consolidate the interventions, showcase how change could be achieved in the markets, and generate crowding in and replication.

- Although close to 75% of the programme's quantitative results came from the agricultural inputs and cassava market interventions, the programme has been able to generate change in other relevant markets such as fisheries (where the programme has had a high penetration rate) and the market for business services (developing a network of business services providers working with input firms to support smallholder farmers in livestock and fisheries).

- The programme was not able to tackle the access to finance constraint, which poses a significant limitation in the scale up path and wide adoption of interventions in several markets, including in the fisheries and palm oil sectors (e.g. high cost of new technologies) and cassava (e.g. to allow SME processors to expand their outgrower schemes). Some access to finance related innovations were introduced in the ESIP component (crowdfunding for apiculture), but these are still marginal.

The programme should have placed more efforts to address access to finance constraints.

- The programme struggled to apply the market systems approach when working with more dispersed, very poor populations, particularly when located in dangerous areas (e.g. introducing smoking kilns in riverine communities). More in-depth understanding of working with dispersed or isolated communities[192] and very poor populations (who have limited assets) could be useful for DFID programming elsewhere and for the wider market development community.

- MADE has been able to instil the market systems approach effectively in a number of organisations in the Niger Delta, including NGOs, service providers and private sector companies. This was very successfully done through training and mentoring in partnership with PIND. As these organisations continue to apply the market systems approach in their other operations (including those funded by other donors), further change will be generated in the market. DFID programmes should place more attention in instilling the market systems approach in local service providers.

<u>At the ESIP component level</u>

- The very short duration of the ESIP component (two years) has meant that interventions have just been able to complete the initial pilot phase and it is unlikely that they will achieve the desired impact and change. The output and outcomes targets set by DFID in the business case are very ambitious given the timeframe.

- Ending this component within two years is a missed opportunity as the programme was using innovative approaches to deal with human trafficking and modern-day slavery issues. The potential experience gained from such a component, properly timed, could have implications across DFID's FCAS and wider footprint countries.

- The ESIP component was able to identify a number of relevant initiatives and engage relevant partners in a relatively short period of time thanks to the in-depth understanding that the team had about Nigeria. However, most partners currently engaged could be considered "low hanging fruits", therefore making the crowding in phase much more challenging to achieve.

- Most interventions are currently at the pilot phase and still need support to ensure that they can consolidate, adapt to ensure sustainability and then generate crowding in. It is essential that a clear and solid exit strategy is designed and implemented to avoid that progress and learnings dissipate.

- Under the ESIP component, MADE has been able to work closely with a Edo state government and support them in the revival of the Edo Innovate Hub and Edo Production Hub. This seems to have been possible as the right conditions were in place, namely a state governor that is very supportive of the private sector.

[192] A recent evaluation of Samarth, a DFID funded a market development programme in Nepal, stated "Poor infrastructure and its geography prevents easy transport and communication between [beneficiaries] impacting on this tendency to copy, with implications for programmes' ability to [achieve] scale." ITAD, Samarth-NMDP Programme, Final Evaluation Report, July 2019.

8.2 Recommendations

Stemming from the above conclusions, a number of lessons can be learned to inform future DFID programming. To ensure programmes achieve impact, the following suggestions have appeared from the review. These include:

- **The market systems approach has proven to be a viable approach for intervening in conflict affected environments** like the Niger Delta. Despite operating in a context of thin markets, insecurity, and extreme patronage, MADE has successfully introduced new business models to the private sector, that has adopted and adapted a number of them. DFID should therefore contemplate applying a market systems approach in other more complex settings, such as in humanitarian contexts, recognising that the operating dynamics of each of these settings differs.

- **Achieving systemic change and sustainable impact takes time in the case of market systems programmes, and these time-lags need to be taken into account** when designing DFID programmes. In the case of MADE, the timing required to achieve systemic change was longer than envisioned in the business case. In addition, longer timeframes allow DFID to vastly improve the VFM of its programmes (as was the case following the two year extension of MADE).

- **Logframe targets should not only focus on reaching large numbers of beneficiaries but also focus on the quality and sustainability of the interventions and results**. The MADE logframe was very focused on number of beneficiaries (at outreach, productivity and income) but did not fully consider the extent and depth of this reach, which in turn impacts on the success of the programme in building sustainable systemic change.

- **Developing a portfolio of interventions and accepting the risk to fail (and therefore the need to adapt its interventions) is key to ensure overall success of any market systems programme**. MADE operated in a number of markets and dropped those with less traction or where anticipated results did not match programme priorities (e.g. finished leather) to focus on those that had most potential to deliver the desired results. The reality was that around 75% of MADE beneficiaries where generated from interventions in the cassava and agro inputs markets.

