



NIGERIA PROPCOM PROJECT COMPLETION REPORT

October 2011

“The credit belongs to the man [or woman] who is actually in the arena, whose face is marred by dust and sweat and blood; who strives valiantly...and who at the worst, if s/he fails, at least fails while daring greatly, so that his [or her] place shall never be with those cold and timid souls who neither know victory nor defeat.

— Theodore Roosevelt

Delivered at the Sorbonne, Paris, April 23, 1910

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ACRONYMS

| | |
|-------------|---|
| ACGS | Agricultural Credit Guarantee Scheme |
| BDS | Business Development Services |
| CIM | Catalytic Intervention Managers |
| CBN | Central Bank of Nigeria |
| CoPoC | Country Policy Centre |
| CPP | Crop Protection Products |
| DPS | Distribution Partners |
| DCED | Donor Committee for Enterprise Development |
| FIPS-Africa | Farm Input Promotions Africa |
| FEPSAN | Fertiliser Producers and Suppliers Association of Nigeria |
| FTE | Full-time equivalent job |
| GAP | Good Agricultural Practices |
| GBF | Growing Business Foundation |
| M4P | Making Markets Work for the Poor |
| MANR | Ministry of Agricultural and Natural Resources |
| M&E | Monitoring and evaluation |
| NEEDS | National Economic Empowerment and Development Strategy |
| NESG | National Economic Summit Group |
| NTM | National Truck Manufacturers |
| NNF | New Nigeria Foundation |
| NGN | Nigerian Naira |
| NACRDB | Nigerian Agricultural Cooperative and Rural Development Bank |
| NAEC | Nigerian Agricultural Enterprise Curriculum |
| OECD | Organisation for Economic Co-operation and Development |
| OSPAN | Oilseed Processor Association |
| PrOpCom | Promoting Pro-Poor Opportunities in Commodity and Service Markets |
| PCs | Promotion Coordinators |
| PMU | Project management unit |
| RBM | Results Based Management |
| RAMP | Rural and Agricultural Markets Programme |
| SMO | Service member organisation |
| SFAL | Springfield Agro Limited |
| SIF | Stakeholder Intervention Fund |
| SAF | Strategic Activity Fund |
| TRP | Tak Agro Rural Promoters |
| TSP | Tractor service provider |
| TOOAN | Tractors Owners and Operators Association of Nigeria |
| VFM | Value for money |
| VP | Village Promoter |

EXECUTIVE SUMMARY

This report documents the PrOpCom programme's experience and provides a self-assessment of its achievements, impacts, and lessons learned over its lifespan from December 2002 through the end of its full implementation in December 2011.

The bulk of this document is structured around the programme's current and previous interventions. It also includes relevant information on programme management, lessons learned, and value for money. Alongside this document are a series of specific reference documents (such as case studies, research reports, video shorts, and beneficiaries' success stories) that outline in greater detail the programme's intervention activities and achievements. Links to these documents are included in Annex F and will be provided by the programme end in a CD-ROM to ensure longevity of access to the materials.

Overview

The purpose of the PrOpCom programme is to improve livelihoods by facilitating growth and pro-poor outcomes in agricultural markets. It is mandated to employ the M4P approach for facilitation of programme aims. The programme comprised a design period and three phases of activity, namely, inception, pilot and implementation. During this time, key changes were observed in the agricultural markets in which PrOpCom was active, the most significant for future development progress being the federal and state governments' shift in perspective: government now views its role to support investment in agricultural sector rather than direct service provision. In turn, there has been significant investment (£4 million) from the private sector in agricultural markets such as fertiliser and mechanisation. By December 2011 (programme end), PrOpCom achieved over £40 million in incremental net income for its 1,264,180 direct and indirect beneficiaries. The programme created 17,633 new jobs.

Interventions

PrOpCom's key interventions are those that were still ongoing at the end of PrOpCom's full implementation (Phase 3); non-key interventions are those that were stopped due to unsuccessful performance or progress toward programmatic objectives. The key interventions are listed below with their respective results:

- *Agricultural mechanisation: tractors.* PrOpCom aimed to develop a privately led, coordinated market system through which poor farmers could gain greater access to tractor services. In total, 72 tractors were provided through commercial bank lease finance arrangements to private tractor service providers. The total net income increase by October 2011 was N477,878,080.
- *Agricultural mechanisation: threshers.* PrOpCom aimed to better supply farmers' demand for threshers, by influencing agricultural machinery producers and importers to market and sell directly to smallholder rice farmers. This intervention is still awaiting final impact results.
- *Agricultural policy: state-level and federal-level interventions.* PrOpCom engaged politicians in order to directly influence the regulatory environment and investment climate surrounding the programme's work in other agricultural sectors, such as rice and fertiliser. PrOpCom has supported Kano and Ogun states in the development of rice sector policies. The policy process innovated by PrOpCom is now being copied

by other states across the nation due to the programme's federal-level stakeholder coordination and knowledge sharing activities. The total net income increase by October 2011 was estimated at N4,701,622,770.

- *Fertiliser*. PrOpCom sought to refocus private fertiliser companies' sales efforts on selling small, affordable packages of fertiliser directly to smallholders in remote areas rather than selling strictly to government buyers. They were also encouraged to provide farmer training. In total, 4,279 metric tons of fertiliser, sold in small-packs, were purchased by 1,003,418 farmers in 25 states across Nigeria. 211,872 farmers received training in fertiliser application techniques. The total net income increase by October 2011 was estimated at N1,389,043,959.
- *Mobile banking*. PrOpCom worked with two mobile-payments service providers to increase the access of financial services and savings to the massive un-banked rural population in Nigeria. 51 potential rural banking agents were trained in delivering mobile payment services, but no net income increases were yet observed.
- *Rice parboilers*. PrOpCom aimed to improve the ability of women parboilers in Kano and Adamawa states to upgrade the quality of their rice, increase their processing capacity, and improve their business income potential. This was achieved by providing access to small loans and/or capacity building to 817 parboilers. The total net income increase for this intervention by October 2011 was estimated at N2,444,060,597.

The non-key interventions included activities in the Ogun and Kano state rice sectors, such as attempts at mechanisation of the Kano rice processing value chain and improved production and marketing of Ofada rice. Interventions in the soya value chain were also attempted and stopped due to lack of progress. Furthermore, PrOpCom trained agricultural sector actors in the Nigerian Agricultural Enterprise Curriculum, but this intervention was also stopped due to lack of sustainable market-based demand for the training.

Programme management

Programme management and support services were required for the programme to achieve its technical implementation objectives. PrOpCom maintained a 3:1 technical-to-administrative cost ratio throughout the duration of the programme and a 2:1 technical-to-administrative staff ratio. In the course of administering DFID's programme, lessons were learned on managing partner grants; on issues of security and facility management; and on the technical staff development required to bring the capacity of technical staff to the level required to facilitate such an M4P programme.

Conclusion

Over the duration of PrOpCom, programme manager and staff have learned important lessons, namely: (1) M4P is a viable approach in Nigeria, (2) having a varied portfolio of interventions mitigated the total risk of failure of the programme, (3) quality of staff was critical to achieving M4P success, (4) the programme needed to balance the tradeoffs between working with larger stakeholder groups vs. working with large corporate entities, and (5) investing in a rigorous results management system paid off. By December 2011, PrOpCom has generated significant value for money for DFID, by providing £2 in net income for every £1 spent on the programme. This is estimated to increase to £5 in net income for every £1 spent by December 2013.



OVERVIEW OF PROGRAMME

Photographer: Yusuf Jidda | PrOpCom worked with fertiliser companies to develop affordable small package sizes of fertiliser and improve rural distribution networks. Farmers are benefiting through improved harvests.

INTRODUCTION

Poor people seek a better life through markets: through the exchange of social and economic goods and services. They trade what they have, trying to get more. They are rarely successful because markets do not often serve their interests well, and they are vulnerable to shocks, trends, and seasonality, all of which erode their asset base. There are a number of reasons for such market failure: First, government and society often do not ensure that the market performs fairly for all people — a type of neglect or wilful manipulation of the system. Second, markets compete with each other for investment and activity, and so the market that the poor people are interested in may be small and unsupported due to lack of investment. Third, the wealthy are able to maintain their relative position by ensuring that the market favours them — they collude, form cartels, and generally crowd-out competitive pressures that bring efficiency and equity.

PrOpCom attempts to identify and understand these market failures and the underlying causes, and through mere facilitation, bring about a reform so that poor people get a better deal. This is extraordinarily ambitious and risky — at times leading to a failure to bring about change — but is premised on the point that temporary change brought about by direct action is a fraud; “development” is a term that can only be used to refer to sustained change. Such change relies primarily on the commitment of business partners, those who have an interest in the creation of a fairer, larger, growing market.



1. MISSION STATEMENT

Promoting Pro-Poor Opportunities in Commodity and Service Markets (PrOpCom) is an innovative market development programme funded by the Department for International Development (DfID) of the United Kingdom. It is implemented by Chemonics International Inc., a Washington, D.C.-based consulting firm, through SAIL Associates Ltd/Gte, a Nigerian corporate entity of Chemonics.

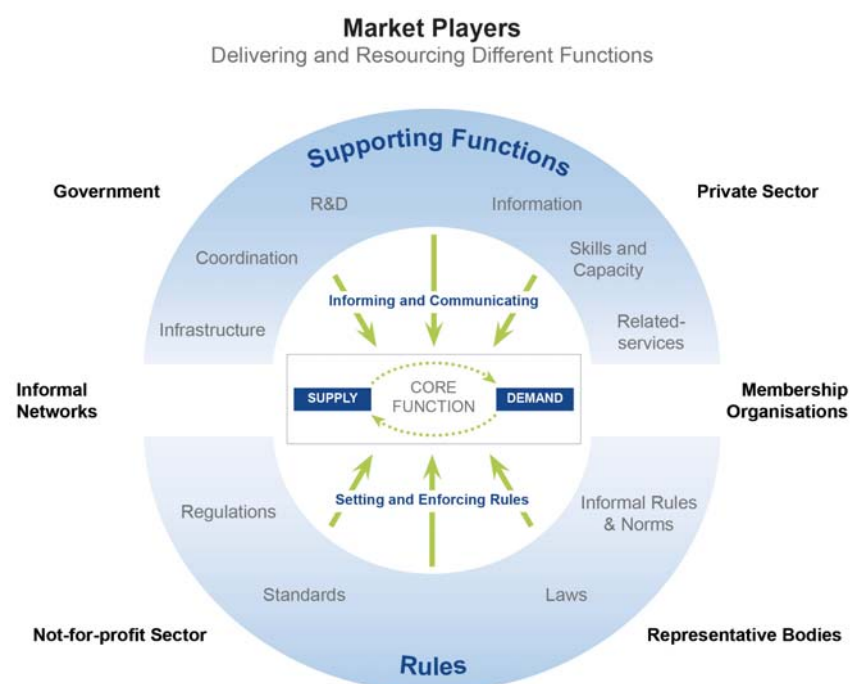
PrOpCom seeks to improve livelihoods by facilitating growth and pro-poor outcomes in agricultural markets to contribute to the overarching DFID/Nigeria goal of poverty alleviation. It aims to do this by facilitating functionality and efficiency of Nigerian commodity and service markets in such a way as to assure these markets benefit the poor. PrOpCom is mandated to employ the Making Markets Work for the Poor (M4P) approach.

The M4P approach is founded first in analysing the context of the poor within market systems, focusing on identification of the underlying constraints that hinder their effective participation in the markets, and second in designing and carrying out intervention activities that will lead to effective and lasting change. The analysis of market systems in M4P is on understanding market functions and players, public and private, formal and informal. M4P's stylised view of a market system (Figure 1) stresses the interrelationships of functions and players, organised around three functions:

- the core market function between supplier and end consumer,
- the formal and informal rules shaping behaviour and
- the information, services, and other supporting functions that enable the core transaction to occur.

This systemic view of markets can be applied to both commercial markets as well as to “markets” in the public arena, such as policy, water and sanitation, and public infrastructure.

Figure 1. The M4P View of a Market System





The M4P approach has allowed PrOpCom staff the conceptual and operational space to design and implement pro-poor interventions. These interventions facilitate, not implement, change. The programme facilitates change with and through local structures, firms, and individuals. PrOpCom is therefore just a catalytic agent. Like all catalysts, it merely speeds up the process while leaving the intended beneficiaries (local market actors) to run the show. It is about Nigerians taking charge of their own development. For this Nigerian ownership to occur, the programme aims to create a vision and build capacity of Nigerian partners to work toward this vision in order to reach goals that are mutually agreed upon. As capacity is enhanced, Nigerian partners will play a key role developing and revising the future vision of programmatic activities. The ability of Nigerian partners to “own” and take the lead on strategic thinking for the programme’s future is essential to sustainability.

1.1 Goal and Strategy

The goal of the PrOpCom programme is to improve pro-poor growth in non-oil sectors in Nigeria¹. This is to be achieved by improving the pro-poor performance of selected agricultural market systems.

The strategy for the full implementation period comprised both technical objectives and facilitation tactics:

Technical objectives:

- Focus on a small number of key markets that have a high profile in the agriculture sector, are significant opportunities to improve food security for poor people, and have good growth potential. The markets were: rice, enterprise training, agricultural mechanisation, financial services, and fertiliser. PrOpCom’s interventions cover all these markets and one related theme: agriculture policy.
- Work mainly in two geographically and politically separate locations: Kano and the southwest states (Ekiti, Ogun, Osun, and Oyo) to maximise learning and post-programme adoption. Both locations are major economic hubs. Partners were not limited to working only in these locations.

Facilitation tactics:

- Offer a new, challenging approach to poverty reduction: facilitated reform to create sustainable, functioning market systems. Differentiate PrOpCom’s programme service in these markets, and communicate this difference to relevant audiences.
- Facilitate reforms that affect all key parts of market systems: culture, policy, institutional change, support services, rules and regulation, and competitiveness.
- Bring innovations to market quickly so as to test for failure as soon as possible, thereby reducing learning periods and costs for programme and partners.
- Deliberately work with and through others, preferring to remain in the back seat, giving respect to public authorities or private investors.
- Use a mix of interventions with different gestation periods, costs, risks, and scale of impact.

¹ See Annex A for the logical framework containing the details of targets and indicators.



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- The operating context is challenging: it is complex, uncertain, things change all the time. To function within this context, enable staff to have responsibility and accountability, help them to learn, be responsive, seek opportunities, and apply imagination and initiative.
 - Use technical expertise combined with small-scale funding (£50-100,000) to leverage greater and co-ordinated investment by the private sector in the focal markets. Where possible, work with major commercial market partners to get larger, quicker, lasting results.
 - Support programme staff with short-term consultants as needed.

The technical objectives and facilitation tactics are discussed in greater depth in the “Interventions” chapter of this report.

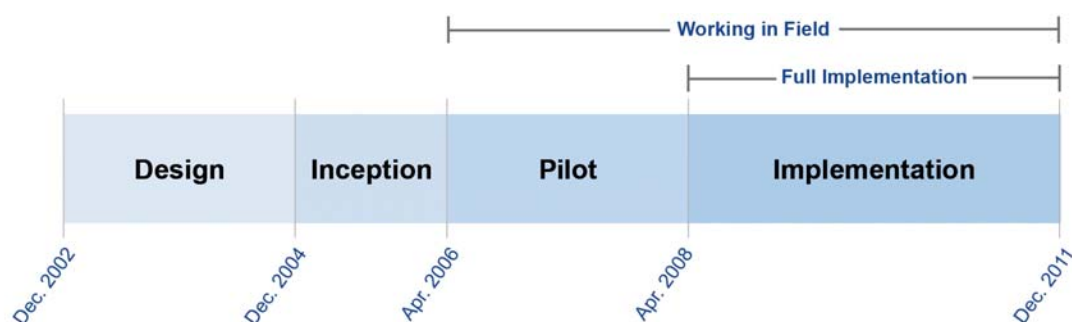


2. A BRIEF HISTORY OF THE PROGRAMME

Beginning in 2002, several convergent ideas came together to form the basis of the PrOpCom programme. DFID/Nigeria's Growth Team Leader/Livelihood Adviser (Kidd) was looking at commodity programmes that could provide more direct assistance to Nigeria's population. DFID/Nigeria's Head of Office (Kingsmill) was engaged in looking at drivers of change within Nigeria. Elsewhere within DFID, a small group of people was looking at development of the M4P paradigm. Changes were also occurring at the same time within Nigeria as government officials began looking at poverty reduction and the increased role of the private sector, which later culminated in the release of the National Economic Empowerment and Development Strategy (NEEDS) document. These activities resulted in Chemonics International tendering and winning the £15.06-million design and implement contract for PrOpCom in December 2002. Chemonics submitted a design proposal in mid-2003; by December 2004 the contract for inception and implementation was signed by DFID.

PrOpCom comprised three phases of activity (Figure 2). Phase 1 (December 2004-April 2006) comprised the inception phase as well as initial stakeholder facilitation attempts. Phase 2 (April 2006-April 2008) involved a strategic reorientation of the programme based on questions raised by DFID/London on the viability of the M4P approach in Nigeria. It became a pilot implementation phase with limited staff, scope, and funding. Phase 3 (April 2008-December 2011) involved a full-scale implementation push to achieve rapid impact of the redesigned programme strategy.

Figure 2. PrOpCom's Timeline



2.1 Inception (Phase 1: December 2004-April 2006)

In January 2005, Chemonics began start-up of Phase 1. The initial inception stage of the programme dealt with selection of commodities and detailing the implementation plan for creating systemic change in the selected commodities through the use of the M4P approach. The sectors to focus on as identified by the inception report were: rice, soya, and cassava. The early stages of the implementation phase involved the programme staff trying to identify points of entry for these sectors. Rice clusters in Abeokuta, Bauchi, and Kano were identified and investigated further. The project eventually decided to focus on the Abeokuta and Kano rice clusters.

Work with these clusters commenced with stakeholder interventions in which participants in every aspect of the value chain were invited to Kano and Abeokuta to voice their observations and concerns about their respective rice clusters. Once these issues were all outlined, the programme focused on the constraints that were easiest to address and



that showed potential to yield the biggest impact. As a result, baseline studies were commissioned and ground work commenced.