- **The use of grants or subsidies is fully justified when designing a market systems programme and should be a tool made available to the implementers.** The case of MADE has demonstrated that given the right conditions (for example, in thin markets), grants can be used as smart subsidies to incentivise the private sector to undertake new investments and kick start a market. However, it is not yet clear the extent to which the grants contributed to systemic change.

- **Embedding the market systems approach in local institutions (including service providers) should be part of the strategy for market development programmes.** MADE has been able to develop a cadre of market systems experts (including service providers and private sector firms) that bought into the market systems approach and can continue to expand the use and impact of this approach in the Niger Delta. This training, however cannot be ad hoc as extensive formal and on the job training was needed to ensure stakeholders fully understood how they had to address and solve problems through a market systems lens. Adequate resource allocation would be required to effectively implement this recommendation.

- **Collaboration between development programmes adds value**. The collaboration of MADE with PIND, as well as the links with Propcom Mai-karfi and other DFID programmes in Nigeria, has allowed for increased efficiency of MADE's interventions. For this to happen, however, it needs to be made explicit in the design and specific activities/objectives need to be developed.
- **MADE has generated a wealth of information in the form of reports, case studies, learning papers that should remain accessible after the programme ends** to practitioners, researchers, government, donors and other stakeholders. The need to make all this information readily available and accessible also includes other DFID programmes such as GEMS1, GEMS4 and Propcom.

ANNEX A. STAKEHOLDERS INTERVIEWED

INTERVIEWS UNDERTAKEN IN PHASE I

Market	Name	Firm/Entity	Role
Fisheries	Comfort Oyanga	Clice Foundation	Co-facilitator
Fisheries	Emeka hinweze	Imo Metals	Market actor (fabricator)
Fisheries	John Paul Uzuokwu	Aquaculture Service Provider	Service provider
Fisheries	Badejo Ayodeji	Ark Shore Consult	Co-facilitator -service provider
Fisheries	Stanley Okereke	Value Sure Resources	Co-facilitator
Fisheries	Momoh Samuel	Aquaculture Service Provider	Service provider
Fisheries	Glory Adonase	Aquaculture Service Provider	Service provider
Fish/Poultry	Jennifer Christopher	Bridge of Hope Foundation	Co-facilitator
Poultry	Edidiong Ini Job	Village Level Dealer	Service provider
Poultry	Mrs. Adetutu Sokefun	Village Level Dealer	Service provider
Poultry	Dr. Andrew Amonu	Industrial Dynamics	Market actor (farm)
Poultry	Peace Opara	Amo Farms Sieberer Hatchery Ltd.	Lead firm
Poultry	Dr. Adebayo Kolade	Zygosis Nigeria Limited	Lead firm
Poultry	Dr. Moses Ayetan	Turner Wright Limited	Lead firm
Agri-inputs	Sunny Ameh	CU Head, Syngenta	Lead firm
Agri-inputs	Nnemaya Eneremadu	Cara Development Foundation	Co-facilitator
Agri-inputs	Kolade Dad	Saro Lifecare	Lead firm
Agri-inputs	Babajide Adajun	PM SSP Projects, Croplife	BMO
Agri-inputs	Benjamin Eze	Harvest Field Technical Ltd.	Lead firm
Agri-inputs	Chief Mike Udo Akpan	Lead farmer	Beneficiary
Agri-inputs	Friday Etim	Sprayer Service Provider	Market actor, beneficiary
Agri-inputs	Arthur Peter Arthur	Agro-retailer	Market actor, beneficiary
Agri-inputs	Jonathan Adoga	Sprayer Service Provider	Service provider
Agri-inputs	Ekponwa Uyo	Agrodealer	Market actor, beneficiary
Agri-inputs	Friday Agbo	Syngenta Representative	Lead firm
Agri-inputs	Mike Udo Akpan	Cocoa lead farmer	Beneficiary
Agri-inputs	Elder Isaac Akpan	Cocoa farmer	Beneficiary
Cassava	Blaise Okezie	Kolping Society of Nigeria	Co-facilitator
Cassava	Stella Ereyukomhen	Winosa Farms	SME processor
Cassava	Emmanuel Oyibo	Master Village Seed Entrepreneur	Service provider
Cassava	MaryAnn Paul	Master Village Seed Entrepreneur	Service provider
Palm oil	Beauty Amiller	Nursery Private Operator	Market actor
Palm oil	Sylvanus Nworgu	NPO and oil palm producer	Market actor
Palm oil	Kechinwer Elekwa	Palm oil miller, farmer	Market actor
Palm oil	Samuel Dare	SHEDA	Co-facilitator
Palm oil	Udeme Bassey Edet	Farmer, Private Nursery Operator	Market actor, beneficiary
Palm oil	John Sunday Ekpo	Private Nursery Operator	Market actor
Palm oil	Uwem Michael Umoh	Ummico Metals	SSPE Fabricator
Palm oil	Peter Kevin Udom	Udom Constructions Ltd.	SSPE Fabricator
Palm oil	Benjamin Felix	Miller	Market actor
Palm oil	Grace Anoh	Millller	Market actor
Various	James Elekwachi	MSD Manager, PIND	Donor