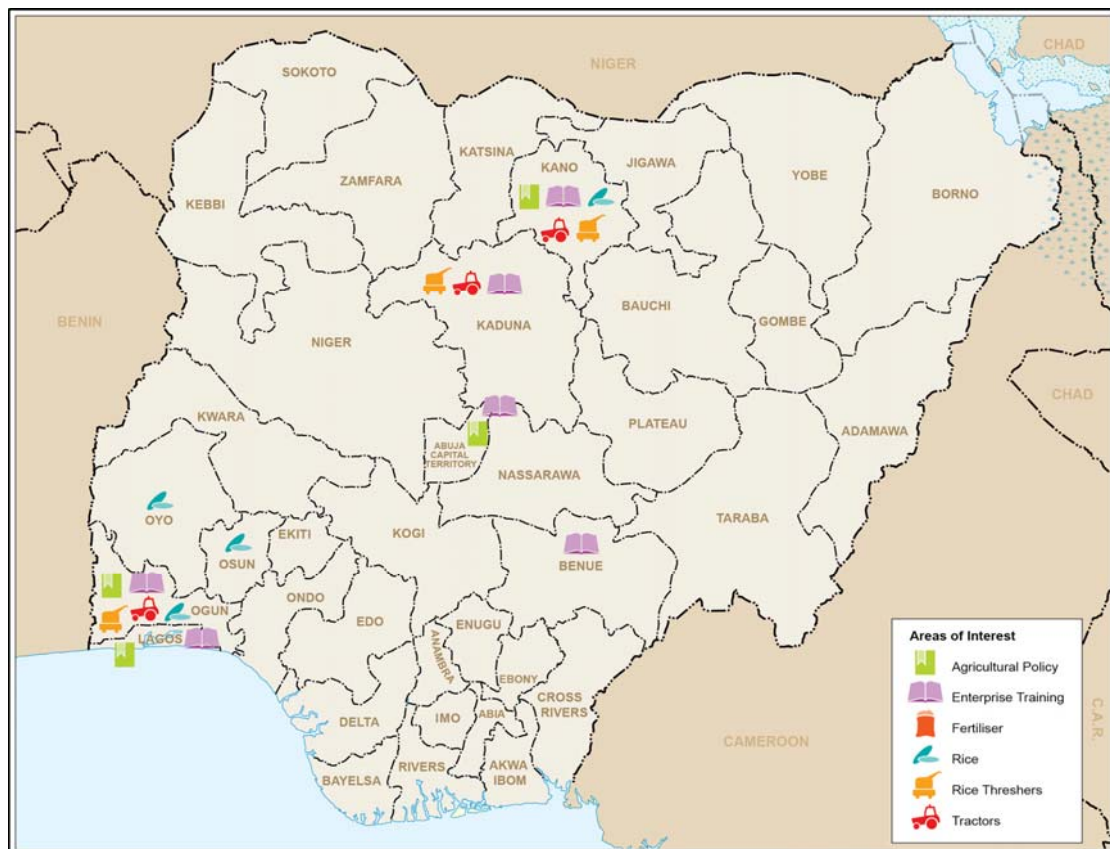
Initial Programme Markets of Focus:

- Ofada Rice Market (centred around Abeokuta)
- Kano Rice Market (along the Kura-Kano rice corridor)
- Agricultural Mechanisation Market (focused on the South-West, South-East and North-Central zones)
- Soya Market (centred around the middle-belt of the country: Benue, Nassarawa, and Plateau States)

Crosscutting Sectors with Potential to Impact Selected Markets:

- Business Development Services (cataloguing and networking of agricultural consultants and service providers, particularly in the geographical areas of our interventions)
- Enterprise Training Market (developing trainers from across the country)
- Agricultural Policy Support (targeting the national agricultural policy in general and rice policy in particular)

Figure 3. Initial Interventions



The initial inception phase document was assessed in June 2005 by an external review team that resulted in an “Aide Memoire” recommending an improved core team, as well as providing guidance in strengthening of three areas: strategy; achieving systemic impact; and creating and developing an identity and voice. DFID/Nigeria then instructed



the PrOpCom team to redo the analysis on a single commodity (rice), which the initial inception phase studies had shown to have the greatest potential for economic growth and poverty reduction within the programme's timeframe. Rice, then, became the main focus of the programme's initial interventions (Figure 3 above).

A response to this was prepared by Chemonics in September 2005, and in December 2005 the DFID office in the United Kingdom responded with an approval to move forward with a pilot implementation Phase II.

2.2 Pilot Implementation (Phase 2: April 2006-April 2008)

Once the programme began implementation in April 2006, programme staff noted a number of constraints that determined the approach the programme took during implementation. Among these constraints and their impact on implementation were the following:

- The original programme budget allowed limited resources for programme-related interventions. This led to a division of what was known as the Strategic Activity Fund (SAF) into two funding line items: (1) a Facilitation Fund for strategic management by the programme in support of its interventions (including consultant salaries, research subcontracts), and (2) a Stakeholder Intervention Fund (SIF), (later called the Mudu Fund²), which included grants provided to stakeholders to support market innovations and development, share risk, and issue challenges.
- The M4P approach requires extensive personal contact by programme staff. The number of staff members allocated in the initial programme design was less than optimal for this staff intensive work. Staff quality and skill, therefore, proved to be one of the most important elements in the success, or lack of success, of programme interventions. This led to a major focus in programme implementation on building staff capabilities and giving the Catalytic Intervention Managers (CIMs) broader responsibilities for the interventions they managed.
- For sustainable crowding-in of an intervention activity two things have to be in place: (1) there must be proper incentives and motivation created by the activity, and (2) identifiable stakeholders (market players) must take ownership of the activities' benefits and risk. This constraint proved to be the most difficult to deal with in programme implementation, and trying to deal with this constraint coloured the entire course of the programme. Interventions were stopped when it became clear that these conditions could not be found. New interventions were started seeking to find conditions that could meet this constraint, or interventions were modified to better enhance financial returns and incentives and stakeholder ownership.

As pointed out in the Aide Memoire, the initial PrOpCom team came with strong commodity and value chain development experience and a record of success; they did not, however, have extensive M4P skills. As the M4P approach became more developed and codified, changes in the staff were made to boost PrOpCom's M4P qualifications.

The need to focus on systemic change in a value chain required broader understanding of the political economy and the motivation structures within the value chain. Further, a more in-depth knowledge was needed of the market players in the value chain to be able to differentiate those players that would be effective champions and/or stakeholders in

² The specific SIF and Mudu Fund grants awarded are described in the Interventions Sections (5-11).



the programme's interventions. In the difficult social and political structure of Nigeria, with its high level of corruption, selection of the right partners who have a mutual interest with the programme and its interventions is essential for eventual intervention success. Given this requirement, the programme's initial strategy was to learn as much as it could through contacts and studies but also to launch quickly into what seemed to be likely successful interventions. This approach allowed the programme to put activities on the ground while also learning through experience by actual interaction with the market players in the selected activities. This interaction enabled the programme to learn who were good partners, who were willing to take risks and make investments, and who would take ownership of the activities that met programme objectives.

Much of this later effort was done through what the programme called a "stakeholder process," where the programme initially brought together representatives from all elements of the select value chain (Ofada rice, Kura/Kano rice, soya, agricultural mechanisation) and built upon this linkage to the broader actors in the value chain through large stakeholder meetings and follow-up local stakeholder engagement. The advantage of this approach included gaining an in-depth understanding of the value chain and its actors, but also the establishment of credibility of the programme with the principal market players including government officials in the areas where the programme operated.

The disadvantage of this approach was that activities in the interventions were often too random and diverse, failure rate was high, and overall systemic impact was less than it should be. For example, initial efforts such as rice in the Dass region of Bauchi state were soon stopped when no suitable partners could be found to work with. A series of efforts related to the soya value chain all proved non-workable due to lack of adequate partners to work with and the limited financial return to stakeholders of proposed interventions (*daddawa*). Political economy constraints also proved overwhelming in soya interventions. Nevertheless, a great deal was learned about the affected value chains and their market players. In addition, the programme began to have wide awareness and support in programme affected areas, particularly in Kano state. In short, during Phase 2 an emerging comprehensive implementation process was being developed but was not fully achieved.

In October 2007 an external review was done of the programme. This review led to an extended period of examination and revision of the programme's implementation approach. The DFID review suggested that the project take a step back from engaging directly with stakeholders such as farmers and processors and instead work through facilitators — national consulting firms with the capacity to manage the interventions themselves. In this scenario, PrOpCom would take on the role of "supra-facilitator" and outsource its work to these companies.

In February 2008, DFID hired a consultant from the Springfield Centre to assess the recommendations of the October review team and make suggestions on how best to implement these. The outcome of this visit was a proposal for Phase 3 of the project, which Chemonics submitted to DFID for approval in March 2008.

2.3 Full-Scale Implementation and Impact (Phase 3: April 2008-December 2011)

During the late spring and summer of 2008 new staff were recruited and a stronger focus on policy work responding to a stakeholder request by the Kano state government was started. An expanded monitoring and evaluation process was begun based on impact logics. Extensive M4P training was given to staff in July in Glasgow. In July 2008, a new



team leader was retained; when he arrived in Nigeria in September 2008, a new form of PrOpCom implementation began to take shape.

PrOpCom has always viewed itself working in an entrepreneurial and opportunistic manner. Much of this approach was evident as it moved from Phase 2 to Phase 3. In Phase 3, PrOpCom shifted away from a broad commodity value chain focus to more targeted interventions and selected stakeholder partners primarily in the service markets (tractor and thresher supply, fertiliser delivery, and mobile banking). The knowledge gained from the Phase 2 intervention was used to select partners and shape these interventions. In addition PrOpCom looked to larger, more important market players in these service markets, whose engagement would lead to greater impacts on the sector. The programme also began greater focus on rules that governed action within these sectors seeking to catalyse more broadly felt systemic change.

By January 2009 PrOpCom had cancelled its soya intervention and began to sharply scale back interventions with Ofada rice. The programme also refocused and reduced efforts in the Kano rice sector. This change in direction was assisted by change in government attitudes related to private sector involvement and use of subsidies for fertiliser and other farm inputs. DFID was also very supportive of the new direction as the programme's monitoring and evaluation (M&E) system based on the use of the Donor Committee for Enterprise Develop (DCED) evaluation structure provided greater information on the programme's outcomes and impact.

As the programme moved into its final years, the outcomes and impacts of its new direction began to build. A senior monitoring specialist was engaged. Additional capacity building of staff through formal M4P training and consultant mentoring occurred. The programme broadened its geographic reach with activities related to tractors in the middle-belt and southeast as well as in the north. Fertiliser distribution interventions reached out to the north, the west, and middle-belt regions. PrOpCom began more direct work with large firms such as Notore, Mahindra & Mahindra tractors, and Springfield Agro. Policy activities opened in new areas such as Adamawa state. Responding to the positive results they were receiving, these firms and state governments began putting more funds and resources behind programme interventions, leading to greater ownership and crowding-in of these activities. A new logframe, using the DFID numbers logframe template, was designed to reflect these new markets and was approved by DFID in October 2009, by which time the final phase of the programme was well under way.

The Final Programme Phase Focused on the Following Markets:

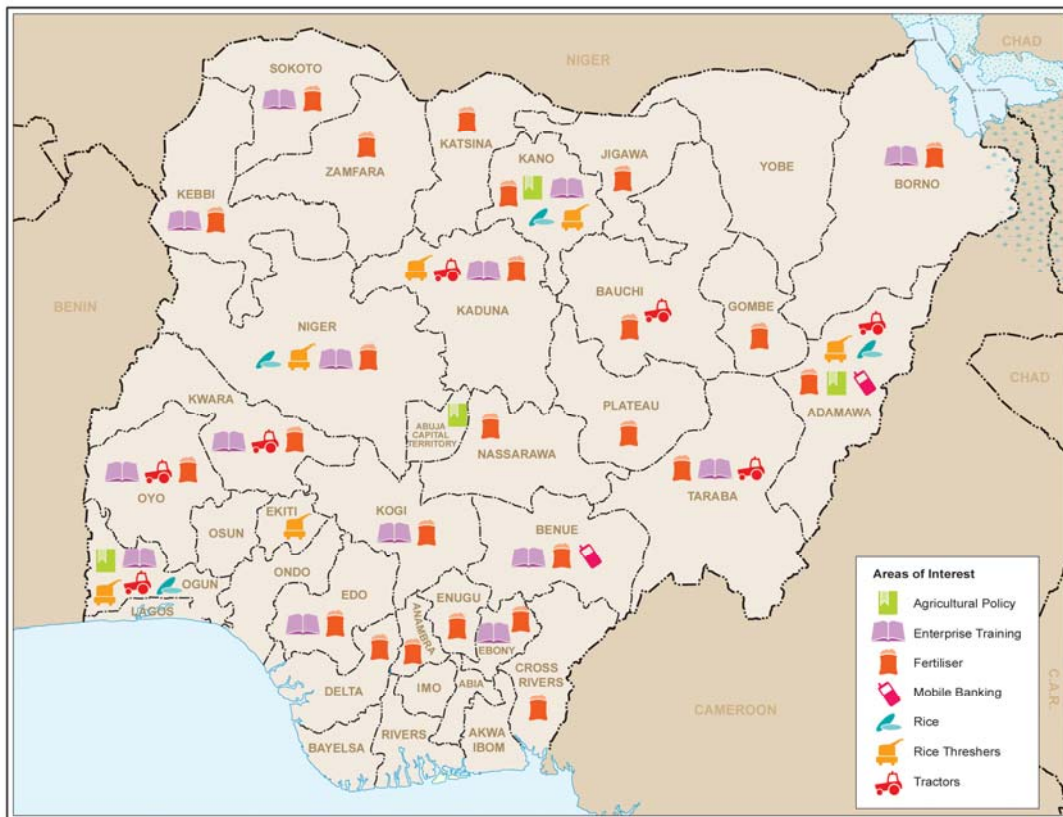
- Rice Parboilers (in Kano state, and later Adamawa state)
- Rice Threshers
- Tractors (initially in Kaduna, Ogun, and Oyo states)
- Fertiliser (initially in Katsina and Niger states, later rolling out to 25 states)

Crosscutting Sectors of Focus Included:

- Agricultural Policy (in Adamawa, Kano, and Ogun states, as well as at national level)
- Agricultural Enterprise Training (terminated in April 2010)
- Mobile Banking



Figure 4. Full-Scale Implementation



A mini-assessment by DFID in April 2010 indicated the programme was making progress. A more detailed annual review in October 2010 indicated that the programme had achieved much of what was expected of it. After years of being on the cusp of success the programme had finally broken through. PrOpCom's efforts had shown that M4P could work in Nigeria, a proposition that had been vocally dismissed by DFID/London at the early stage of the programme. Based on this assessment and a favourable view of the programme by DFID, PrOpCom was extended to the end of 2011 to allow time for DFID to develop and tender a follow-on programme, the Rural and Agricultural Markets Programme (RAMP) to overlap with PrOpCom. RAMP will build on PrOpCom's success with interventions in commodity and service sectors directed primarily to northern Nigeria and women (Figure 4).



3. SUMMARY OF KEY CHANGES IN THE MARKETS

3.1 Rationale

DFID/Nigeria developed the PrOpCom programme to work with agricultural commodity and service markets. While PrOpCom does not have full documentation of the rationale of DFID's decision, a look at the situation at the time of PrOpCom's conception provides some idea of why DFID made this choice. In 2002 when PrOpCom was being considered, much of DFID's funding was directed towards supporting selected state governments' fiscal and budgeting capabilities, health and education programmes, and policy. These activities tended to deal with Nigeria's poverty issue in an indirect manner. DFID had few, if any, direct interventions in the local economy or with the private sector, particularly in agriculture. Yet at least 80 percent of Nigeria's population of 150 million people based their livelihoods on or around agriculture. That fact, plus the awareness that some 20 percent of Africa's people live in Nigeria, made DFID and others concerned that the Millennium Development Goals (MDG) — in particular MDG Goal 1 to reduce extreme poverty in half by 2015 — could not be met unless agriculture and the rural sector in Nigeria had significant development and growth. These concerns contributed to DFID's move to create a market-based agricultural development programme in Nigeria.

3.2 Background Market Constraints

As PrOpCom was being developed and started implementation, a host of market constraints became evident. In almost all agricultural sectors in Nigeria, poor smallholders with extremely low levels of productivity were the norm. Varieties and technologies were outdated. Agricultural input availability and use was among the lowest in the world, let alone Africa. Marketing and processing systems were bloated with high transaction costs. The quality of local agricultural products on the market was extremely poor — often dirty, filled with rocks, or adulterated. Packaging was primitive.

There were a number of causes for these symptoms of poorly functioning agricultural systems. Among these causes were the following:

- Corruption and other institutional factors, including limited access to information, and increased transaction cost throughout the agricultural sector.
- Investment in agriculture and its supporting organisations and institutions had been lagging for a number of years.
- While not adequately funding basic public sector agricultural needs — such as research, extension, and safety and sanitary regulations — government, nevertheless, played a highly intrusive role in the agriculture sector through selective use of subsidies and other government largess mostly driven by political purposes.
- Donors' efforts, to a large extent, sought to supply and support the missing public sector agricultural goods and services. However, these donor-supported activities were not sustainable, as they would end when their projects were completed.
- Government's politically driven interventions in the agricultural sector greatly increased uncertainty and risk in the agricultural marketplace for agricultural services and support activities. This, in turn, discouraged private sector investment in the sector.



3.3 How Has the Market Landscape Changed?

After more than five years of working in the field to improve agricultural markets in Nigeria, many of the constraints cited above still remain. Yet evidence of some market system changes exist:

- The federal government has stated the need to focus on agriculture as a business — not as a donor project — and to develop strategic partnerships with the private sector to stimulate investment. State governments have recognised the dearth of state-level agricultural policies that clearly outline their long-term strategies for achieving key commodity growth through private sector investment.
- The Federal Ministry of Agriculture and Rural Development has set forth its plan for an agricultural transformation agenda, based on the President’s “Transformation Agenda.” The plan cites data that coincides with PrOpCom’s evidence-based analytical work in the policy and fertiliser sectors. One of the key vision statement points says: “Stimulate a thriving private sector fertiliser industry, with government getting out of fertiliser procurement and distribution”.
- The private sector has invested more than N1 billion (£4.02 million) in agricultural support markets. The primary sources of investment have come from the banking, agricultural machinery distribution and service, and fertiliser sectors.
- Agricultural productivity increases averaging 31 percent have been seen among poor farmers in at least 12 states across Nigeria, as a result of PrOpCom’s work with a lead fertiliser company to provide improved rural access to affordable fertiliser.
- The banking sector has increased its support of agricultural lending, both through the Central Bank of Nigeria’s Agricultural Credit Guarantee Scheme and through commercial banks developing individual agricultural loan products for private market investors.

4. PROGRAMMATIC IMPACT

In order to track its contribution to the changes in the market system, PrOpCom relied on a combination of monitoring methodologies and standards, including the DFID logical framework (logframe), the M4P strategic framework, and the DCED standard.³ These frameworks allowed PrOpCom to clearly monitor and evaluate the connection between the programme’s strategic intervention activities and its overarching goals.

The impact achieved relative to the DFID costs spent are discussed in more depth in the following two sections:

- Intervention Sections 5-11 discuss the grants disbursed and the market achievements by intervention.
- Value for Money (Section 17) shows leverage of total programme costs to impact achieved by intervention.

³ The Organisation for Economic Co-operation and Development (OECD) has set forth its own standard for evaluating programmatic impact, the DAC (Donor Assistance Committee) Criteria for Evaluating Development Assistance. The DAC Criteria include five measures: relevance, effectiveness, efficiency, impact, and sustainability. While this report has not organised its discussion of the programme’s impact along these lines, each of the criteria are discussed throughout the report’s various sections.



4.1 Logframe: What PrOpCom Was Measured Against

PrOpCom's programmatic impact was measured against a logical framework (Annex A), mutually agreed on with DFID, which detailed the overarching goal and purpose of the programme:

- Goal: To improve pro-poor growth in non-oil sectors in Nigeria.
- Purpose: To Improve the pro-poor performance of selected agricultural market systems.

Within the context of the overarching goal and purpose, the logframe also details five expected outputs of PrOpCom intervention activities:

- Output 1: Stimulate Growth in/around Kano and South-West Rice Markets (through quality improvement and branding).
- Output 2: Rural Financial Services Markets Deepened (through introduction of mobile-banking services).
- Output 3: Fertiliser Market Deepened (through product diversification and farmer training).
- Output 4: Stimulate Private Sector Orientation in Agricultural Mechanisation Services Markets.
- Output 5: Relevant Institutional Support Systems Developed.

PrOpCom measured its progress along the outputs, purpose and goal against indicators of change in PrOpCom's selected agricultural markets: rice (Ofada, parboiling, marketing), fertiliser, agricultural mechanisation (tractors, threshers), financial services, and crosscutting institutional support markets (enterprise training and agricultural policy). PrOpCom's logframe is a dynamic document that itself underwent several changes over the three phases of the programme as the approach to the markets evolved. Annex B illustrates how the logframe evolved in the early programme phases.

In addition to measuring its progress against the logframe indicators, PrOpCom also calculated programmatic impact across three universal indicators: (1) additional jobs generated,⁴ (2) additional net income generated,⁵ and (3) scale, i.e., number of value chain actors reached. These universal indicators correspond to the goal-level impact of the logframe. Furthermore, at the purpose level PrOpCom measured private and public sector investment catalysed (as proxies for partners' buy-in to change, and hence the sustainability of the change). Other purpose-level impacts measured include: (1) percent change in productivity⁶ of poor households engaged in selected agricultural market systems, and (2) number of market innovations introduced. Details on the systemic changes sought, including crowding-in of market actors, are described in the Intervention chapter of this report (Sec. 5-11).

⁴ One job is defined as one full-time equivalent (FTE) on an annual basis; one FTE equals 240 man-days.

⁵ Incremental net profit over baseline.

⁶ "Productivity" included measures of both crop yield and volume throughput increases.



4.2 Impact: How PrOpCom Measured Up⁷

| | | Direct | Indirect |
|------------------------------|---------------------------|-----------------|----------------|
| Dec. 11 | FTE Jobs | 16,345 | 1,288 |
| | Outreach | 1,188,846 | 75,334 |
| | Net Income | N9,072,533,585 | N1,243,706,284 |
| | | £35,419,937 | £4,855,534 |
| | Public Sector Investment | | N4,899,998,680 |
| | Private Sector Investment | | N1,244,196,783 |
| | Total Investment (N) | | N6,144,195,463 |
| | Total Investment (GBP) | | £23,987,458 |
| Dec. 13 | | | |
| Dec. 13 | FTE Jobs | 16,345 | 12,853 |
| | Outreach | 1,188,846 | 1,047,232 |
| | Net Income | N12,561,137,268 | N9,472,212,224 |
| | | £49,039,741 | £36,980,316 |
| | Public Sector Investment | | N5,704,696,197 |
| | Private Sector Investment | | N1,277,834,283 |
| | Total Investment (N) | | N6,982,530,480 |
| | Total Investment (GBP) | | £27,260,389 |
| % of Females Impacted | | | |
| | | 7% | |

Aggregate (corrected for overlaps)

At the goal level, PrOpCom expects additional full-time employment of 17,633 by the end of the programme in December 2011, rising to 29,198 by December 2013. By the end of the programme in December 2011, PrOpCom expects to see an additional income increase of N10,316,239,869 (£40,275,471), or an increase of 37 percent over baseline, a significantly higher achievement than the programme end milestone of 10 percent over baseline. The additional income increases to N22,033,349,492 (£86,020,057) by the end of the monitoring period in December 2013. The outreach is calculated at 1,264,180 in December 2011, and 2,236,078 in December 2013. The fertiliser intervention represents the greatest contributor to the total income generated, due to the continued level of farmer outreach and expansion anticipated from PrOpCom's lead commercial partner.

At the purpose level, by December 2011, PrOpCom expects to see a total investment of N6,144,195,463 (£23,987,458), expected to go up to N6,982,530,480 (£27,260,389) by December 2013. PrOpCom's involvement in agricultural markets in Nigeria has resulted in the introduction of 25 market innovations against the programme end target of 30 innovations. As for productivity, by December 2011, PrOpCom will be achieving an increase of 26 percent over baseline, against the final milestone of 15 percent over baseline. Fertiliser again was the greatest contributor to productivity due to its broad

⁷ PrOpCom's impact is measured in two parts: (1) end of the programme (December 2011), and (2) end of the monitoring period (December 2013). The additional period of two years provides the time required for systemic changes to establish themselves in the markets and be counted accordingly.



scale. But the tractor intervention played an appreciable role, contributing a 63 percent increase in productivity.

4.2.1 Impact on Women

PrOpCom's monitoring system was not originally designed to target women or disaggregate its impact along gender lines. Later, however, PrOpCom recognised the importance of measuring its interventions' impact on women. The programmatic outreach of female beneficiaries stands at 7 percent of the total outreach, thus impacting 88,492 female beneficiaries by December 2011 and improving to 156,525 by December 2013. The two interventions producing the most significant impact on women were the fertiliser and parboiler interventions, which achieved female outreach of 14 percent and 100 percent, respectively, of direct intervention target enterprises. For the fertiliser intervention, impact assessments recorded net income generation of N15,904 per hectare. The Adamawa rice parboiling intervention measured a higher increase in net income of N472,414 per parboiler.

PrOpCom conducted a study on the effects of increases in women's income on their social empowerment. This study argues that, due to the improved asset bases of PrOpCom's female beneficiaries, they are now less vulnerable and have improved levels of social empowerment. An executive summary and key data indices are included as Annex D.

4.3 Strategic Measurement of M4P Programmes

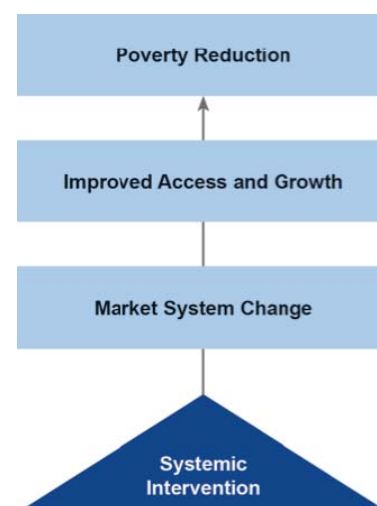
PrOpCom's approach to data management and impact monitoring followed the M4P strategic framework (Figure 5), an approach to measurement based on results chains. The M4P strategic framework states that a systemic intervention activity leads to a desired market system change, which in turn leads to improved access to services and growth (e.g., increased productivity) of target beneficiaries, which ultimately leads to poverty reduction in selected market systems.

4.3.1 DCED Standard

The data management and monitoring system used in PrOpCom also adhered to the standard set by the Donor Committee for Enterprise Development (DCED) for monitoring and evaluation of an M4P program. The standard comprises instructions on the following key points (among others):

- Articulating a results chain/impact logic
- Defining appropriate indicators for each major step in the results chain as well as including universal indicators of scale, jobs, income
- Attributing system changes to the program (or to other factors)
- Relating those changes to the program costs
- Managing the results measurement system⁸

Figure 5. M4P Strategic Framework



⁸ Measuring results in PSD/M4P; Jim Tanburn; 2009. For more information on the DCED standard: <http://www.enterprise-development.org/page/measuring-and-reporting-results>.

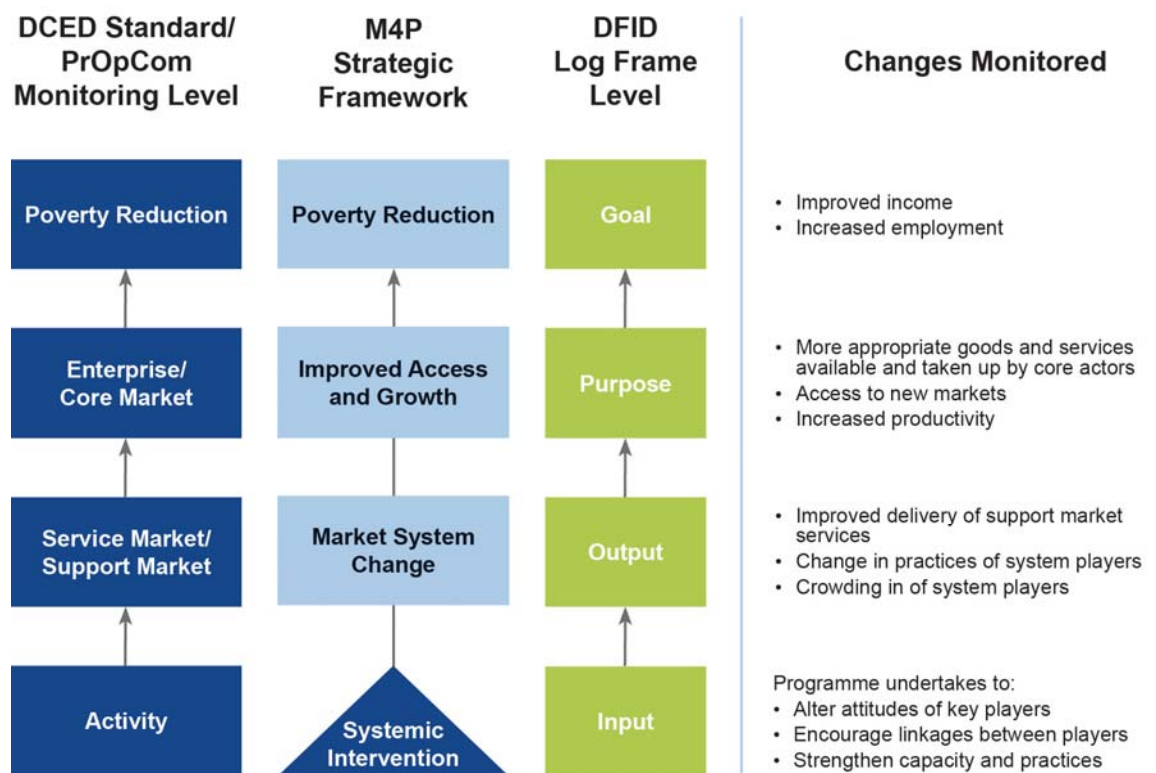


A mock audit was carried out on the PrOpCom monitoring and evaluation system in September 2010, which revealed general compliance with the DCED standard.

4.3.2 Methodology of Measuring Impact

In the DCED standard, intervention results chains are arranged in four logical levels: activity, service market, enterprise, and poverty reduction. Each level comprises a set of indicators. Similar to the M4P strategic framework, indicators from the lower levels of the results chain feed up to the universal indicators at the goal level. PrOpCom’s results chains mirrored the structures of the DCED and M4P frameworks. Figure 6 demonstrates how these results chains related to the DFID logframe.

Figure 6. PrOpCom/DCED Levels, M4P Levels, and DFID Levels



To track the results chains of each intervention, PrOpCom used a document called the Intervention Guide (IG). The IG of each intervention included a monitoring and evaluation plan, which ensured that indicator measurements were being conducted at appropriate times (e.g., crop productivity measured at harvest). Furthermore, the indicators themselves were continuously assessed for change — as interventions changed directions or added more activities, new indicators were designed or old indicators revised. PrOpCom used a variety of social research methods and evaluations to measure indicators, such as pre- and post-intervention evaluations to measure the change experienced by beneficiaries, or control and treatment group evaluations to provide a picture of the counterfactual. Due to resource constraints, implementing a statistically significant evaluation was not always possible, resulting in a variable range of indicator values. In order to reduce the

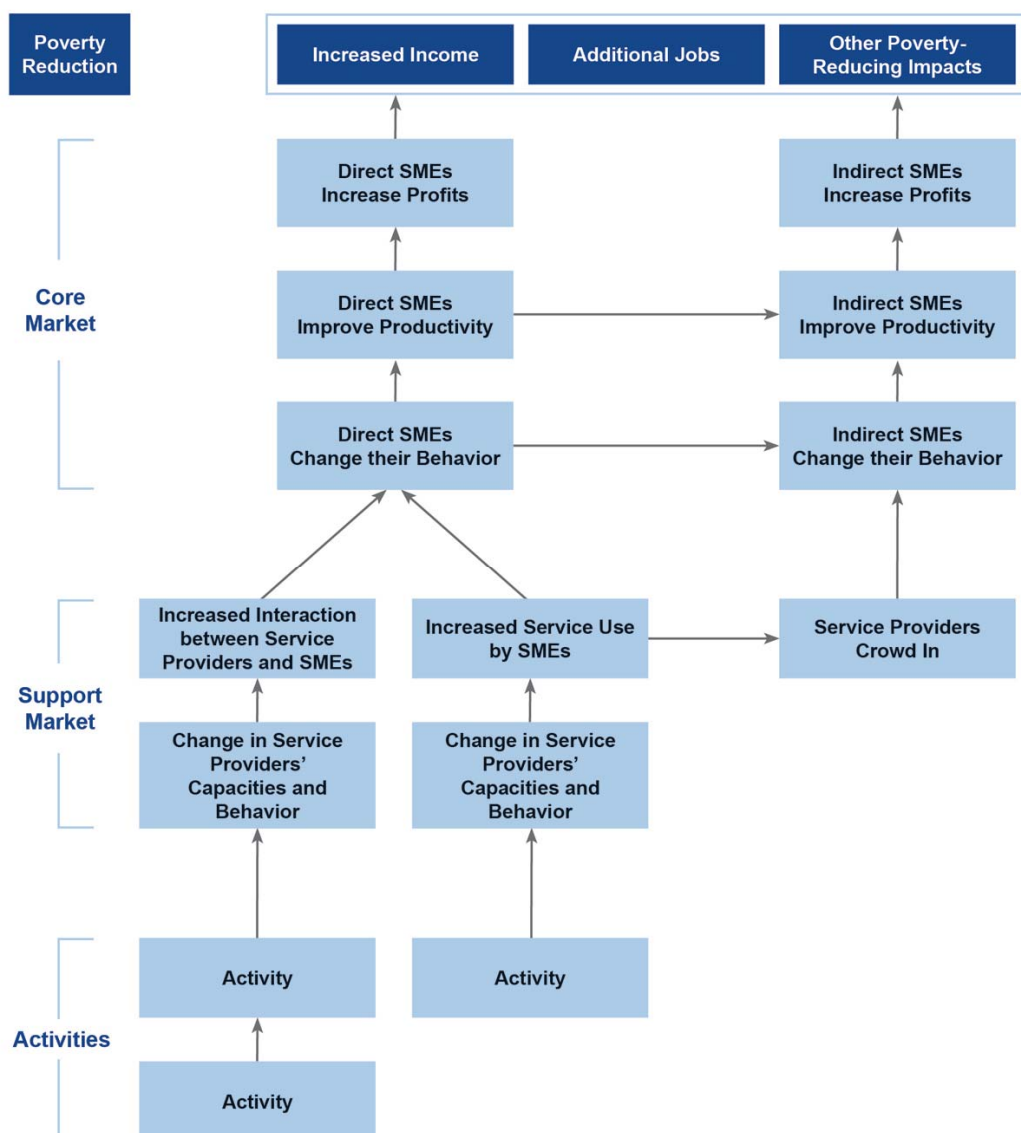


chance of overestimating its impact, PrOpCom utilised the more conservative end of the range of values to calculate changes or benefits accrued.

4.3.3 Attribution

The DCED standard also highlights the importance of correct attribution measurement for M4P or private sector development projects. PrOpCom's impact logic framework (Figure 7) sought to ensure correct attribution by providing a series of causal links. These links assume that upper level objectives are achieved due to the completion of lower level objectives. The assumptions are verified through research studies and monitoring activities.

Figure 7. Simplified Intervention Results Chain for Value Chains



Attribution is always stronger at the activity and support market levels because program facilitators working at the activity level have direct contact with the service providers operating at the support market level. At the core market and poverty



reduction levels, impact is affected by factors that are outside of the control of the program facilitator; attribution at these levels is therefore weaker. In order for PrOpCom to ensure it could attribute income increases to its own activities, PrOpCom validated the strength of the causal links between activities and outcomes by conducting extensive field research at both the support and core market levels.

PrOpCom also actively monitored key attribution pitfalls, which included:

- Dilution of activity causality due to the presence of other donors or programs working on similar issues in PrOpCom's selected markets
- Dilution of attribution over time in the selected markets

To counter these challenges to proper attribution, PrOpCom vigilantly observed the activities of other donors and programs in its selected agricultural markets. This awareness also extended to private and public sector entities involved in similar activities. PrOpCom limited its impact measurement to two years after the end of the intervention to minimise the dilution of attribution over time and measure only that impact which could be concretely attributable to PrOpCom activities.

In some interventions, PrOpCom was more engaged in establishing a market than in making an existing market work well, e.g., policy or mobile banking. The advantage of establishing a market is that any results or impact stemming from that market may be very clearly attributable to PrOpCom.

4.4 Sustainability and Managing Risk

Sustainability of systemic changes is central to the M4P approach. In order to ensure sustainability, M4P programs analyse the two questions of (1) "who does" (i.e., have market actors clearly defined and embedded roles and responsibilities going forward to ensure continuity?), and (2) "who pays" (i.e., is there an agreed mechanism and allocation of funding to carry out the roles and responsibilities?).