INTERVIEWS UNDERTAKEN IN PHASE II

Market	Name	Firm/Entity	Role
Access to market	Elizabeth Nwankwo	Oklan Best Ltd.	Lead firm
Access to market	Ayodeji Rotimi	Hills Harvest	Lead firm
Access to market	Roseline Ogbomoe	Farmer	Beneficiary
Apiculture	Obaka Ikani	Thrive Agriculture	Financial service provider
Apiculture	Bidemi Ojeleye	Co-facilitator	Co-facilitator
Apiculture	Priscilla Ekhosayator	Farmer Service Provider	Service provider
Apiculture	Friday Oghogho	Apiculture Service Provider	Service provider
Apiculture	Kelvin Aghedo	Beekeeper entrepreneur	Beneficiary
Apiculture	Osifo Etiosa	Beekeeper entrepreneur	Beneficiary
Cassava	Maryann Esamchi	Master Village Seed Entrepreneur	Service provider
Entertainment	Lancelot Imasuen	Benin Film Academy	BMO
Entertainment	Padi Ocau	Prolens Mowes Ltd.	Service provider
Entertainment	Davidson Izegaegbe	Directors Guild Nigeria – Edo State	BMO
Feed finishing	Semowo Olumuyiwa	Animal Care Services Konsult	Lead firm
Feed finishing	Rohones Peters	Edo Exporters Cluster	BMO
Fisheries	Momoh Mustapha	AquaGreen Ltd.	Service provider
Micro-retailing	Ayana Nwabueze	PayByana Ltd.	Financial service provider
Micro-retailing	Evelyn Bates	Micro-retailer, member BMO	Beneficiary
Poultry	Immanson Mdiana	Village Level Dealer	Service provider
Skills	Isimeme Whyte	Genius Hub	Lead firm
Skills	Obehi Okpiabhele	Genius Hub	Lead firm
Skills	Timothy Idowu	SEYP	Lead firm
Skills	Jennifer Ero	SEYP	Lead firm
Skills	Mary Ohonwa	Amena Academy	Lead firm
Skills	Marian Idahose	Amena Academy	Lead firm
Various	Samuel Oman	Edo Jobs	Edo State Government
Various	Ukinebo Dare	Edo Innovate Hub	Edo State Government
Waste 2 Wealth	Funso Akande	Natural Eco Capital Ltd.	Lead firm

ANNEX B. LIST OF DOCUMENTS REVIEWED

Phase 1 of MADE review

1. Business Case and Background Documents

- MADE I Business Case
- Climate and environmental assessment
- Political economy analysis
- Niger Delta conflict analysis
- Economic analyses and models
- Business Case economic analysis calculations (April 2014)
- Agricultural Inputs economic analysis
- Fisheries economic analysis
- MADE economic analysis tables
- Palm Oil economic analysis (April 2014)
- Poultry economic analysis (April 2014)

2. Sector analysis and strategies

- Sector analysis: agricultural inputs, poultry, cassava, fisheries and palm oil
- Sector strategies: agricultural inputs, poultry, cassava, fisheries and palm oil
- Intervention justification: agricultural inputs, poultry, cassava, fisheries and palm oil
  Intervention profiles: agricultural inputs, poultry, cassava, fisheries and palm oil
- MADE I MOUs and Agreements
- MADE II MOUs and Agreements

3. M&E Framework

- M&E Plans
  - MADE I M&E Plan
  - MADE II M&E Plan
- Programme Theory of Change at the component level
  - Market Development Component
  - Edo State Investment Portfolio
- Programme logframe
  - MADE I Logframe (2014 version)
  - MADE I Logframe (revised in January 2017)
  - Memo Proposing Revision to MADE I Logframe in January 2017
- Data collection tools and templates
- Post pilot assessment reports: agricultural inputs, poultry, cassava, fisheries and palm oil
- MRM strategy papers for each sector
  - Agricultural Inputs
  - Cassava
  - Palm Oil
  - Feed Finishing
  - Access to Market
- Baseline Reports: agricultural inputs, poultry, cassava, fisheries and palm oil
- Monitoring reports
  - March 2016