To assess the sustainability of PrOpCom's interventions, the programme sought evidence of the following:

- *Well-aligned incentives:* When incentives for change are positive for all actors in the new market models, the likelihood of sustainability is high. Combining a more profitable business model for a company with greater service levels for consumers is an example of well-aligned incentives.
- *Capacity development of service providers:* When partners show greater organisational capacity, e.g., greater management skills or increased transparency over operations, market changes are more likely to be sustained.
- *Creation of space for innovation within markets:* When program partners or service providers begin innovating new products (beyond the scope of the original intervention) to exploit the gaps in the service market, the likelihood of sustainability is high.



- *Leveraged investment:* This measure of investment indicates the level of commitment of our private sector partners to the change introduced; commitment signals continuity.

Despite evidence of sustainability in selected interventions, the inherent risks of a market may ultimately affect the continuity of change. These risks could arise from facilitators' interactions with partners (both public and private) as well as from the markets themselves. At the programmatic level, the general risks that PrOpCom faced were:

- *Market establishment as opposed to market development.* Establishing a new market is risky because no such thing has been done before. Partners are reluctant to enter into empty space; it can be more daunting to them than innovating against current practices.
- *Vulnerability of the Nigerian private sector.* The Nigerian private sector is still emerging from the paternalistic influence of the public sector. As a result, many private organisations active in Nigeria's agriculture sector have been long-standing suppliers to the government and show a preference to the ease of public contracts. Government's ability to distort the market through direct interference remains a constant threat. When private companies do step out of their comfort zones to serve the end market directly, there is the risk of how the government will respond.
- *Working with public sector partners.* As the Nigerian market has been heavily dominated by the public sector, the ability of private sector stakeholders to hold constructive dialogues with the public sector to promote transparency, accountability and continuity has been limited.

In strategically managing and monitoring its interventions, PrOpCom accounted for risk factors. Each IG had a table that defined the risks to achieving impact or completing key objectives, and proposed ways to mitigate those risks. In areas where risk of achieving impact was high, PrOpCom's data system introduced a discount factor in the measurement of anticipated impact.



INTERVENTIONS

Photographer: Tunde Oderinde | PrOpCom has forged a unique private-sector partnership among tractor distributors, banks, and aspiring tractor-operations entrepreneurs to improve farmers' access to tractor services in Kaduna, Ogun, and Oyo states.



5. AGRICULTURAL MECHANISATION

In Nigeria, agricultural production and productivity are adversely affected because of insufficient farm power available to farmers, low labour productivity and/or labour scarcity. Greater mechanisation can contribute to increased food production, productivity and advancement of rural economies. In almost any agricultural production system the annual expenditure on farm power, whether on labour, draft animals, or fuel and depreciation of machines, largely exceeds the costs of other inputs such as agro-chemicals and seeds. Farm mechanisation has been helpful to bring about a significant improvement in agricultural productivity in many developing countries.

However, creating effective, efficient markets for agricultural mechanisation in Nigeria has been a bumpy road. Government initiatives had not been successful and were blamed for exacerbating rural unemployment. The government chose to supply agricultural machinery and equipment through the agricultural agencies and directly intervene in the market. This had the result of actually reducing the supply of machinery available to poor farmers, as government-run businesses are intrinsically inefficient and undermine market-led development.

PrOpCom's initial intervention approach to the agricultural mechanisation market aimed to increase the coordination, information and knowledge-sharing of actors in the mechanisation market system. PrOpCom's early activities included studies and grant support for increasing thresher supply in the southwest and Kano. Second, PrOpCom worked with stakeholders to encourage buy-in to the agro-service activities in the southwest and Kano, including grant support to facilitate the development of the service markets in those regions. PrOpCom also conducted studies to produce comprehensive statistics on the SME rice-processing sub-sector in Kano (numbers of functional mills, their locations, available equipment, capacities and operational viability). This could be used to demonstrate to private sector players, such as existing rice processing stakeholders and other potential investors, on the most technically efficient, cost effective, profitable integrated processing technologies and sources of finance.

PrOpCom furthermore facilitated the formation of three zonal agricultural mechanisation networks comprising fabricators, engineers, representatives of technology centres, universities, and end users. The objective was to enable the networks to better represent the interests of their members and assimilate key principles emerging from on-the-ground experience. PrOpCom engaged the services of New Nigeria Foundation (NNF) to support the capacity of the zonal networks. However, several months after the end of the capacity support by NNF and a hired organisation development consultant, these networks still could not operate independent of the project that birthed them. The members' main interest appeared to be to get donor funding.

As a result, PrOpCom shifted its approach and decided to work specifically on agricultural machine markets relevant to the programme's catalytic interventions, namely tractors and rice threshers. Sections 5.1 and 5.2 will further describe PrOpCom's interventions in these two markets.



INTERVENTION: Tractor Summary

BACKGROUND

Nigeria's tractor market has considerable potential for improvement: there are an average of 6.8 tractors per 100 sq. km. of arable land, compared to 26.9 in Kenya and 195.3 globally.⁷ The dearth of tractor use among Nigerian farmers is caused by public sector control of the sector. Government officials procure tractors from importers to supply to public agro-service centres or to resell at subsidised rates — both of which usually end up benefitting wealthy farmers with political ties. Due to the public procurement, tractor distributors do not sell to the private market, nor have they developed spare parts or after-sales service networks to serve the end customers. As a result, when farmers' tractors break down, they do not know how to find the needed parts or mechanics; an estimated 50 percent of Nigeria's tractors now lie unused in a state of disrepair.

STRATEGY

PrOpCom aimed to develop a sustainable, privately led market system through which poor farmers could gain greater access to tractor services. PrOpCom partnered with Springfield Agro Ltd, the commercial distributor of new Mahindra tractors, to sell directly to the end market rather than government. This included setting up the necessary spare parts and implements after-sales/service networks, and providing business services to owners in order to develop the market. PrOpCom facilitated the development of a lease-finance product by First Bank of Nigeria for interested buyers who were members of the Tractors Owners and Operators Association of Nigeria (TOOAN). This would enable buyers to finance the purchase of the tractor asset, which they would use to sell tractor services to farmers in their regions.

KEY INTERVENTION ACTIVITIES

- Piloted a risk-sharing model to innovate a financial product for tractor acquisition.
- Stimulated market diversification toward more affordable quality tractors and implements.
- Strengthened private sector sales and distribution channels of tractor market.
- Trained tractor operators and farmers in tillage operations.

KEY MARKET SYSTEM CHANGES

- Springfield Agro, First Bank, and TOOAN piloted a new private-sector sales business model, which was demonstrated as viable. Crowding-in is beginning to occur.
- There are an increased number of tractor service mechanics as well as an increased supply of service and repair parts available in the tractor support market. This helps sustain the market and reduces the risks to banks and investors.
- Tractor operators are more aware of the benefits of using other tillage implements for land preparation. This improves the level of service provided to farmers.
- Farmers impacted are now able to cultivate multiple seasons due to improved access to tractor services.

KEY CHALLENGES AND RISKS

- Farmers are accustomed to receiving tractor subsidies through the public sector schemes, and state agencies think it's their job to supply tractors and implements with a subsidy.
- Market linkages and social relationships among financial institutions, tractor vendors and aspiring tractor operators are weak and remain tenuous.
- Financial institutions are hesitant and in some cases lack the capacity to innovate agricultural lease-finance products.
- Banks were hesitant to undertake their own risk analysis of the transaction, and required overly heavy guarantees on the lending to farmers.
- Poor organisational capacity of TOOAN, the initiative's service member organisation (SMO) partner.

KEY LESSONS LEARNED

- Partners needed far more support than PrOpCom expected. Their capacity to take the strategy forward was less than the programme had initially assessed.
- It is possible to get banks to change. For example, banks were comforted by the use of the tractor as collateral for loan. TOOAN's ability to assure the bank was vital. Information sharing also helps provide impetus for change.
- The need to strengthen the tillage skills of tractor operators to give crop productivity benefits to farmers remained.

⁷ World Bank data.



5.1 Agricultural Mechanisation: Tractors

5.1.1 Introduction to the Tractor Market

More than 70 percent of farmers in the Nigerian agricultural sector are smallholders who still use the traditional hoe and cutlass to tend their fields, an inefficient and time-consuming process. Agricultural labour is scarce, due to the drudgery of manual farm work and the migration of young labourers to the urban areas. This results in lost cropping opportunities; farmers cannot find labourers for planting, and seasonal demand causes labour costs to rise. Many day labourers lack the incentives or tools to perform the high quality work needed to improve productivity. Due to labour scarcity and inefficiency, coupled with farmers' insufficient use of mechanised farm power, agricultural production and productivity in Nigeria has been adversely affected. Yields have stagnated relative to increases in other regions of the world.

Farmers desire tractor services to improve their production and productivity, but supply is lacking, with an average of only 6.8 tractors per 100 sq. km. of arable land in Nigeria, compared to 26.9 in Kenya and 195.3 globally.⁸ The market for tractors in Nigeria is therefore huge, with an estimated supply-demand gap of over 60,000 tractors,⁹ and an unmet market value of N252 billion.¹⁰ Federal and state governments procure tractors in order to help bridge this gap, and sell them (often at subsidised rates) to public agro-service centres and farmers' associations. However, the government tractor schemes are currently not serving the farmers effectively. The public tractor services have the capacity to serve less than 10 percent¹¹ of farmers' demand. Where such services are available, wealthier farmers with close political ties and patronage relationships are favoured, creating waiting lists of many months for 'peasant farmers' – little use to those needing to plant within specified timeframes.

As a result of government's procurement practices, private distributors and machine importers court government purchasers to win large-scale contracts, and fail to develop the market for individual tractor buyers. Viewed as too poor, too untrustworthy, or too complicated to reach, distributors simply do not attempt to sell their products to individuals in rural regions. Smallholder farmers are further constrained from purchasing tractors themselves due to the high upfront cost of tractors coupled with their limited access to finance.¹² Banks are unwilling to lend money to small private buyers, superficially viewing the business as too risk-prone. The banks furthermore lack loan officers capable of assessing agriculture credit risks; officers need to be proactively convinced that agricultural businesses can be viable, and farmers can be profitable customers.

Government contracts further distort the tractor market in that they do not stipulate requirements for robust after-sales services for the end users; as such, distributors do not develop sales departments, spare parts dealerships or maintenance networks. Once the tractors need maintenance or spare parts, farmers cannot get them. Tractor owners and operators often have insufficient knowledge on how to

⁸ World Bank data.

⁹ Based on 70 percent of 16 million smallholder families, at 137 farmers' outreach per tractor (81,752). Dr. Abba Ruma, Minister of Agriculture, set baseline of existing functional tractors in Nigeria at 20,000 in 2009.

¹⁰ 61,752 tractors at N4,080,000 per tractor.

¹¹ Field assessment on agro services by PrOpCom team March 2009.

¹² Field assessment on agro services by PrOpCom team March 2009.



operate and maintain them, leading to poor performance and mechanical breakdown. The lack of knowledgeable mechanics or spare parts suppliers, especially in rural areas, further limits the tractors' operational life; as a result, only 50 percent of Nigeria's tractors are functional.

5.1.2 Tractor Intervention: Pro-Poor Rationale

PrOpCom recognised that there was little business connection among tractor distributors, banks, tractor owners/service providers and the farmers themselves. By fostering a linkage between the distributors and the actual end buyers, as well as helping potential buyers obtain access to credit to purchase the tractors, more tractors could be supplied into the market. The government channel would hence be circumvented, and more poor farmers would be able to access the private tractor service market.

Increasing the tractor services available to Nigeria's smallholder farmers would alleviate their labour shortage problems. Furthermore, the potential benefits of using a tractor instead of manual labour were high, reducing land preparation costs by 30 percent,¹³ and increasing outputs and productivity through more timely and precise cropping operations and improved soil conditions. Farmers' use of tractors would also help increase areas under cultivation. The combination of increased crop yields plus land under cultivation would increase farm output and raise incomes.

5.1.3 Tractor Intervention Partner Summary

The Tractor Owners and Operators Association of Nigeria (TOOAN) was introduced to PrOpCom by the Agro Services Corporation of Ogun state. TOOAN is a nationally registered association established in 1983 to protect and promote the interests of professionals in the fields of tractor ownership, operation and maintenance. It serves toward the advancement of agricultural mechanisation as a means to improve farmer welfare and food security in Nigeria. PrOpCom engaged with TOOAN, exploring the preferred tractor their members would like to acquire. This led PrOpCom to Springfield Agro Limited (SFAL).

Next PrOpCom partnered with Springfield Agro, the licensed distributor of Mahindra & Mahindra tractors in Nigeria, to develop its private sector sales channel. Through this partnership, PrOpCom aimed to equip the private tractor service providers (TSPs) with new, functional Mahindra tractors. This sales model – linking private sellers to private buyers – aimed to provide an alternative to the dysfunctional public schemes upon which TSPs and farmers had come to depend. PrOpCom also explored other tractor distributing companies — such as NICA Global Resources (distributor of FOTON tractors), SCOA Tractor Division (distributor of New Holland tractors), and National Truck Manufacturers (NTM) (distributors of FOTON tractors) — to compare product suitability, price and their commitment to develop the tractor market. PrOpCom examined their business models and their commitment to after-sales services, but none of these companies believed PrOpCom's concept would work in Nigeria.

Springfield Agro proved a suitable partner on this intervention for the following reasons:

¹³ PrOpCom field assessment in SW, Feb. 2010: 1 hectare by manual labour costs N11,250; 1 hectare by tractor costs N7,500.



- Their willingness to focus on private sales channels, invest in market development activities (such as training mechanics), and commitment to invest in spare parts stocks.
- Capacity to upgrade their business to adopt a new business model.
- SFAL had 36 existing service engineers and two assembling plants in Nigeria.

Next, PrOpCom linked Springfield Agro to TOOAN. TOOAN at the beginning of the intervention was a docile service member organisation with only two state chapters in Ogun and Oyo. PrOpCom identified some members of the association with strong organisational skills to champion a growth initiative. With a vision to reach out to other members around the country, TOOAN was responsive to PrOpCom's proposed changes in growing the private tractor market and agreed to work as the coordinating institution for the pilot.

Bank financing was also a key factor to promote private sector sales. PrOpCom had approached several banks in 2009 to solicit lease-financing including: Oceanic Bank, First Bank, Fidelity Bank and Lotus Capital Limited. They were concerned with the viability of the business model, the security of the asset, the managerial capacity of the beneficiary, and repairs and servicing of the asset. First Bank became interested in the intervention after reviewing PrOpCom's model cash-flow statement and lease risk analysis, and conducting a field visit to engage with the service providers in Ogun state. First Bank then engaged with the Central Bank of Nigeria (CBN) and secured a guarantee for the loan under the Agricultural Credit Guarantee Scheme (ACGS).

Lastly, having an organised group of tractor owners through TOOAN, as opposed to lending to individual buyers, pushed First Bank to finally agree to the pilot. PrOpCom signed an MoU in June 2010 with the three key stakeholders (Springfield Agro, First Bank, TOOAN) under a risk-sharing arrangement for the pilot private purchase of 50 tractors in Oyo, Ogun and Kaduna states. The CBN also agreed to guarantee 75 percent of N1 million of the loan per customer with the same conditions under the ACGS. This was the first pilot of its kind in Nigeria's recent history. The approval of First Bank loans came in batches and the last batch of tractors was delivered to customers in February 2011. PrOpCom collaborated with the bank to monitor the loan repayment to document the viability of the business model.

PrOpCom also supported the development of the tractor service support market actors. In July 2011, the Institute for Agricultural Research and Training (IAR&T), SFAL, TOOAN and PrOpCom shared the cost of training TOOAN's lead operators in Kaduna, Ogun, and Oyo states. The course taught operators about the adverse effects of inappropriate tillage practices on crop production, in order to spur their desire to provide the correct implement services. Springfield and PrOpCom shared the cost of training on the proper use and preventative maintenance of Mahindra tractors. PrOpCom further catalysed Springfield Agro to offer a special training that encouraged mechanics of Mahindra tractors to also become certified spare parts dealers. To improve TOOAN's organisational capacity to better engage and represent its members, a strategic and operational business plan was developed for TOOAN by a PrOpCom consultant.

In April 2010, PrOpCom began production of a promotional video in order to encourage other partners (banks, tractor distributors and tractor operators) to



replicate the model and crowd-in the tractor market system. The 30-minute documentary was featured in March 2011 at a stakeholder event in Lagos, with participants ranging from bank officials to tractor companies, from farmer associations to the press. Audience members agreed that the content depicted the status of the tractor market system; they felt the pilot was a step in the right direction.

In May 2011, Springfield Agro, with the support of Mahindra & Mahindra, invited five bank officials from Oceanic Bank, Intercontinental Bank, Fidelity Bank, Union Bank and First Bank to visit the Mahindra plant in Mumbai, India. In addition, three state chairmen of TOOAN and two PrOpCom members were part of the

delegation. Through this visit, Springfield Agro demonstrated to banks and TOOAN its confidence in the Mahindra product, as well as its commitment to developing the market through supplies of products, spare parts and effective and efficient after-sales services. Springfield Agro Limited invested N6 million on the Mumbai visit.

“This scheme is working and we are committed to continue with the retail sales through the private channel.”

— Manoj Ramakrishnan,
Business Head, Tractor Division,
Springfield Agro Ltd

The delegation in Mumbai had interactions with dealers and assessed the dealership network focusing on efficiency and service profitability. The delegation also visited Mahindra Finance, a subsidiary set up to finance Mahindra tractors to customers to investigate their model. Oceanic Bank and Intercontinental Bank responded very positively to the Mumbai visit. In May 2011, another MoU was signed linking Oceanic Bank, Springfield Agro, and TAK Tractors to finance 150 tractors in northern Nigeria, before extending to other parts of the country. Intercontinental Bank decided to start its own pilot in the southwest, and commenced with the financing of 30 tractors without PrOpCom support.

The Oceanic Bank tractor finance scheme increased the offering and choice to the customers. The customers had to choose between Mahindra and TAK tractors in this scheme. This introduced an interesting element of competition between the vendors in the market. PrOpCom saw evidence that the players were becoming strategic in developing their markets. TAK focused on using media and demonstrations of the benefits of the tractor to win more customers. Springfield Agro increased its presence in Zaria and other parts of Kaduna state. It invested in a service centre in Zaria and developed a strategy to decentralise its stock of service and spare parts to most states in the north. In addition, Springfield Agro increased its staff in the north.