- June 2019
- September 2019
- Results aggregation
- ESIP database from inception of MADE II
- Market Development database from inception of MADE II
- Results aggregation sheets
- Evaluation
- Midterm review of MADE I
- MADE evaluation plan
- Terms of reference

4. **Progress Reports**

- Inception reports
- Market Development (May 2018)
- Edo State Investment Portfolio
- Quarterly reports
- Quarter 1, Year 1 (March – June 2018)
- Quarter 2, Year 1 (July – September 2018)
- Quarter 3, Year 1 (October – December 2018)
- Quarter 1, Year 2 (April – June 2019)
- Quarter 2, Year 2 (July – September 2019)

5. Annual Reviews

- Year 1 (September 2014 – March 2015) review
- Year 2 (April 2015 – March 2016) review
- Year 3 (April 2016 – March 2017) review
- Year 4 (April 2017 – March 2018) review

Phase 2 of MADE review

1. Business Case
- MADE II Business Case Addendum
- MADE II Proposal

2. ESIP sector analysis
- Background studies
- Edo State Economic Outlook and Investment Scan
- Political Economy Analysis
- Mapping of Comparative Advantage of the Local Government Areas in Edo
- Socioeconomic Survey of Potential Target Demographics
- Stakeholder Mapping
- Vulnerable Groups Assessment and Gender
- Scoping and baseline studies
- Access to Market
- Feed Finishing
- Micro-retailing
- Skills Development
- Entertainment
- Waste to Wealth

3. MADE II partnerships

- MOUs and Agreements
- Market Development MOUs and Agreements
- ESIP MOUs and Agreements

4. M&E related documentation

- MADE II Logframe
- MADE II Logframe annexed to the Business Case
- Proposed revision with reduced targets for ESIP

5. Progress Reports

- Inception reports
- Market Development (May 2018)
- Edo State Investment Portfolio
- Quarterly reports
- Quarter 1, Year 1 (March – June 2018)
- Quarter 2, Year 1 (July – September 2018)
- Quarter 3, Year 1 (October – December 2018)
- Quarter 1, Year 2 (April – June 2019)
- Quarter 2, Year 2 (July – September 2019)
- Annual reports
- Year 1 Annual Report (March 2018 – March 2019)

6. Annual Reviews

- MADE II Reviews
- Year 1 (March 2018 – March 2019) review

ANNEX C. TERMS OF REFERENCE

Terms of Reference for an independent review of DFID Nigeria's 'Market Development in the Niger Delta' project (MADE) Phase 1 and 2 with reference to other M4P Agriculture projects in Nigeria

Please read in conjunction with Annexes, particularly Annex 1

1. BACKGROUND AND CONTEXT

The Niger Delta is a critical region for Nigeria's social and economic development: the serious problems of poverty and instability in the Niger Delta have an impact not only on the 31 million people living in the Delta, but also on Nigeria as a whole. Poverty levels in the Delta are not as high as in the far north of Nigeria, but across a range of poverty indicators, it is arguably the next poorest region. Data from a Conflict Analysis commissioned by MADE suggests that in the Niger Delta: (a) little more than a third of households have access to electricity; (b) the number of doctors per head of population is between a half and a third of the national average, and access to healthcare in remote areas falls as low as 2-5%; (c) 30-40% of children are enrolled in primary school, compared with a national average of 76%; (d) an estimated half to three-quarters of households do not have access to safe drinking water[193]. Eight of the nine states experience poverty rates above 50% (the exception being Akwa Ibom at 46.5%), while two are above the national average of 65% – Cross River at 67.8% and Delta at 72.5%[194]. Road infrastructure, hence access to markets, is very poor.

The concentration of oil industries in the region has created wage and commodity inflation, and driven inequality that intensifies the experience of poverty. This has led to acute and widespread sense of injustice, fuelling the criminality, violence and insecurity common to the region. Poor security further aggravates investment and economic development. The majority of the population depend on agriculture for their livelihoods, but numerous, complex and substantial market failures have kept productivity and incomes extremely low.

The states of the Niger Delta are amongst the worst performers on measures of gender equality. Women, fundamentally disadvantaged through a variety of social norms, often operate in the most marginalised market sectors, and undertake crowded roles in value chains, which have little room for maximising returns. Certain states in the region have been at the epicentre of a crisis in unsafe migration and human trafficking, partly driven, it is assumed, by lack of economic opportunities that meet the aspirations of their populations.