5.1.4 Tractor Grants

PrOpCom Tractor Intervention Grants

| Grant No. | Period of Performance | Title of Grant | Name of Grantee | Value of Grant (N) | Amount Paid (N) |
|--------------------------------------|-----------------------|--|-----------------------|--------------------|-------------------|
| Mudu Fund-13 | Apr 2010 to May 2011 | Tractor Service for SME Farmers | Springfield Agro Ltd | 16,000,000 | 16,000,000 |
| Mudu Fund-14 | June 2010 to Mar 2011 | Improving Tractor Service for SME Farmers in Kaduna, Ogun and Oyo states | First Bank of Nigeria | 37,250,000 | 37,250,000 |
| Total Grant Value Awarded (N) | | | | | 53,250,000 |

Mudu Fund 13

Springfield Agro originally aimed to sell 500 tractors and improve the after-sales services for their tractors. While there were potential commercial gains for Springfield Agro, there were also risks associated with venturing into a new market, and costs to develop the market. A grant of N16 million (£64,000) was approved for a pilot to facilitate the sale of 50 tractors over three months. The actual purchase of the tractors happened within five months, but the implementation of market development activities spanned over two years. The money was used to prove the importance of (1) training the operators and mechanics and (2) providing demand education to the farmers who would purchase the tractor services. For its part Springfield Agro Ltd invested N15.25 million (£61,000) in market development. The partner's costs paid for their tractor promotion and personnel training, support to strengthen after-sales service and provision of a service van. PrOpCom disbursements to Springfield Agro were made against the delivery of key performance indicators. At the end, the vendor realised the need to operate effective after-sales service to customers and to decentralise its service and spare parts sales.

Mudu Fund 14

In order to help protect First Bank of Nigeria against the risk of default for the new 50-tractor lease-finance pilot, PrOpCom provided a cash-backed guarantee for 20 percent of the asset cost (or N745,000 per tractor) for a period of eight months. This equated to a maximum cash grant of N37.25 million (£149,000) for First Bank; the funds were to be set aside and used by the grantee only in the case of non-payment of over three months by any tractor buyer. Given that potential buyers of the new tractors may also be risk averse to taking out the loan, PrOpCom agreed with First Bank that the cash guarantee would, after 8 months of on-time repayment, be handed over to the loan recipient (tractor buyer) to reward faithful repayments.



By the end of September 2011, only one customer in Ogun state defaulted. TOOAN supported the bank in the recovery and reallocation of the tractor to another member willing to take over the repayment of the lease. In this case, the bank recovered the PrOpCom cash backing to reduce its exposure. The remaining beneficiaries have all benefited from the reward for good performance. The cash backing was used to reduce the remaining balance of their loans. The total loan repayment performance at this time was as follows:

Combined Schedules for Southwest and North Tractor Scheme as of 28 September 2011

| Total # of borrowers (Igbogila & Zaria) | Loan Repayment % | Total % of borrowers |
|--|-------------------------|-----------------------------|
| 19 | > 100% | 38% |
| 16 | 91–100% | 32% |
| 11 | 71–90% | 22% |
| 2 | 51–70% | 4% |
| 2 | < 51% | 4% |
| 50 | | 100% |

5.1.5 Tractor Market Achievements

Support-Market Change

The support market changes PrOpCom's tractor intervention sought to achieve were:

- Development and launch of new finance products by banks for tractor purchase
- Increased competition among banks for the tractor market
- Increased supply of tractors to individual buyers, leading to competition between tractor suppliers for market
- Better connections between tractor operators and tillage trainers
- Increased pool of service providers with improved knowledge on how to properly operate and maintain the tractor leading to increased business viability and less breakage
- Increased supply of more timely and reliable tractor services to farmers
- Better coordination of spare parts and maintenance services
- Improved supply of knowledgeable mechanics willing to invest in spare parts replacement facilities
- Wider range of implements on sale to service providers.



Key Market Changes Observed:

- 5 banks showed interest in the market, 3 invested, and 2 created specific new products. Not much competition yet among the banks.
- 4 tractor companies showed interest in private sales, 2 invested and are competing.
- Increased political pressure from federal government to scale back public supply of tractors.
- 50 lease-financed tractors were purchased by service providers in the First Bank pilot scheme in Ogun, Oyo and Kaduna states. Average aggregate loan repayment on those 50 tractors lies at 95% (Oct 2011).
- 125 tractor operators were trained by Springfield Agro to support tractor service and how to properly operate and maintain the tractor, with the aim of increasing their business viability.
- 18 mechanics were trained by Springfield Agro to support tractor repair market and reduce risk to banks of asset breakdown.
- 22 additional lease financed tractors were purchased by service providers in Oceanic (15) and Intercontinental (7) banks' tractor pilot schemes in Ogun, Oyo and Kaduna states.¹⁴
- 35 additional tractor operators were trained by Springfield Agro and TAK Tractors as part of the additional lease finance arrangements.
- 1,050 farmers were sensitised on the extended possibilities of tractor use in 16 locations in Ogun, Oyo and Kaduna states.
- 18 lead operators were trained to improve their tillage practices and use additional implements to increase crop production.
- Two service providers have invested in sales of Mahindra fast moving service parts.
- 10 mechanics have shown willingness to invest in sales of fast moving service parts. This will promote the decentralization of the sales of Mahindra service parts, making them readily available in the rural clusters.
- Springfield Agro committed to invest in importation, promotion and distribution of additional tillage and farm operation implements to increase service offerings to farmers.
- Springfield Agro and TAK tractors increased the warranty on the tractor supplied to the tractor scheme to 2 years, thereby reducing the risks to the banks.
- TOOAN expanded its state chapters to include Adamawa, Bauchi, Kaduna, Kwara, and Taraba states.
- The Central Bank of Nigeria extended the conditions of the Agricultural Credit Guarantee Scheme to cover N1 million of the loan to each service provider that bought a tractor. This limits banks' exposure to about 20% in case of default by service provider.
- The copying banks reviewed their pilots' repayment structures to provide better customer service by reflecting the TSPs' cash flow patterns during the peak and low seasons.

Core-Market Change

The core market changes the tractor intervention sought to achieve were related to increasing the competitiveness of farmers' crop enterprises:

- Increased income of tractor service providers (owners). (This shows the viability of a profitable tractor service business model to serve farmers' enterprises.)
- Increased income of tractor operator (due to profitable business model of owner).

¹⁴ Initially Oceanic Bank had approved 27 tractor loans and Intercontinental Bank had approved 15, but the number of loans actually disbursed in the pilots by 1 Nov. 2011 dropped due to delays as a result of the merger processes between Oceanic Bank and Ekobank, and Intercontinental and Access banks, respectively.



- Increased use of tractor service by farmers to (1) reduce manual labour on farm, and (2) reduce cost of operations.
- Increased land under cultivation during the major and minor seasons by improving the timeliness and reliability of tractor service to stimulate double or multiple cropping possibilities.
- Increased farm productivity (due to efficiency of tractor use vs. manual labour).

Key Market Changes Observed:

- Average land size covered by a tractor per season is 183 ha/peak season in the SW and 496 ha/peak season in Kaduna.
- The average additional land cultivated per farmer in Ogun and Oyo states (peak season only) was 0.04 ha/season for a total of 55 ha/season (1,487 farmers).
- The average additional land cultivated per farmer in Kaduna state in peak season was 0.15 ha/season and 1.68 ha/season in low season for a total of 14,614 ha/season (8,008 farmers).
- Average cost savings per farmer was N2,574/ha/season in Kaduna and N5,712/ha/season in the southwest due to tractor use for land preparation and haulage.
- Operators earned an extra N298,382/year in the SW and N453,610/year in Kaduna.
- 165 farmers now cultivate the minor season in the SW while 852 farmers now cultivate the minor season in Kaduna.
- 125 tractor operators were employed in the tractor service business.

Poverty Reduction

The poverty reduction changes the tractor intervention sought to achieve were:

- New jobs created for labourers and tractor operators.
- Increased net income for farmers and labourers¹⁵.
- Farmers more resilient to climate change due to improved soil permeability.

Tractor Intervention

Impacts

Scale:

- Total farmers reached: 9,495 (direct, Dec. 2011) (southwest 1,487; Kaduna 8,008); expected to reach another 37,516 farmers (indirect, Dec. 2013)
- **Total beneficiaries reached: 47,011**

Additional jobs created:

- Additional jobs created for direct beneficiaries: 2,244 (2,144 farm labourers; 100 operators; Dec. 2011).
- Additional jobs forecasted for indirect beneficiaries: 8,742 (8,342 farm labourers, 400 operators; Dec. 2013).
- **Total jobs created: 10,986**

Net income increase:

- Additional net income generated for direct beneficiaries: N477,878,080 (farm labourers: N385,888,593; farmers: N91,989,487; Dec. 2011).
- Additional net income generated for indirect beneficiaries: N3,733,493,370 (farm labourers: N3,003,157,408; farmers: N730,335,962; Dec. 2013).
- **Total net income increase: N4,689,249,530**



¹⁵ Investments in extra labour hired as a result of additional cultivated land due to tractor use.



5.1.6 Tractor Intervention Sustainability and Risk

The tractor initiative generated significant learning for market actors, which supported the crowding-in of other partners. For example, one other distributor became willing to sell tractors and implements to individual farmers, farmers' groups and service providers. PrOpCom's level of support to the new banks while facilitating their crowding-in was less intense than during the pilot phase with First Bank.

Oceanic Bank and Intercontinental Bank took the lead in developing their banks' respective tractor initiatives, only relying on PrOpCom for advice on what next step to take. Both banks scheduled customers' repayment to coincide with the agriculture season, unlike the First Bank scheme that scheduled equal payment across all months, creating challenges in operators' repayments during the low season. This could either be attributed to their appraisal of the challenges experienced by First Bank, or to the lessons learnt from the interaction with Mahindra Finance and the tractor dealer during the visit to Mumbai.

From the beginning, PrOpCom recognised that TOOAN did not have the organisational capacity to expand beyond its scope, and the programme worked with TOOAN leaders to strengthen the association. It supported the association in more effectively engaging and representing its members. By developing a business plan, TOOAN was better equipped to institutionalise leadership and strategic direction. This was not a core part of PrOpCom's tractor intervention; rather, getting the market actors to work together was first priority, and this support came later.

The risks that could undermine the sustainability of this work are as follows:

| Risk | Probability | Mitigation |
|--|----------------|---|
| Government distortive policy through purchase of tractors and presentation to beneficiaries at discounted values | High | <ul style="list-style-type: none"> Continuous efforts made to build the confidence of customers in the private channel initiative. PrOpCom encouraged and facilitated crowding-in of many vendors interested in developing the market and sales through the private channels. Effective and direct communication to public sector of the benefits of the open market to convince them to seek more productive uses of their funds (e.g., video). |
| Financial institutions' reluctance or inability to scale up | High | <ul style="list-style-type: none"> Vendors were encouraged not to enter into an exclusive agreement with one bank. |
| High cost of spare parts and after-sales service | Medium to High | <ul style="list-style-type: none"> PrOpCom encouraged tractor vendors to review their distribution strategy to eliminate high transaction cost on spare parts. TOOAN taking an active role on behalf of members. PrOpCom encouraged vendors to develop skill of local mechanics around viable clusters. |
| Vendors' inability to finance the stockpiling of tractors to respond to demand | Medium | <ul style="list-style-type: none"> If this is sustainable, the market will respond to demand — no need for PrOpCom action. Competitive interests will compel serious vendors to seek capital and invest. |



INTERVENTION: Threshers Summary

BACKGROUND

The majority of poor farmers manually thresh their rice harvests. The manual process, however, is the first of several steps, through which stones are introduced into local rice. Initial studies showed that farmers are interested in using machines. But very few machinery sellers or importers offer mechanical threshers to the Nigerian market. Where they do, it is mainly to fulfill public sector contracts. These machines, due to corruptions in the political system, get used only by wealthy farmers in exchange for their political patronage. As a consequence of this market failure, poor farmers miss out on the extra profit to be realised from using machines.

STRATEGY

PrOpCom aimed to catalyse change in the threshers market, so that farmers' demand for threshers would be met. PrOpCom sought to do this by influencing agricultural machinery producers and importers to market and sell directly to the end users — the smallholder rice farmers.

KEY INTERVENTION ACTIVITIES

- Influenced local fabricators and importers to market, sell, and distribute threshers to individual buyers through private channels.
- Arranged demonstrations of prototypes to farmers to raise their understanding of the opportunity.
- Introduced MFIs to the potential market; set out the business case for them, and linked them to interested vendors.

KEY MARKET SYSTEM CHANGES

- Increased supply of threshing machines to the market.
- Increased smallholder farmers' awareness of the benefits of mechanical threshers in six states across Nigeria.
- Selected farmers had direct access to the purchase of mechanical threshers marketed through intervention.
- Financial institutions targeting smallholder farmers and rural service providers are developing lease finance products.

KEY CHALLENGES AND RISKS

- Lack of suitable partners able to locally fabricate threshers and willing to market them directly to smallholder farmers.
- Government orders placed with initial local partners distorted their incentive to continue to market to smallholder farmers.
- Demonstrating the benefits of threshers to smallholder farmers to create demand is costly and time-consuming.
- Individual smallholder farmers are reluctant to invest in a small-scale rice thresher, as it lies idle for most of the year.
- Threshing season is short and annual. If missed, the intervention is delayed by one year.

KEY LESSONS LEARNED

- Local fabricators' overreliance on government contracts has hampered innovation in production and market development. Local fabricators also lack the capacity to meet the huge demand for threshers. Importation of threshers is therefore the best solution in Nigeria's current market.
- It is a more viable business opportunity to sell multi-threshers (i.e., threshers of multiple crops, not just rice) rather than rice threshers. They can be sold to entrepreneurial smallholder farmers, who can in turn provide thresher services to neighbouring farmers across the harvesting periods of various crops. This will develop a more efficient and higher-capacity threshing market.
- Farmers will only adopt the technology when they have seen proof of efficiency.
- Importers' business plans must assume the cost of demonstration as part of their marketing strategies, and must provide a clear link to finance for buyers.



5.2 Agricultural Mechanisation: Threshers

5.2.1 Introduction to the Thresher Market

Smallholder farmers in Nigeria's rice producing states manually beat the harvested grain stalks to thresh the rice paddy, and use ambient wind to winnow away the non-grain chaff. A time-consuming and tedious process, farmers typically hire labourers to manually thresh and winnow their harvests. A study conducted in Kano indicated that manual threshing of one hectare of rice paddy requires the effort of 18-20 labourers for two full days.¹⁶

In Kano state, 99 percent of farmers interviewed¹⁷ had never seen a mechanised thresher. Their lack of awareness is not surprising, given that the only threshers available to farmers are those at the public agro-service centres. Threshers are grossly undersupplied by the centres and typically non-operational due to lack of maintenance services. If a thresher were available, it was the large farmers with political influence who accessed the services. Alternatively farmers could buy threshers procured, subsidised and sold through government contracts — but generally these contracts also favoured wealthy farmers with close political ties. Machine importers/vendors and local agro-machinery fabricators have failed to supply the rural market directly due to their overdependence on filling government supply contracts, as well as suppliers' lack of information about and contact with the smallholder farmer market.

The potential market for mechanical threshers in Nigeria is huge: in three leading rice-producing states of Niger, Kaduna and Kano, PrOpCom estimated a potential demand for 10,889 units of mechanical threshers.¹⁸ Sold at a retail value of N100,000 per small thresher, this equals a market value of over N1 billion (£4 million) for those three states alone. While the outright purchase of a thresher may lie beyond the financial means of many smallholder rice farmers (who earn on average only N30-60,000 per year¹⁹), it is, however, affordable to organised groups of farmers or rural businessmen interested in offering threshing services to local farmers. Financial institutions can play a vital role in assisting individual smallholder buyers to finance the purchase of small-scale machines by developing targeted loan products. Currently such financial products are not available nor do banks understand the potential for profit from lending to buyers of threshers.

5.2.2 Thresher Intervention: Pro-Poor Rationale

Using mechanical threshers over manual labour in paddy threshing saves time and money, reduces grain losses, and minimises kernel damage. In labour savings alone, farmers using mechanised threshers can save 80 percent over the hiring of manual labourers for threshing.²⁰ Grain loss using mechanised threshers is calculated at 2 percent compared to 7 percent for manual threshing. And farmers save time: output per day of mechanised threshers is an astonishing 400 percent

¹⁶ *Business Opportunity of Rice Threshing in Kano, Nigeria*. Study commissioned by PrOpCom, March 2009.

¹⁷ PrOpCom market survey, Kano, 2011.

¹⁸ Based on the three states' combined paddy production of 980,040 MT (National Bureau of Statistics, Nigeria, 2007) and a calculated thresher output of 90 MT per season.

¹⁹ Based on PrOpCom surveys, average profit per MT of rice is N14,000. Average farmer profit per year assumes average yield of rice farmers of 2.2 metric tons per hectare and average smallholder plot size of 1-2 hectares.

²⁰ *Business Opportunity of Rice Threshers in Kano, Nigeria*. Study commissioned by PrOpCom, March 2009.



higher than manual labour. As a result, farmers can significantly improve their profits by using mechanical threshers.

5.2.3 Thresher Intervention Partner Summary

PrOpCom began its rice thresher intervention in early 2009 by conducting two studies on the economic feasibility of mechanised thresher use in the southwest and Kano, respectively.²¹ After the study found that thresher use could yield profits for smallholder farmers, PrOpCom placed adverts in two major newspapers looking for local fabricators, leasing companies and financial institutions to express interest in the Mudu Challenge grant. The grant aimed to induce change, innovation and competitiveness in the rice threshers service market.

More than nine applications were received from different companies; no financial institution expressed interest. Applicants were evaluated on the basis of the technology, the capacity to produce the technology, and the strength of the business plan. Shortlisted applicants were invited to the PrOpCom office in Abuja to defend their proposal, after which Nova Technologies Limited, from the South-West, and SHM Engineering Nigeria, from Kano, were selected to partner with PrOpCom. MoUs were signed with both companies to produce 100 units of rice threshers for the intervention pilot.

Consultants were sent to review the companies' progress. After a visit to SHM's factory, the consultants expressed their reservation on SHM's capacity to produce the rice threshers. SHM was asked to stop further work on fabrication of the threshers, leaving Nova Technologies as the only fabricator remaining in the intervention. By October 2009 Nova had fabricated its first prototype.