DFID have two long running agribusiness market development projects in Nigeria. PROPCOM focuses on Northern Nigeria, while MADE focuses on the southern Delta region. PROPCOM is currently subject to a long running evaluation, while MADE has not yet been evaluated. Due to the time elapsed since the beginning of MADE, and other data constraints, a formal evaluation is not considered feasible. However, a review, with relevant comparisons to the PROPCOM project, is considered feasible and

193 Sebastian Taylor 'Niger Delta Conflict Analysis', MADE Conflict Analysis. (December 2013).
194 National Bureau of Statistics, Annual Abstract of Statistics, 2011.

valuable in offering accountability to its donor and project participants, as well as offering new lessons for DFID and the market development community.

2. THE MADE PROGRAMME

2.1 Programme Approach

DFID Nigeria conceived the Market Development in the Niger Delta (MADE) as a means of reducing poverty and conflict in the Niger Delta region, through developing the agricultural markets that impact on poor people. The first phase of MADE, implemented over a 4.5 year period (September 2013 – February 2018) at a cost of £14.3m, was contracted as a design and implement project to Development Alternatives Incorporated (DAI).

MADE phase 1 was successful, surpassing its target of 150,000 people with income increases of at least 15%, and a second phase was approved by DFID Nigeria to run for further two years (March 2018 – February 2020) at an additional cost of £6.75m. The aim of the second phase was to exploit the potential to equal Phase 1 results at half the cost of the original project, and in half the time, by building on the maturing project interventions that offered the opportunity to scale up, and become embedded and sustainable. The MADE II extension was also partly designed to identify and address livelihood and economic factors contributing to human trafficking, forced labour and modern-day slavery (MDS) in the region, particularly in Edo State.

The programme's design and methodology are based on the recognition that poverty is the result of the structure of market systems in which the poor participate and that when markets work efficiently and produce equitable outcomes for the poor[195], such markets become powerful vehicles for delivering growth and poverty reduction.

Both phases of the programme were designed to focus on value chains in which interventions are most likely to have the maximum impact on wealth creation and employment, particularly among women, beginning with palm oil, household poultry, fisheries, cassava and agricultural inputs and a cross-cutting access to finance sector. While the programme added finished leather goods sector in the third year of Phase I, this workstream was subsequently dropped due to poor progress. In each of the value chains, MADE applies the 'Making Markets Work for the Poor' (M4P) approach by identifying the underlying systemic constraints of markets, and thereafter facilitate change to the behaviour, capabilities, incentives and relationships of the actors within market systems.

MADE II's focus on modern-day slavery in the region has led to consideration of sectors outside of agriculture, including ICT, hospitality and the creative industries. The interventions will support investment and growth in sectors that are seen as 'aspirational' and attractive to potential victims of trafficking, and thus reduce drivers for emigration. MADE II's work on anti-trafficking is part of a growing portfolio of UK funded activity in the region, including a new £10m Stamp out Slavery in Nigeria

[195]Given an initial challenge with defining poor farmers across board using land assets, the programme recently proposed some variation in defining 'poor' and 'not-so-poor' beneficiaries. It is now proposed that while land assets (ownership of up to 4 hectares of land) can define poor farmers growing crops, flock size will be a better index of poverty for poultry keepers and number of fresh fruit bunches for mill users who have less secure access to land.

(SOSIN) project – focusing on prevention through challenging social norms that encourage or enable traffickers to operate – and other support to those rehabilitating and reintegrating returned victims of trafficking.

2.2 Expected Results of MADE

The goal of MADE I was to facilitate increases in income of at least 151,000 poor men and women in the Niger Delta by February 2018, while MADE II has the target of 155,000 additional beneficiaries by end of MADE II in February 2020. This gives a cumulative of 306,000 poor men and women over the 6.5 year period. It is expected that MADE II beneficiaries with increased incomes attributable to MADE II programme interventions will include at least 30,000 people within geographies and demographic groups at particularly high risk of trafficking (Potential Victims Of Trafficking, or PVOTs).

A key expected outcome is improvement in the performance of the market system for low-income farmers, processors and traders to receive better prices for their produce and expand production; achieve supply chain improvements and access to cheaper, higher quality inputs and services, improvements in efficiency; cost savings and more efficient information flow. MADE II results framework includes a second outcome (increased growth in sectors considered 'aspirational' by potential victims of trafficking) that is new and is specific to MADE's Edo State Investment Portfolio (ESIP). The outcome focuses on leveraging private sector investment and has a target of generating £10 million in additional investment by February 2020.

While MADE I had two outputs, a third output was added to MADE II design. The first focuses on better access to inputs, products, technologies and services, while the second focuses on how the programme influences a wide range of actors (development agencies, support service providers at the private, public, and NGO level and private investors) to change their approach to engaging with the poor in the Niger Delta region. The new output (Output 3) focuses on introduction of new and/or improved economic opportunities that the susceptible populations in Edo and Delta States will access as a precondition for increasing growth of the aspirational sectors and eventual increase in incomes.

The final log-frame for MADE 1, and the draft Log-frame for MADE 2 are attached at Annex 5a and 5b.

3. PURPOSE AND OBJECTIVES OF THE INDEPENDENT REVIEW

The overall purpose of the review is two-fold. These are:

- To determine the extent to which MADE has achieved its objectives and;
- To contribute to the body of knowledge regarding M4P programmes, particularly those implemented in conflict-prone regions,

The specific objectives of the review are:

a. To assess the programme's overall impact, particularly the programme's contribution to poverty reduction;
b. To examine the extent of pro-poor systemic change the programme has achieved;
c. To document lessons learned during implementation, including those specific to implementing market development programmes in conflict-prone and fragile environments
d. Assessment of the extent to which the programme has influenced development agencies and local NGOs to adopt market development approaches
e. Provide lessons drawn from a comparison with the PROPCOM project;
f. Provide lessons drawing on the methodology, quality and reliability of the MADE project data

g. To review the extent to which interventions conducted under ESIP contribute to a reduction in the drivers (and, possibly, the incidence) of human trafficking in Edo and Delta States
h. To ascertain the extent to which MADE II has influenced local NGOs and other partners to adopt improved approaches to addressing modern day slavery in Edo and Delta States
i. To feed in data and insight into global discussions on the efficacy of M4P programming.

4. SCOPE OF WORK

The review will be in two main phases:

- First Phase: A focus on MADE I (September 2013 – February 2018) and MADE II progress to date, to be conducted as soon as possible, estimated within two months of contract signature. Preparatory work for the final overall review will also be undertaken.
- Second Phase: the review focusing on MADE II will largely take place towards the end of the MADE II project November 2019 to January 2020.

The supplier is expected to undertake the following tasks:

1. **Desk review and planning stage**: the supplier should undertake a thorough review of relevant documents, including the MADE Logframes, business case and annexes, sector strategies, intervention justifications, quarterly and annual reports and selected reports articulating the extent of achievement of programme results. A more limited set of relevant documents will be made available from the PROPCOM project. The second phase of the review will require further updates to the reading list.

   The initial desk review, and the second phase desk review, will generate more detailed plans and methodology (see Deliverables, Section 7, below) for the review, which will be subject to consultation with DAI and DFID (similar to an inception phase check in). It is possible (see Data Sources below) that additional surveys could be commissioned by the Supplier during Phase 1 for completion by Phase 2.

2. **Field Investigation**: The field investigation will likely involve four stages, broadly repeated for each phase.

a) Workshop and/or Key Informant Interviews (KII) with the MADE team, which will give the MADE team an opportunity for self-assessment of the programme success, challenges experienced, and lessons learned and to review the theory of change.
b) Review meetings, Focus Group Discussions, and/or KIIs with the key stakeholders, particularly farmers; decision makers from a sample of lead firms; development agencies/NGOs; and relevant government agencies in the sectors where MADE intervened.
c) Investigating the performance of service providers collaborating with lead firms (or operating independently).
d) Two-day workshop with the MADE Team to validate the evaluation findings and finalise any adjustments to the theory of change.

3. **Report writing**. See Deliverables Section 7 below for more details.

5. METHODOLOGICAL APPROACH

A theory-driven approach to the review is recommended. Despite the availability of substantial datasets derived from project monitoring and assessments, a quantitative impact evaluation is not feasible. Data - both quantitative from the project; and qualitative from the supplier's own field work - will be used confirm or challenge the assumptions within the theory of change.

Compliance with DCED standards: MADE follows the Donor Committee for Enterprise Development (DCED) standard, generating a significant amount of data, research and analysis. The DCED identifies three elements of systemic change which should be assessed:

- Scale: Systemic changes influence and benefit a large number of people who were not directly involved in the original intervention.
- Sustainability: Systemic changes continue to have impacts beyond the end of the programme, and are sustained without the need for further intervention.
- Resilience: Market players are able to adapt so that benefits continue to accrue to poor people even as the market and the external environment changes.

Data sources

Data sources are summarised below; a much fuller description of data sources available from within the project is provided in Annex 1, Section3. Annex 6 also provides an example of a results reference sheet.