At the start of the 2010 rainy season, Nova Technologies had only fifteen threshers fabricated to different states of completion. As Nova had also taken orders from government institutions, which had paid up to 70 percent upfront, this affected the managing director's desire to produce the 100 units for PrOpCom. Nova's managing director at this point stated his refusal to batch-produce machines in advance of payments, because it would tie down his working capital.

To help Nova overcome the shortage of working capital PrOpCom linked the company to a venture capitalist firm called Alitheia Capital to help redesign Nova's business model. Furthermore, an agreement was signed with Alitheia capital in July 2010 to help in financing and managing the company's transition from a workshop to a full-blown factory.

By September 2010, a total of 25 threshers had been fabricated by Nova but none had been sold, at which point the managing director decided not to produce any more threshers for fear of fabricating equipment he was unsure of selling. PrOpCom believed that if Nova could see the potential in the end user market, it might convince the organisation to adapt its strategy and also complete work on the 100 units of the machines in its factory. The only way Nova would be convinced was through demonstrations to farmers and other potential users.

Due to Nova's slow pace of production during the rainy rice-growing season and PrOpCom's desire not to miss the next rice harvest season, it was agreed that

²¹ RBS Consulting Ltd., Ag Economics Study on Rice Threshing in SW; Optimum Agricultural Consultants, Business Opportunity for Threshing in Kano.



Nova should begin to focus on marketing. PrOpCom and Nova then organised thresher field promotions to generate sales. In total, ten demonstrations were conducted in six states (Adamawa, Benue, Ekiti, Kano, Ogun and Nasarawa) for 162 rice farmers between June and October 2010. PrOpCom furthermore facilitated a linkage between Nova and Olam Rice Mill to sell threshers to rice farmers under the Olam Nigeria out-growers scheme.

After the threshers were demonstrated in Adamawa, a plan was put in place for Nova to work with Standard Microfinance Bank (SMFB) in Yola to provide smallholder farmers with the access to capital to purchase the machines. The bank and Nova would also provide information on how to buy as cooperative groups. By the end of September 2010, Nova had received 92 orders, but the bulk of these (62) came from the Nasarawa state government, while only 30 came from individual farmers in Adamawa state.

The orders from Nasarawa state government once again distorted Nova's incentive to sell to individual farmer groups. Nova didn't deliver the 30 orders placed by smallholder farmers in Adamawa state, but did deliver 25 units out of the order for 62 units placed by Nasarawa state government. PrOpCom's later assessment of the Nasarawa state purchases showed that farmers received the government subsidised machines long after the harvest period for rice had passed and as such were not able to put the threshers into use.

At this point, Nova concluded that reaching out to farmers through nationwide demos and road shows was an inefficient use of resources and time. Nova did not fulfil its contractual obligation with PrOpCom to sell 100 mini threshers to farmers and explicitly stated its plan to discontinue with the business model. The partnership with Nova was not officially terminated, but allowed to lapse.

The demonstrations carried out across the six states elicited great interest among the farmers who attended. PrOpCom then conducted a market study in Kano to understand the willingness of rice farmers to adopt mechanised grain threshing, their willingness to pay for mechanised threshing services and to determine the thresher capacity that would suit their farm operations. The aim was to reinforce the business case while PrOpCom searched for other potential investors. Most farmers surveyed said they would like to own a unit for their own use and also for providing threshing services to other farmers but the cost of the machine has made this challenging for them.

PrOpCom then decided to change its approach to the market by exploring import from other countries. A survey of the small-scale agro-machinery market was conducted to understand the supplier landscape, their distribution networks, their supply sources, and their interest in adding rice threshers to their stocks. The study identified Simba Group, Golden Star Mill and Springfield Agro as the key players in the small-scale agricultural machines market, each having extensive distribution networks spanning more than five states in northern Nigeria. None of them were currently importing threshers.



PrOpCom wrote a business case on the thresher market and sent it to the three agro-machinery importers as well as three microfinance banks. Golden Star Mill signed an MoU with PrOpCom for an initial pilot which involved the importation of 10 units of mechanised threshers into Nigeria by mid-September 2011. PrOpCom then facilitated the company's linkage to the Kaduna state Rice Farmers Association of Nigeria (RIFAN) on thresher demonstration and marketing. PrOpCom also supported Golden Star's linkage to Microcred Microfinance bank to promote a lease finance product for smallholders' purchase of the threshers. By the end of PrOpCom, both Simba group and Springfield Agro had signified their interest to import rice threshers into the market, but had yet to follow up through a contractual agreement.

"I'm an engineer—what I know is how to design machines. I don't worry much about marketing...if I want to market, I market to government agencies and other institutions, but I understand this might not be a sustainable way to market... Selling threshers directly to farmers is the PrOpCom way of marketing. I can't produce machines and wait for farmers to come and buy...that's tying down my working capital... Government gives me at least 60% upfront payment, which saves me the stress of searching for working capital."

— Engineer Bankole,
Managing Director, Nova Technologies

"The business case looks good, but I don't want to be too optimistic...I want to test the market by importing 10 units."

— Ilyasu Nazifi,
General Manager, Golden Star Mills

5.2.4 Thresher Intervention Grants

PrOpCom Thresher Intervention Grants

| Grant No. | Period of Performance | Title of Grant | Name of Grantee | Value of Grant (N) | Amount Paid (N) |
|--------------------------------------|-----------------------|-------------------------------------|-------------------|--------------------|------------------|
| Mudu Fund-06 | Apr 2009 – Oct 2009 | Southwest Commodity Business Group | RBS | 2,000,000 | 200,000 |
| Mudu Fund-08 | Aug 2009 – Nov 2009 | Low Cost Rice Threshers, Kano State | SHM Engineers | 690,305 | 690,305 |
| Mudu Fund-11 | Oct 2009 – Dec 2009 | Low Cost Rice Threshers | Nova Technologies | 690,305 | 690,305 |
| Mudu Fund-12 | Jan 2010 – Nov 2010 | Low Cost Rice Threshers | Nova Technologies | 3,814,600 | 1,731,680 |
| Total Grant Value Awarded (N) | | | | | 3,312,290 |

Mudu Fund 06

PrOpCom's support to the Southwest Commodity Business Group was aimed at fostering the group's ability to respond innovatively to business opportunities in the market, which would in turn lead to economic growth for rice farmers in the region. The aim of the business group was to help its members to establish new business relationships among themselves, and thereby develop a sustainable agro-services market system for southwest farmers. PrOpCom paid RBS Consulting to facilitate



the group, but the efforts proved ineffective, because the group was looking for handouts. This grant was terminated.

Mudu Fund 08

A grant was awarded to SHM Engineering to develop and test a prototype for a locally fabricated rice thresher. Upon review of the partner's production capacity and lack of progress against deliverables, the grant was terminated due to unsatisfactory performance. The cash advance provided through the grant was recovered through the delivery of seven threshers by the grantee.

Mudu Fund 11

A grant was also awarded to Nova Technologies for prototype development. In the course of the prototype design and subsequent equipment modification, Nova succeeded in (a) developing an original fabricated mini-thresher, (b) modifying the thresher based on comments by observers during testing, (c) further re-modifying the thresher to improve the mobility and capacity to thresh panicles and grains from straw, (d) conducting four demonstrations and tests at WARDA, OGADEP, and (e) designing and printing a product brochure for demand education.

Mudu Fund 12

PrOpCom engaged an external technical consultant to review the prototype and his comments were incorporated into a re-modified prototype. The Mudu Fund-12 grant was then concluded to manufacture the model. The grant was meant to cover the following deliverables: production of 100 units of threshers, demonstration of threshers, market promotion and sales incentives for farmers. The grant was designed such that roughly 40 percent of the grant would cover production costs and 60 percent would cover market development.

Nova Technologies failed to meet the criterion of producing 100 threshers. Furthermore, the only verifiable sale of threshers was 65 units to Nasarawa state government, which negated the condition of selling to targeted rice farmers. Other reasons for grant termination included non-compliance with monthly reporting and expense submission requirements. PrOpCom staff had to travel to Ibadan to meet with Nova, which still did not yield proper reports or invoicing. The grant was then terminated.

5.2.5 Thresher Intervention Achievements

Due to the initial challenges with the partners, the seasonal nature of the rice threshing market, and the final timing of the multi-crop thresher partnership, the thresher intervention did not achieve the anticipated changes by the time this report was written.

Support-Market Change

The aim of this intervention was to guarantee the supply of threshers in the market and create access to mechanised threshers for smallholder farmers. This would be done through the following support market changes:

- Increased supply of threshers marketed and sold directly to farmers



- Included provision of market sensitization services to farmers on the benefits of thresher use (i.e., less grain loss and more cost/time savings).
- Development and launch of new finance products by banks for thresher purchase
- Provision of thresher services by entrepreneurs in the support market

Key Market Changes Observed:

- Ten multi-threshers have been ordered for import for a pilot sale to smallholder farmers.

Core-Market Change

As a result of the support market changes, the changes PrOpCom sought to achieve in the core market included:

- Uptake of bank products among farmers / entrepreneurs to pay for threshers
- Increased purchase of mechanised threshers among farmers
- Increased productivity of farmers (measured as cost savings and reduced grain loss)

Key Market Changes Observed:

- Five smallholder farmers bought the rice threshers in Nasarawa and Benue states.

Poverty Reduction

As a result of mechanised threshers' usage, farmers are anticipated to increase their income from savings made from manual labour and wastages associated with manual threshing. From the current intervention, the aim is to reach 2,182 farmers through the sale of 10 machines by December 2011. The direct income increase anticipated is N12,485,258 (or N5,722 per farmer), and 20 jobs will be created (2 operators per machine).



6. AGRICULTURAL POLICY

The agricultural policy intervention focused on the rules of the market system, i.e., developing a business-enabling environment, such that PrOpCom's other support market interventions had better chances of success. While PrOpCom's approach to policy work remained consistent, the strategies, activities and results differed heavily by intervention due to the unique policy reform aims. For the purposes of this document, PrOpCom's policy interventions have been organised along state and federal lines.

6.1 Introduction to Policy Environment

Agriculture is a major sector of the Nigerian economy, sustaining 86 percent of rural households and contributing 42 percent of the national GDP. However, two-thirds of Nigeria's 81 million poor people are rural farmers²² who practice subsistence farming. Their production methods are rudimentary, their productivity low, and post-harvest losses high. As a result, they remain trapped in the vicious cycle of poverty: low output, low income, low savings and low investment.

Business investment in agriculture is a risky venture. Producers and other entrepreneurs in the commodity value chains face several constraints such as limited access to agricultural input and output markets, information services, efficiency-improving technologies, and agricultural credit, as well as a poor infrastructure of roads and electricity. This poor business-enabling environment is due largely to lack of clear and consistent government policy processes to support entrepreneurs' investments.

In addition, the agriculture sector is characterised by limited communication and collaboration among stakeholders. Private sector associations lack the organisational capacity to provide effective member services, and the representative capacity to promote effective public-private dialogue. The policy dialogue that does take place is private, not open, and as such is open to corruption. Policymakers remain unaware of the broad business opportunities and constraints. Executive decisions and laws are passed based on the opinions of academicians and the influence of politically connected patrons. Government is not accountable to the business community in any open, fair way.

When stakeholders have the organised capacity to engage government and demand representation, transparency, and accountability in policy formulation and implementation, more fair and lasting policies can be formulated that extend beyond the decrees and pet projects of individual politicians. A more stable business environment leads to increased agricultural investment, which in turn leads to jobs and increased income for Nigeria's scores of poor farmers. This is a huge political and economic gain. People can raise themselves from poverty quickly and sustainably through working markets, and governments have a vital role to play leading the process of market reforms.

6.2 PrOpCom's Approach to Facilitating Policy Reform

PrOpCom's agriculture policy interventions intended to address the above constraints to investment by influencing policy in selected states and to a modest extent at the national level. By working with government and the private sector to strengthen stakeholder

²² National Bureau of Statistics, 2005.



networks, improve dialogue, and increase private sector participation in the policy-making process, better policies could be written that would improve the business environment through dialogue, transparency and long-term accountability.

PrOpCom's approach to policy interventions followed four basic principles:

- *Building institutions:* Policies are not produced by people but by institutions. PrOpCom recognised the need to develop strong institutions in order for appropriate policies to be developed. Three types of institutions are usually needed at the beginning: those that enable collaboration of civil servants, those that foster a greater sense of trust among businesses and help them to elicit a common view, and those that allow the public and private sectors to hear each other. PrOpCom helped to build these institutions, encouraged leaders to step forward from the start, and supported ownership and participation by those affected by the reform process.
- *Evidence-based influencing:* While policy and politics are rightfully connected at the hip, causing personal opinion, vested interests, preference, and power to affect policy, PrOpCom's approach relied on the collection and presentation of reliable evidence to influence policy-making.
- *Public-private dialogue:* When issues revealed through evidence are incorporated into a participatory approach inclusive of all market stakeholders (who are organised and capable due to institution building), there are several outcomes: a more tangible focus on what needs to change; a link between policy change and expected impact on the firm or farm (that can be witnessed by involved participants); known – not 'faceless' – public counterparts; greater incentives for both parties to collaborate (accountability increases at state-level); and improved ability to monitor 'follow-up' (execution of 'physical' change) through direct relationships and proximity.
- *Sectoral approach to policy:* A large feature of PrOpCom's engagement has concerned itself with the definition of long-term roles and responsibilities between public and private players within a sector; particularly with respect to government funding having the potential for better, or more strategic, deployment when focused on specific sectors. This helps remove market distortions of short-lived government projects.

PrOpCom has applied its approach to policy reform by focusing on four key areas. At the state level, the programme contributed to (1) formulating rice sector policies in Kano and Ogun states and (2) reforming fertiliser policy in Adamawa state. At the federal level PrOpCom provided (3) support to the NESG Rice Network and (4) facilitation of national agricultural policy dialogues. The policy work provides crosscutting support for PrOpCom's other intervention areas, such as rice and fertiliser markets. This is a deliberate strategy to ensure that the overall impact from the programme's work is sustainable and institutionalised.

6.3 Intervention Summaries

See the following pages for summaries of PrOpCom's policy interventions, which have been organised along state and federal lines.



INTERVENTION: State-Level Policy Summary

BACKGROUND

Changes in state-level political decisions and budgets can produce comparatively direct impacts over federal level policy, as the state politicians handle implementation decisions, and can be held more easily accountable. For this reason, PrOpCom engaged state-level politicians on vital topics in order to directly influence the programme's work in other sectors, namely rice and fertiliser.

Rice: The quality of the local rice sector in Kano and Ogun states was poor, and had difficulty competing with imports. However, Kano and Ogun state governments lacked clear policies on how to grow the sector in their respective states. Against this backdrop, the state governments decided to develop a more strategically planned rice policy to grow the sector.

Fertiliser: Government's stated aim is to supply poor farmers' demand for fertiliser by procuring and distributing subsidised fertiliser to rural areas. However, the process is corrupted; middlemen capture these subsidies and poor farmers pay market prices. The Adamawa state governor, unaware of this situation, requested evidence to see the extent to which this was happening.

STRATEGY

PrOpCom's work in Kano, Ogun and Adamawa states aimed to help state political leaders develop changes in their policy practices that would result in more sustainable impacts for farmers and businesses.

In Kano and Ogun, PrOpCom aimed to facilitate the development of pro-poor and market-led rice policies for increased economic growth. In Adamawa, PrOpCom sought to facilitate the use of evidence- and dialogue-based regulatory reforms that would improve the accessibility of affordable, high-quality fertiliser to poor farmers.

KEY INTERVENTION ACTIVITIES

- Established credibility and relationships with political and business leaders.
- Conducted surveys to establish reliable baseline of data.
- Engaged policy experts to (1) facilitate dialogue among stakeholders and government actors, (2) harmonise viewpoints, and (3) design, draft, and validate policies.

KEY MARKET SYSTEM CHANGES

- Improved policy-making in significant states and sharing of policies and reforms across states.
- More active role by policy advisory facility; enhanced capacity of stakeholders in participatory policy-making process that improves government accountability.
- Increased public investment in policy-dialogue process.
- Commodity-based policies served as a model for other agricultural policy areas. Funds were allocated by states.
- Improved recognition of the importance of evidence-based policy decisions led to more transparency and accountability over state's distribution of subsidised fertiliser.
- Evidence presented to Adamawa state has helped inform a key data for federal-level fertiliser strategy.

KEY CHALLENGES AND RISKS

- States' policy development and implementation were slow due to government bureaucracy and political transitions, as well as civil servants' lack of appreciation of the role of policy.
- Frequent changes of top ministry civil servants delay progress.
- Weak capacity of business and advocacy groups to mount pressure on government.
- Initial resentment by government officials to embrace reforms. The use of fertiliser as a political campaign commodity makes it difficult for the government to withdraw from subsidy.

KEY LESSONS LEARNED

- Policy-making requires patience, but change can happen.
- A wide gap exists between a policy document and its implementation. Political elections divert government attention from the work; local advocacy groups play a key role in ensuring the implementation takes place.
- Selecting a motivated policy reform champion and an experienced and respected facilitator are critical to the successful policy-making process.
- Allowing state ministries to drive the policy process allowed them to have ownership of the change, while inclusion of key stakeholders enhanced credibility of the policy process. Both have enabled sustainability in policy development processes.
- PrOpCom facilitators found a dearth of data held by public officials. The credibility of the data helps influence sensitive policy issues and sway political leaders.



INTERVENTION: Federal-Level Policy Summary

BACKGROUND

Nigeria's federal-level agricultural policy frameworks have been characterised by inconsistencies (e.g., import regulations that incentivise smuggling), lack of involvement of the private sector, and incomplete implementation. Successive waves of special initiatives have benefitted few farmers. This has resulted in a weakened domestic agricultural sector disadvantaged by low private investment, poor infrastructural support, and unclear strategic direction.

STRATEGY

PrOpCom saw the unexpected opportunity to escalate its policy work from the state level to the national level. This would broaden and systematise the impact, creating a broader institutionalisation of its approach to policy reform. To do this, PrOpCom worked with national platforms to promote consistent, system-wide change in agricultural policy and policy-making processes.

First, the Nigerian Economic Summit Group (NESG) is a private-sector-led advocacy group that seeks to broadly influence government policy in favor of public support to private sector growth. PrOpCom worked with the NESG to develop a specific rice network to focus the group's advocacy on rice sector growth issues.

Second, PrOpCom facilitated policy summits for top-level agricultural stakeholders from both the public and private sectors to dialogue and share evidence-based lessons and experiences.

KEY INTERVENTION ACTIVITIES

- Facilitated the formation the national economic summit group (NESG) rice network to promote public–private policy dialogue and strengthen group members' demands for policy reforms in the rice sector.
- Facilitated peer learning and encouraged adaptation of evidence-based best practices in agricultural policy reforms through high-level national policy summits.

KEY MARKET SYSTEM CHANGES

- The establishment of the NESG rice network has encouraged closer interactions between the NESG and government on rice-related issues and this has boosted the advocacy capacity of private sector stakeholders.
- The agricultural policy summits had tremendous impact on policy thinking in several states. Many states were challenged by the progress made in other states and resolved to initiate similar efforts in their own states. This will lead to possible crowding-in of policy development through peer learning and knowledge sharing.
- The culture of policymakers has improved, and new, better norms have been established as examples.

KEY CHALLENGES AND RISKS

- Lack of coordination of public-private dialogue (PPD)/advocacy institutions hinders the establishment of regular meetings and a sustainable funding mechanism.
- Slow pace of trickle-down to actual implementation.
- Change requires giving up established patterns of behaviour and incentive systems, and this takes time and patience.

KEY LESSONS LEARNED

- States' decisions to develop agricultural and/or commodity-specific policies is an indication of the success of PrOpCom's approach to policy development in Nigeria.
- Commodity-based networks are a viable PPD model in Nigeria, but they need to be well organised.
- Policy reform is more sustainable if it is demand-driven.
- Agriculture policies require legislative support to guarantee consistency of funding across political administrations.



6.4 Constraints In State and Federal Policy Environments

Kano and Ogun States' Rice Policies

Kano and Ogun states currently rank among the top eight states of Nigeria for rice production. Kano has a large market for rice due to its population density and its position as the commercial and industrial centre of northern Nigeria. Ogun state has a strong comparative advantage in rice production due to its human capital and land resources, as well as its proximity to the huge Lagos market. Despite the states' respective potential, yields of rice are low (about 1.2 tons/ha as opposed to the ideal 3-5 tons/ha), due to unavailability of inputs, lack of knowledge on improved farming practices, and outdated machinery. In Kano, arable land for increasing rice cultivation is scarce; this can be remedied by providing irrigation through the rehabilitation of existing dams. In Ogun, on the other hand, land clearing is a major challenge due to the thick vegetation cover of the area. Lastly, the poor quality of local rice processed in Kano and Ogun was unable to profitably compete with imported rice.

Kano and Ogun state governments lacked clear policies on how to grow the rice sectors in their respective states. Against this backdrop, the states' governments decided to develop more detailed, systematically planned rice policy strategies that would support farmers to produce more rice. At first, they did not consider private sector interest and investment in the rice sector. Furthermore, the states had traditionally employed a top-down approach to political decision-making: government officials would make political decisions with little participation from those affected by the decisions, with scant research to inform choices, and little communication about the resulting 'policy'.

Fertiliser Policy Reform in Adamawa State

Most fertiliser in Nigeria is imported and distributed (wholesale level) by companies under contract to government; retail-level distribution is unprofessional and done partly through local government offices, and partly by local seasonal retailers. The government's stated aim is to help poor farmers achieve access to affordable fertiliser by distributing at subsidised rates. This is intended to supply a demand left unmet by the private sector. However, the process is politicised and corrupt; subsidies are captured by unintended beneficiaries instead of assisting poor farmers with the cost of production; and government supply is usually late and insufficient to meet demand. At the state level, publicly procured fertiliser is often supplied in exchange for farmers' votes. With such a background, a policy and regulatory reform that would ensure better availability of fertiliser to farmers was required.

NESG Rice Network

Nigeria's federal-level rice policy framework has been characterised by inconsistencies, lack of involvement of the private sector, and incomplete implementation. Policy decision-making has varied highly with decrees ranging from outright bans on imports to the imposition of varying levels of import tariffs with occasional special exemptions. These changes have encouraged large-scale smuggling over porous land borders. At the farm level, successive waves of special initiatives have benefitted few farmers.

The public sector has remained largely unaware of the needs of private business to operate successfully. This has resulted in a weakened domestic rice sector characterised by low private investment and poor infrastructural support, and a weak



sense of strategic direction. More consistent dialogue across a broader base of rice sector actors was required in order to reduce the pendulum swings of political decisions in favour of a selected few rice sector actors.

National Agricultural Policy Summits

One of the major challenges facing agricultural development in Nigeria is the inability of governments to initiate and sustain policy reforms that can lead to functional markets for the benefits of poor people. Policymakers lack an understanding of which mandates to prescribe that will support markets, as well as how to go about the policy-making process. For example, at the federal level tractor and fertiliser subsidies discourage private sector investment. At the state-level, over 90 percent of states lack documented policy frameworks to guide agricultural development. It was therefore necessary to bring together top-level agricultural stakeholders from both the public and private sectors to share information, lessons and best-practice experiences on policy development.

6.5 Policy Intervention Partner Summaries

6.5.1 State-level Partners

Kano and Ogun States

Kano and Ogun state governments lacked clear policies on how to grow the rice sectors in their respective states, and political decision-making processes were ill-informed and lacked transparency. In June 2008, an opportunity arose to improve this situation, when both state governments approached PrOpCom at different occasions for technical assistance on developing their rice policies. The first step was to send senior and trusted Nigerian policy consultants to talk with top government officials of each state. This was a deliberately indirect approach, as PrOpCom did not want to appear to be involved in politics. In Kano, PrOpCom selected a partner, the Country Policy Centre, to act as a facilitator. The director of the centre was a senior Nigerian academic and policymaker, a man well known and respected by the senior officials of the Kano state government. In Ogun state, PrOpCom engaged the services of Professor Adebayo Aromolaran of the University of Agriculture, Abeokuta, to provide technical assistance to the team from the state Ministry of Agricultural and Natural Resources (MANR). Initial interactions between the consultants and the ministries of agriculture indicated low ministry staff capacity to develop policies for the agriculture sector.

Once the consultants had established the confidence and trust of local politicians, they were then able to push toward a market-led solution. The consultants' role in both states was to help facilitate the iterative process, not to provide an expert opinion on the policy content. Their work included helping the states' teams to interview stakeholders, collate the data that would inform the policy content, and facilitate the final drafting process. PrOpCom encouraged the rice policy committees to stay engaged so that a political compromise could be forged. In addition, PrOpCom provided technical assistance to facilitate key meetings. When appropriate, key stakeholders such as state chapters of the Rice Farmer's Association of Nigeria (RIFAN), financial institutions, and other business groups with interests in the rice sub-sector were involved (e.g., the Kano Rice Business Group).

PrOpCom discovered that the policy-making process can take a longer time than envisaged by the state governments. In Kano, the state government and DFID first



began discussing a rice policy in late 2007. The initial aim was to complete the process by the end of 2008, so that the 2009 rice planting season could benefit from the policy's new mandates. However, delays from the state government meant that the process was only validated in November 2009 and it took the state executive council another eight months to approve the document. In Ogun state, the participatory drafting of the rice policy commenced in February 2009. The draft was validated in a workshop in October 2009. Finally, the state governor approved the policy in September 2010. Changes in office also caused delays. In Ogun state, the PrOpCom worked with a total of four permanent secretaries from the MANR over the course of three years.

Adamawa State

In an opportune meeting with the governor of Adamawa state in December 2009, PrOpCom proposed a quick survey to assess how effective the government's current fertiliser distribution system was with the offer to assist with policy options if needed. The survey revealed that:

The 2009 Survey Revealed That:

- On average, farmers were only able to obtain 30 percent of the 700kg they required.
- 82 percent of the farmers sourced their fertiliser directly from the open market.
- 13 percent got the subsidised fertiliser with over 50% of them paying between N2,500-N4,000 instead of the 'official' subsidised price of N2,000.
- The estimated subsidy appropriated by unintended beneficiaries was N2.25 billion, (nearly £10 million).

These findings were presented to the governor, his senior team, and businesses at a forum in February 2010. The state government organised the meeting, while PrOpCom hired a policy expert and funded the survey. The results met with initial resentment from some government officials due to the poor results. Later, government accepted PrOpCom's assessment report due to the credibility of the survey process.

In response to the findings, the state government issued a communiqué from the meeting to implement immediate policy reforms for the 2010 farming season. Here the aim was to ensure that fertiliser reached more target beneficiaries by broadening the distribution channels to include: farmers registered with the 21 Farming Skills Acquisition Centres, the Sasakawa Global 2000 project, and Adamawa Agricultural Development and Investment Ltd. (AADIL).

Another Assessment Was Conducted in 2010, which Revealed These Results:

- 35 percent of farmers' total demand was met by both private and public supplies (compared to 30 percent in 2008/2009).
- 57 percent got fertiliser from open market (compared to 82%).
- 42 percent of farmers got the subsidised fertiliser in 2010 (compared to 13 percent).
- Lack of availability and late delivery of subsidised fertiliser remained the major constraints to accessing fertiliser.



After these second set of results were presented to the state leaders in June 2011, the government then decided to engage with private companies in a business meeting, and signed an MOU for increased private sector supply. As a result of the MoU, the private sector (including Notore, PrOpCom's fertiliser intervention partner) aimed to improve its own distribution in the state. A follow-on assessment conducted in the 2011 farming season revealed that the percentage of farmers having access to subsidised fertiliser had increased even further to 47%.

6.5.2 Federal-Level Partners

NESG Rice Network

As part of the process to address the systemic failures, in late 2006 PrOpCom signed an MoU with the Nigerian Economic Summit Group (NESG) to facilitate and support collaboration between both parties on research, advocacy, communication and capacity building activities. NESG is a private-sector-led advocacy group that seeks to broadly influence government policy to promote private-sector growth.

PrOpcom worked with NESG's Agriculture and Food Security Policy Commission to establish a Rice Network. The aim of the network was to create a platform upon which businesses could form a common view on strategic issues relating to the rice sector; to share that view with government; and to understand, discuss and advocate for policy reforms that would address the market failures in Nigeria's rice economy. The Minister of Agriculture launched the network in July 2008, demonstrating the government's support of the initiative.

Members of the Rice Network came from both the public and private sectors: producers, processors, importers, marketers of rice, agro-input companies, banks, NGOs, and key public sector institutions. From 2008-2009, the Rice Network made various presentations to key rice sector stakeholders, partnered with ECOWAS, NEPAD, JICA to draft a national rice development strategy, and conducted research on rice statistics and demand for rice. The group also paid advocacy visits to the House of Representatives' Agriculture Committee and the current Federal Minister of Agriculture, where group members presented policy recommendations based on the network's research evidence.

Agricultural Policy Summit Partners

Based on PrOpCom's successful facilitation of policy reforms in Kano, Ogun and Adamawa states, the programme then decided to organise a series of summits whereby the senior officials of these states could share their lessons and experiences with their peers from other states. By expanding its work to as many states as possible, PrOpCom aimed to encourage 'crowding-in' of other states to the policy reform process.

PrOpCom engaged a policy expert to facilitate the National Agricultural Policy Dialogue in August 2010 where political peers from various state ministries of agriculture shared their policy reform lessons. Permanent secretaries were invited as participants due to their positions as the administrative heads of their ministries. Directors of planning also attended due to their positions as the desk officers responsible for policy formulation in their respective ministries. Since then, five states have copied the policy processes presented.



PrOpCom next commissioned a study to assess the landscape of state-level agricultural policies in October 2010, which revealed that very few states had developed commodity policies. The report was validated by participating states and some stakeholders sponsored a memo to the National Council on Agriculture (NCA). In March 2011, the NCA recommended all states to draft agricultural policies within one year.

PrOpCom engaged a policy expert to facilitate the National Fertiliser Policy Roundtable in October 2010. The event was attended by the key fertiliser supplier companies, federal government, Fertiliser Producers and Suppliers Association of Nigeria (FEPSAN) and IFDC. It led to the issuance of a signed communiqué for government to withdraw from fertiliser procurement and distribution at the federal level.

6.5.3 Lessons on Facilitating Policy Intervention Partners

Eye on the Goal. PrOpCom kept its eye on the goal: reducing poverty. PrOpCom ensured that intermediate goals, motivated by short-term and individual interests, were not allowed to divert the policy reform process. Gaining leaders' spoken commitment to this goal was important to ensuring consensus.

Find the right champions. Top-level government officials particularly from the ministries of agriculture and other related ministries, agencies and parastatals played pivotal roles in PrOpCom's policy reform interventions. PrOpCom began by identifying and building relationships with key policy champions who may be from within or outside the host ministry. Experience showed that public officials with strong private sector backgrounds are quicker to understand and accept market-led policy reforms. Once enough trust was built and they were convinced about the proposed market-led reforms, the facilitation of the reform process became easy.

“Before the survey was conducted, each member of the committee was working, and we felt we were doing the right thing. But when the report of the survey came out, we felt bad. Why? We thought that fertiliser was reaching the farmers, but it was not. As soon as we saw this report in 2010 we took proactive measures. The lesson is that at times you presume you are doing the right thing, but a wake-up call can actually make you immediately bring about a difference in a positive direction. This is what government at various levels should do.”

— Dr. Louis S. Mandama,
Permanent Secretary,
Ministry of Agriculture, Adamawa state

Make it safe and easy. Politicians and senior government officials usually had very little experience with the process of making policy. They faced two challenges at the same time: no sense of direction, and fear of losing control of the process. From the beginning, PrOpCom sought to understand the political context of the policy issue, showed respect to senior government officials such as commissioners, permanent secretaries, and directors; recognising their roles, responsibilities, and accountabilities. PrOpCom assisted them to envision an outcome, and devise a strategy to achieve it. PrOpCom provided credible Nigerian expertise and support to accompany them during the process. Where necessary, PrOpCom offered ideas, space to reflect, and occasions to work together. PrOpCom sought to strike an appropriate balance between progress and patience. PrOpCom's facilitation support was more of an art than logic or intellect.

Ensure sustainability through equity of participation. To ensure the sustainability of reforms, PrOpCom worked with staff of the host ministries throughout the policy



process. It was observed that ministry staff tend to dominate discussions during stakeholders meetings, but facilitators insisted on fair representation in terms of views and number. PrOpCom ensured that government officials were not paid any allowance apart from their regular salaries. Rather, they were encouraged to regard their inputs as official contributions to the development of the agriculture sector. The Kano state government demonstrated ownership of the policy process (and hence a greater likelihood for sustainability), e.g., by paying accommodation bills for PrOpCom's hired facilitator.

Reward progress. Policy-making is rarely a swift process; it was hard to maintain commitment all the way to the end. PrOpCom provided verbal encouragement and appreciation at every step. PrOpCom strove to regularly attend meetings (formal and informal), and provide senior consultants to reassure participants. PrOpCom also offered opportunities for public validation and appreciation.

Invest in capacity building. PrOpCom discovered that the ministry staff had low levels of technical capacity with regards to policy development. The staffs were eager to learn from the facilitator and this strengthened their capacity to apply their new expertise to developing new policies, as was the case in Ogun state.

On finding the right private sector partners. Private sector partners included the NESG and associations such as RIFAN, AFAN, and FEPSAN. Only groups with proven business interests were carefully selected for engagement. Private sector stakeholders were involved from the initial phase of the reform process and this helped them to fully participate and understand the process. In some cases, they transformed into advocacy groups that championed policy implementation. PrOpCom's experience in working with private business partners showed that most were eager to contribute to policy reforms, but lacked the organisational, leadership and financial capacity. This reduced their ability to effectively advocate for change.

On finding the right consultants. PrOpCom worked with local policy consultants from both academia and the private sector. Only a few of them clearly understood the emerging M4P concept. The main selection criteria therefore included a thorough understanding of the sensitive nature of policy-making in Nigeria as well as the ability to command respect by stakeholders.

6.6 Policy Intervention Grants

PrOpCom Policy Grants

| Grant No. | Period of Performance | Title of Grant | Name of Grantee | Value of Grant (N) | Amount Paid (N) |
|--------------------------------------|-----------------------|---|-----------------|--------------------|-------------------|
| SIF-03 | June 2008 to Dec 2008 | Promotion of Policy Dialogue among Stakeholders | COPOC | 18,772,000 | 18,772,000 |
| SIF-04 | Feb 2009 to July 2009 | SIF - 04 Agreement | COPOC | 16,272,000 | 16,272,000 |
| Mudu Fund-09 | Sept 2009 to Feb 2010 | SIF - 09 Agreement | COPOC | 12,261,000 | 12,259,500 |
| Total Grant Value Awarded (N) | | | | | 47,303,500 |



SIF 03, SIF 04, and Mudu Fund 09: Country Policy Centre

The aim of CoPoC was to actively influence the content and direction of social and economic policy based upon knowledge, evidence, advocacy and stakeholder dialogue. CoPoC sought to do this through high level capacity building in support of issue/fact-based policy formulation, and by undertaking policy research to serve as evidence for policy dialogue. CoPoC's policy activities were expected to directly benefit both the government and the private sector.

PrOpCom decided to support the start-up and operational costs for CoPoC for a period of six months (SIF 03). This funding was aimed at facilitating CoPoC's establishment, so that it could obtain new clients, contracts, and become financially self-sufficient in a short amount of time. PrOpCom agreed to continue its funding of CoPoC activities for another six months (SIF 04), and again for Mudu Grant 09, due to successful performance along each respective grant's previous output indicators. The complete outputs specified under the three grants were:

- Setting up and running of CoPoC
- Development of appropriate database and building of a website for the centre
- Preparation of a book of readings on "50 years of policy making in Nigeria"
- Revenue generation for the centre
- Strategic master plan for the centre

Under SIF 04, significant steps were taken toward the development of the Kano rice policy, and under Mudu grant 09, a study was conducted in Adamawa state revealing the extent of fertiliser subsidy that was wasted due to poor distribution.

6.7 Policy Intervention Achievements

6.7.1 State-level Policy Achievements

Support-Market Change

The support market changes PrOpCom sought to achieve in state-level policy reform were:

- Kano and Ogun states:
 - The private sector (Rice Business Groups) would lobby for government approval and implementation.
 - Government was expected to become more politically and technically active, endorse reform documents, and develop implementation strategies.
- Adamawa state:
 - Government was expected to use policy as an approach rather than decree, and expand its fertiliser distribution channels to reach more farmers as an interim support.
 - Fertiliser companies would invest in establishing distribution networks in preparation for taking control of the entire supply.