Project data sources

The programme collates substantial information provided by partners, based on grant agreements, and carries out additional sector wide assessments to estimate changes in performance and incomes of target beneficiaries. To assess outcome and impact level change, MADE's Monitoring and Results Measurement (MRM) team carries out large sample surveys of those who have been reached by private sector partners. Surveys of changes in target beneficiary behaviour (outcome level), performance (outcome level) and incomes (impact level) are also carried out by the MRM team. Changes in farmer performance (productivity) and incomes were also assessed prior to impact assessments[196] across all value chains that were conducted at end of Years 3 and 4.

The programme uses comparison group (treatment and control groups) as well as 'before and after' analysis to estimate attributable change. Firstly, impact surveys involve treatment and control groups as part of the process of establishing the counterfactual (i.e. what would have happened without the intervention). The programme then measures the 'before and after' among both groups. This only gives the total change (orange arrow) that has happened to both groups. To estimate the attributable change (green arrow), the programme calculates the difference between the counterfactual and the total change observed/measured, which are reported as the programme's impact attributable to each intervention.

Data generated by the reviewer

The supplier will also be expected to generate their own data for independent assessment, likely to be largely qualitative and based on interviews. Separate quantitative studies can be suggested however[197];

[196] It should be noted that the programme measured impact level indicators (income increases and net additional income change) for the first time in year 3 (March 2017), while the second impact assessment was conducted in December 2017. This is because the programme had full year implementation for the first time at end of Year 2 (March 2016) and there was a need to allow farmers more time to experience the benefits of the programme as a consequence of behaviour change before a full-scale impact measurement. However, in the previous years, the programme recorded case studies of income increases across the value chains and these were reported in the quarterly and annual progress reports.

[197] These would be commissioned from/by the DAI MADE 2 team, subject to budget availability.

there may be value in replicating studies undertaken by PROPCOM to strengthen the comparability of the two programmes.

The following data collection methods are proposed:

- Desk review, including review of programme documents, case studies and existing qualitative data from outcome and impact surveys;
- Focus group discussions providing qualitative data on farmers' diverse experiences of the services accessed, their relevance, benefits and unintended consequences. To explore impact on women, some of the FGDs should be held with women-only groups; and
- Key informant interviews (KII) focus on the design and implementation of interventions as well as the extent to which they have contributed to systemic change. KIIs will include programme staff, local partners and enterprises, service providers and product distributors and relevant policy makers.
- (possible) Commissioning additional studies designed during Phase 1 review that can be undertaken in time for Phase 2.

6. REVIEW QUESTIONS

Assessment questions will be guided by the OECD DAC criteria for evaluating development assistance, which are: relevance, efficiency, effectiveness, impact and sustainability. The additional criteria of coverage and inclusiveness are also relevant here.

Criterion	**Type of questions to consider**
Relevance	a. To what extent are the objectives of the MADE still valid? b. How does MADE's approach compare to other similar poverty reduction programmes? c. How relevant is MADE II to the human trafficking issue in Edo and Northern Delta? d. To what extent has the ESIP intervention effectively targeted potential victims of human trafficking?
Effectiveness	a. To what extent have outputs, outcomes and impact been delivered? b. How did MADE's interventions contribute to changes in the sectors? c. How have benefits been distributed among the poor and women? d. To what extent has the programme been able to stimulate systemic change (as defined by the AAER) through its interventions? e. What are the other contributory factors, in addition to MADE, that may have created systemic change?
Efficiency	a. How cost -efficient were the project activities and the implementation approach? b. To what extent were project outputs and outcomes delivered on time? c. To what extent were project activities implemented in the most efficient way possible? What alternative approaches would have delivered the results more efficiently, and consistent with market development principles? d. How did the project leverage on local NGOs and women business membership organizations to reach more farmers and achieve its targets? e. To what extent does the MADE's financial management system enable a good understanding of efficiency/cost effectiveness?
Impact	a. What type of change (positive or negative, direct/indirect, intended/non-intended), if any, happened as a result of MADE? b. Are there ways in which the project or its partners contributed to conflict mitigation in the region?

	c. What mechanisms exist within the project or its partners for tracking conflict dynamics in the project area? How did the project use the mechanism as part of the risk management system to limit impacts of conflict on project operations? d. What has been the impact of the programme on local, social, economic, environmental, and other development indicators?
Sustainability	a. To what extent are the results becoming sustainable? b. What evidence (if any) exists that could suggest that partners'/business models initiated by MADE will be continued beyond project lifespan? Why or why not? c. What were the major factors which influence (d) the likely achievement or non-achievement of sustainability of the project?
M&E system	a. How robust is MADE's M&E system b. How reliable is MADE's data? c. What new results measurement methods and approaches used by MADE can be demonstrated as being effective?

The supplier will have the chance to revise/sharpen/prioritise and/or reduce these questions, on agreement with DFID during phase 1 inception.

Some or all of the final questions will also be informed by comparing MADE to PROPCOM.

The reviewers should also be aware that other donor programmes are likely to be working with the same set of partners and with similar models/interventions which may have been first piloted under MADE. This creates the need for additional care to establish both attribution, and crowding in.

7. KEY DELIVERABLES AND TIMELINES

The key deliverables for each segment of the assignment are as listed below under each of the two evaluation phases:

Visit I:

a. **An inception report to be submitted within four weeks after signing of contract**. This report will include a detailed work plan for the execution of the assignment, further development of the methodology; and the timeline for accomplishment of the tasks of the assignment, including a debriefing meeting prior to submission of the draft report.

b) **A draft interim report** that should be concise and follow the thematic areas identified in Table 1 above. This draft report is expected within three months of contract signing. MADE and DFID will provide written comments on the draft within two (2) weeks after receiving the draft report. The draft interim report should contain early findings, and suggestions for how the second visit should be conducted and what it should focus on. Comments will be provided by DFID and DAI in order to inform the second half of the process.

Visit II:

d. **An updated workplan by 15 November,** reflecting what can be achieved and how, following the first part of the review process. .

e. **A further draft report (updating or supplementing that produced already)** that should be concise and follow the thematic areas identified in Table 1 above. This draft report, to be submitted in both hard and soft copies, is expected by **10 December 2019**. MADE will provide written comments on the draft at least two (2) weeks after receiving the draft report.

f. A copy of the **final report**, in both hard and soft copies, is to be submitted to DFID by **15 January 2020** (i.e. at a maximum of 2 weeks after receiving the written comments from DFID).

8. LEVEL OF EFFORT

A total of 85 day level of effort (LoE) is estimated for the two-phased assignment: 45 days for phase 1, 40 days for phase 2.

9. APPLICATION PROCEDURES

Suppliers are expected to submit proposals demonstrating a clear understanding of the required approach. The proposal should include:

a. A technical proposal detailing the review approach and methodology.
b. A financial proposal (indicative budget), inclusive of all consultancy fees and expenses to cover the assignment, with a clear distinction between the two categories of costs.
c. A detailed *Curriculum Vitae* of person(s) to be involved in the consultancy.

10. TEAM STRUCTURE

The team will be made up of three people. The following table sets out indicative roles, and levels of effort. These can be discussed and refined during the first month of the contract if necessary. Note that DFID Nigeria have secured a waiver to use a single sourced consultant in one of the roles. This is due to their experience with the PROPCOM programme evaluation, and their value in providing comparative lessons between the two programmes.

Position	Role	Level of Effort	Notes
Lead consultant	Design the work plan, refine the review questions, lead delivery of the research and report, including through two field trips.	40 days	
Advisor (sole-sourced)	Provide advice on work-plan and question refinement, provide access to relevant documents and information from PROPCOM; write relevant sections, and comment on others.	Up to 8 days	The sole sourced consultant has led the PROPCOM evaluation
National consultant	Support the development of the workplan; undertake in-country management of field trips; undertake interviews, and focus groups discussions, collate and analyse data and information	40 days	

11. QUALIFICATION AND EXPERIENCE

11.1 QUALIFICATIONS AND EXPERIENCE: LEAD CONSULTANT

The CVs of the team should be attached to the expression of interest and will form part of the proposal evaluation criteria. The lead consultant for this assignment is expected to have the following desirable qualifications and experiences:

- An advanced degree in economics, agricultural economics, social sciences or a related field is preferred.
- Minimum of 10 years' experience in evaluating international development programmes, preferably market systems programmes;
- Experience in evaluating sustainable livelihoods projects
- Familiarity with market systems programmes, preferably economic growth portfolios;
- Experience working in Nigeria;
- Excellent verbal and written communication skills in English and;
- Strong interpersonal skills and experience of working with partner organisations.

10. 2 Qualifications and Experience: National Consultant

The secondary consultant for this assignment is expected to have the following qualifications and experience:

- Experience of working and professional networks in the Delta region (northern Nigeria experience also desirable)

- At least five years' experience of evaluating agricultural development programmes (experience of evaluating projects badged as 'making markets work for the poor' projects is desirable)

Annexes to these Terms of Reference.

Annex 1: MADE: Independent Review Planning Document

Annex 2: MADE 1 and 2 Theories of change

Annex 3: Indicative list of MADE programme monitoring questions

Annex 4: Illustrative Record of Systemic Change in Agricultural Inputs Intervention

Annex 5a: MADE 1 logframe

Annex 5b: MADE 2 draft logframe

Annex 6: Sample results reference sheet (Cassava sector)