Key Market Changes Observed:

- KRBG advocated for policy approval and implementation.
- Kano and Ogun governments approved rice policy and agreed to implementation.
- Kano government set up an implementation drafting committee.
- Government expanded its fertiliser distribution outlets by additional three channels.
- Adamawa government increased its distribution of an additional 5,390 MT (N512,050,000) of subsidised fertiliser to farmers by 2011. PrOpCom's intervention led to over 300% increase in access of farmers to subsidised fertiliser in Adamawa. This means that public distribution was less wasteful and transparency and accountability had improved.
- Dialogue between private fertiliser companies and Adamawa government has improved. With the signing of an MOU, there are indications that the supply of fertiliser to farmers in 2012 will be increased even further.

Core-Market Change

The core market changes PrOpCom sought to achieve in state-level policy reform were:

- Both states would have a policy, and public expectation of and interest in policy would emerge.
- Government would be held accountable for policy implementation.

Key Market Changes Observed:

- Both states now have a policy for rice.
- Equally, the demand for policy, rather than partisan favour has increased from civil society (AFAN, RIFAN).
- In Kano and Ogun states, the intervention has established a mechanism for continued dialogue that will hold government accountable for its actions.
- The participatory policy-drafting model promoted by PrOpCom has been widely institutionalised and extended to other policy areas such as the development of Kola policy in Ogun and agriculture policy in Kano.
- Rehabilitation of Magaga dam in Kano is in progress at the cost of N4.8 billion and contract award for 2 others is in progress. Kano government also plans to invest N5.6 billion on irrigation infrastructure within the next three years.
- Kano government has commenced the development of infrastructure for Kura rice processing cluster.
- Ogun government mapped out suitable land for rice at the cost of N2.02 million.
- Ogun government collaborated with traditional rulers and released about 90 ha of land to rice farmers.
- Ogun government has mapped out all suitable rice producing areas in the state and approved funds for the purchase of four land clearing machines.

Poverty Reduction

Targeted impacts on the poor include:

- Outreach to farmers
- Net income increases for farmers and labourers
- Additional jobs created for farmers and labourers

**Impacts²³***Scale:*

- The Kano state rice policy intervention expects to provide benefits in the form of more land to cultivate rice in and irrigation services to 94,395 farmers.
- Ogun state rice policy intervention expects to reach 24,400 farmers.
- Adamawa fertiliser policy intervention is expected to reach 66,030 farmers.
- **Total beneficiaries reached: 184,825**

Additional jobs created:

- Kano: 1,205 FTE²⁴
- Ogun: 136 FTE
- **Total additional jobs created: 1,341**

Net income increase:

- Kano: N3,639,991,833 (enterprises) and N122,225,596 (labourers)
- Ogun: N195,138,000
- Adamawa: N744,267,341²⁵
- **Total net income increase: N4,701,622,770**

6.7.2 Federal-level Policy Achievements

Support-Market Change

The support market changes PrOpCom sought to achieve in federal-level policy reform were:

- The Network would facilitate exchange of business information among members, and partner with relevant stakeholders to reform rice policies.
- Federal and state governments would be aware of the need to have clear policies and input from the private sector.
- Private sector would mount advocacy pressure on government to address policy weaknesses.
- Government would initiate actions to develop pro-poor and business-friendly policies.
- Businesses would increase investment in domestic production and processing.

²³ State-level policy interventions only measure direct outreach; jobs created and net income increases due to the risky nature of policy interventions. With the length of time policy implementation can take to achieve, there is also the possibility that these impacts will not be seen until December 2013.

²⁴ FTE in Kano and Ogun policy is measured from labour needed to cultivate additional land for rice.

²⁵ Farmer income in Adamawa is measured by equating amount of fertiliser used to profit earned from appropriately using fertiliser in one's farmland.



Key Market Changes Observed:

- 78% of members exchanged useful business information.
- The establishment of the Rice Network has encouraged closer interactions between the NESG and government on rice-related issues and this has boosted the advocacy capacity of private sector stakeholders.
- Pro-rice policy reform papers were presented to the National Assembly and Minister of Agriculture.
- Partnership formed with ECOWAS, NEPAD and JICA to contribute to the National Rice Development Strategy (NRDS).
- Five states (Adamawa, Delta, Enugu, Kwara, Niger and Ondo) are copying the policy activities conducted in Kano, Ogun and Kwara states after attending the policy summits.
- Federal government's National Council on Agriculture adopted PrOpCom's recommendations for all states to document agricultural policies within one year.
- As an outcome of fertiliser roundtable, FEPSAN submitted communiqué to government and still following up for implementation.
- Through the activities of the Rice Network, members were able to collaborate with new business partners thereby boosting their individual business activities. In addition, the activities of the Network have had a significant impact on members' volume of business, profits and number of people employed.
- Impact assessment report indicated an increase of 29% in sales volume and 33% growth in profit accompanied by an 82% increase in the number of employees engaged by members of the RN between 2008 and 2010.

Core-Market Change

The core market changes PrOpCom sought to achieve in federal-level policy reform were:

- Significant interaction by government with private sector to start to recognise the need for competent and lasting policy,
- Government identifies the need for effective partnership to combat rice smuggling, and for increased investment in the domestic rice sector.
- Farmers increase productivity and output.

Key Market Changes Observed:

- Government commitment to proper rice strategy has risen significantly after the elections. In part this can be attributed to PrOpCom's role of stimulating informally.
- Federal government (up to President) has declared that it will not procure fertiliser or waive duty on rice imports.
- Federal government has established a rice transformation strategy task force.



Poverty Reduction

NESG Rice Network and Policy Summits were business-enabling interventions. As such, impacts at the level of farmers' poverty reduction would be difficult to significantly attribute PrOpCom's interventions. Hence there are no numbers for farmer impacts.

6.8 Policy Intervention Sustainability and Risk

It is important to note the commitment demonstrated by government's huge investment of over £18 billion in the agriculture sector thus far. Due to the long period of time during which policy changes can impact private investments, government reform activities have the potential to translate to a significant number of increased number of jobs and income in the future. At present, the volume of private sector investment appears low, but with sustained public investment in developing infrastructure and providing an enabling environment, it is anticipated that the private sector will be more confident to increase its investment in the agriculture sector.

Kano and Ogun. Both the Kano and Ogun policy models are being replicated in other areas. A private consultant is copying the Kano model for Lagos state government. After Kano and Ogun shared their rice policy experience at a national forum, Imo state ADP delegation paid a peer-learning visit to Kano. To ensure policy continuity, the Kano state government has built the rice policy implementation plan into the overall Kano Roadmap document. The new governments in both states have endorsed the policies and expressed commitment to implement. Ogun scheduled a stakeholder meeting to review policy implementation in early October 2011 while Kano planned a rice investment forum and rice policy launch for the second week of October 2011. Above all, the commercial success of the policy implementation can cause a ripple effect in neighbouring states.

Adamawa. The permanent secretary has shared the experience in several national meetings as well as in Ondo state, and has commenced the state's withdrawal from direct fertiliser procurement.

NESG Rice Network. Other commodity-specific advocacy groups have indicated interest in copying the model. The NESG is considering other commodity-based networks, such as cassava, fish, poultry, oil palm and cocoa. Federal government has become keen for partnership with private sector and has opened serious dialogue.

Policy Summits. Other states have shown interest in adopting market-led agricultural policies. Five states have taken significant steps and Benue state has finalised its plan to adopt the model to develop sesame policy. The lack of a central monitoring framework to guide and assess the level of compliance is a potential threat to the implementation of proposed policies.



The risks to the policy intervention's sustainability are summarised in the table below:

| Risk | Probability | Mitigation |
|---|-----------------------|---|
| <p>New governments inaugurated in April 2011 at the state and federal levels require time to form cabinet and endorse the policy process, causing delays in the implementation of the policy.</p> | <p>High</p> | <p>The new agriculture commissioners have been briefed about the rice policy and are committed to endorsing the document and its implementation. Ogun and Kano rice business groups have been strengthened and encouraged to lobby for policy implementation.</p> <p>PrOpCom has submitted its fertiliser survey findings to the new federal agriculture minister. This has partially informed his decision to announce government withdrawal of subsidy.</p> |
| <p>Adamawa's governorship election is scheduled for February 2012. The policy reform is threatened by the risk of government's use of fertiliser subsidy as campaign bait for elections.</p> | <p>Medium to high</p> | <p>The state government is planning to adopt a fertiliser voucher system following the withdrawal of direct procurement and distribution at the federal level.</p> |
| <p>Weak secretarial base and poor funding of NESG Rice Network.</p> | <p>Medium to high</p> | <p>The leadership of the NESG agriculture commission has been advised to take administrative measures to address these problems.</p> |



INTERVENTION: Fertiliser Summary

BACKGROUND

Agricultural productivity increases in Nigeria over the past 50 years have been among the lowest in the world. A key cause for this is farmer's low use of fertiliser at only 5-10 kg/ha. Fertiliser is sold in the open market only in 50-kg bags, and poor farmers cannot afford the heavy price tag. Government procures, subsidises and distributes fertiliser, but it rarely reaches the intended beneficiaries due to corruptions in the supply chain (in some cases only 11% of intended farmers). Fertiliser companies have therefore only focused on supplying government contract orders, rather than focusing on serving the farmers' needs by setting up 'last-mile' distribution systems or more affordable package sizes.

STRATEGY

PrOpCom sought to catalyse private fertiliser companies to fill the 2.9 million MT annual gap between potential demand and actual supply. This would be achieved by refocusing private fertiliser companies' sales efforts on selling directly to smallholders in remote areas. This would provide poor farmers with an alternative to publicly subsidised fertiliser. By developing affordable small packs of fertiliser, improved blends of fertiliser, training for farmers on how to apply fertiliser, and private distribution channels to remote villages, more fertiliser could reach more farmers — thereby increasing crop yield and incomes.

KEY INTERVENTION ACTIVITIES

- Established reliable, private distribution channels through which fertiliser of high quality was sold in affordable package sizes.
- Increased farmers' access to information on good agricultural practices.
- Introduced new blends of fertiliser that were more effective for improving farmers' yields.

KEY MARKET SYSTEM CHANGES

- Increased private sector investment in the distribution and direct sale of fertiliser to smallholder farmers in rural areas. A functional network of distributors and rural promoters has been set up.
- Improved private sector provision of more appropriate fertiliser product packaging in affordable pack sizes of 1 kg and 10 kg to meet farmers' financial constraints. Sales coupled with training services to meet the information needs of smallholder farmers.
- Private sector more involved in calls for government's withdrawal from direct procurement and distribution of fertilisers, through a national association, the Fertiliser Suppliers Association of Nigeria (FEPSAN).
- Federal government recently announced its intention to stop public procurement. This signals a huge policy shift.

KEY CHALLENGES AND RISKS

- Gaining top management and board commitment to investing in mass domestic market and financing market creation.
- Identifying and building capacity of good Notore distribution partners (DPs). Building incentives for them to successfully manage their own village promoter (VP) networks.
- Risk of competition in target areas from subsidised fertiliser.
- Plant failure.
- Improving performance management within Notore's sales and agricultural services operations.
- Low margins, sales territory restrictions and mobility hampered VP incentives.
- Delays in product supplies and eventual stock-outs. Market demand for 1-kg bags not met.
- Notore's inability to access bank loans to finance NPK importation and expand its distribution channel.

KEY LESSONS LEARNED

- Farmers accept new changes and will buy products through proof of performance, i.e., seeing that new practices will result in a better yield, and contribute to a better standard of living.
- Sharing results chain with partner helps to achieve the overall objective.
- How the training on appropriate fertiliser application is passed on to the farmers critically affects end user adoption of the lessons. Farmers must easily understand the lessons.
- Fertiliser companies need to clearly understand how communication in the distributor-retailer-farmer supply chain is working in order to promote sales and farmer adoption of new techniques.



7. FERTILISER

7.1 Introduction to the Fertiliser Market

Nigeria's agricultural production output is estimated at N10 trillion, the majority of which is produced by the nation's roughly 16 million smallholder families. However, productivity increases in Nigeria over the past half-century have been among the lowest in the world: in the period from 1961 to 2001, cereal yields in Sub-Saharan Africa increased by only 31 percent, as compared to yield increases of 140 percent in Asia.²⁶ A primary cause for the stagnant crop productivity is farmer's low use of improved farm inputs such as fertiliser and seeds. In fact, Nigeria's fertiliser use is among the lowest in the world at roughly 5-10 kg/ha, as compared to 50 kg/ha in South Africa.²⁷ The lack of nutrient depletion has deteriorated the quality of Nigerian farmers' soils, and led to productivity declines — causing farmers to expand their farm areas to maintain harvest volumes rather than maximise the efficiency and profit of smaller plots.

Three major bottlenecks that prevent farmers from using improved production technologies are lack of money, poor understanding of the correct application techniques, and, perhaps most critically, lack of access due to market failure.

- *Lack of money:* Fertilisers are commonly sold in urban markets in 50kg bags for £14-22. Most smallholders only earn the equivalent of £0.33-0.55 per day from their farming activities.²⁸ Savings rates are poor and many cannot afford the full price of a 50-kg bag.
- *Poor understanding of application techniques:* Many farmers lack knowledge on correct dosages and application. Over 90 percent of farmers surveyed in three northern states²⁹ agreed with the statement that they need more training on how to use fertiliser; but widespread information services for farmers are largely lacking.
- *Lack of access:* Retail markets for fertiliser are located in urban centres, far from the rural farming communities. Publicly procured and subsidised fertiliser supplies often arrive late, after planting season has passed. Farmers surveyed said that you need a godfather to access fertiliser distributed by the local governments. Public involvement in the market crowds-out private enterprise, investment and innovation.

The cause for the dysfunctional state of farmers' fertiliser access and usage is that the market is distorted by public sector procurement, subsidy and distribution. Here the federal government contracts and procures large orders from fertiliser companies, and then the federal and state governments each subsidise roughly 25 percent of the price before delivering the fertiliser to the states' agricultural distribution warehouses. However, much of this fertiliser is diverted, sold off to befriended businessmen at higher prices, who in turn sell this fertiliser at a higher price to traders inside or outside the country. As a result of the diversions, the "subsidised" fertiliser reaches the farmers too late, not at all, or ends up in the open markets at near-market prices — in some instances becoming adulterated in the process.

Private fertiliser companies choose not to sell directly to smallholder farmers because the companies and distributors prefer doing business with government. Selling large, bulk orders in government contracts is easier and more profitable than getting involved in

²⁶ FAO Stat.

²⁷ World Bank Data.

²⁸ Olawepo, R.A., *Determining Rural Farmers' Income: A rural Nigeria Experience*
<http://www.academicjournals.org/jasd/PDF/pdf2010/May/Olawepo.pdf>.

²⁹ IFDC internal impact assessment survey, 2010.



a long distribution chain to reach the rural customers. It also presents the opportunity for profit by corrupt practice.

7.2 Fertiliser Intervention: Pro-Poor Rationale

Increasing farmers' use of fertiliser in Nigeria requires improving their access in rural areas, and ensuring that it is sold at a price they can afford. By increasing the use of fertiliser and correct application techniques, poor farmers in Nigeria can potentially improve their yields by roughly 30-55 percent, which will lead to an increase in their profits.³⁰

7.3 Fertiliser Intervention Partner Summary

Notore Chemical Industries Limited

At the same time that PrOpCom began investigating the fertiliser market, Notore was also seeking innovative support to grow its business. As such, this mutual interest allowed PrOpCom's intervention strategy to take on a concrete form with a motivated partner. PrOpCom decided to facilitate the company's involvement in the improved sale and distribution of fertiliser.

In July 2009, representatives from Notore and PrOpCom visited the project areas in Kenya of Farm Input Promotions Africa (FIPS-Africa), an East African non-profit organisation, to learn more about their approach. FIPS-Africa's innovative methodology involved packaging fertiliser into small, affordable bag sizes to encourage farmers to experiment with its use at a low price. FIPS-Africa had also developed networks of rural agents to promote the small packages of new fertiliser blends and educate farmers on proper farming techniques. A representative from FIPS-Africa then visited Niger and Kwara states in September 2009 to learn about Notore's activities. An agreement was made that FIPS-Africa would advise Notore on developing a fertiliser promotion program to rapidly increase demand for its products among smallholder farmers. An agreement was reached with Notore in October 2009.

As a first step, a pilot ("Fast Track") was set up in two states: Katsina and Niger. The initial plan was that Notore would contract four Distribution Partners (DPs), or two per state, to sell 1-kg packages of branded Notore fertiliser to 80 Village Promoters (VPs). The 80 VPs would set up a total of 800 demonstration plots to teach farmers a set of Good Agricultural Practices (GAP) including proper spacing of seeds and fertiliser, correct dosages, and application timelines. Lastly, the VPs would sell a total volume of 80,000 kg to 40,000 farmers.

In each state prospective VPs were recruited and needed to be trained. Since Notore had no experience in this area, PrOpCom contracted FIPS-Africa to provide the technical support. Only 30 VPs were recruited and in December 2009 FIPS-Africa conducted the training. In January 2009 the Fast Track sales and farmer training pilot was then launched.

The end result was that the sales plan was grossly underachieved, with Notore only reaching 9 percent of its targeted sales volume, or 7,168 kg. PrOpCom conducted a critical evaluation of the pilot's performance and discovered that VPs found it difficult and

³⁰ PrOpCom assessment of 2009; FEPSAN presentation (2006 Africa Fertiliser Summit).



expensive to transport fertiliser (for sales) from one location to another and customers found the price of the 1-kg pack too high.

PrOpCom then worked with Notore to improve its rural distribution model and achieve greater geographic reach in a scale-up project (“On-Track”). Based on PrOpCom’s evaluation of Fast-Track’s shortcomings, the following changes were made for On-Track: (1) In April 2010 PrOpCom conducted a market study on open container fertiliser prices in order to help Notore price their product appropriately. The price was then reduced from N150 per pack to N120 - N130 per pack. (2) DPs’ and VPs’ sales margins were increased. (3) VPs were offered staged incentives to improve their productivity (a mobile phone and a motorbike) the more they sold fertiliser and set up effective demonstration plots.

Notore’s new targets for On-Track included selling 900 MT of fertiliser to 450,000³¹ farmers in 12 states across Nigeria, through a supply chain comprising 12 DPs and 150 VPs. PrOpCom assisted Notore in the selection of new target areas in 12 states for the launch of the On-Track phase in April 2010. PrOpCom provided cost-sharing support to Notore’s On-Track project by paying the DPs for getting their VPs to set up successful demonstrations, and for training of VPs to improve the knowledge base and address other product distribution related problems. PrOpCom again contracted FIPS-Africa to offer more technical assistance to Notore on the training of newly recruited VPs in May 2010.

By the end of 2010 Notore was able to expand to three additional states without PrOpCom support (bringing the total geographic reach to 15 states), indicating the likelihood of Notore to sustain the initiatives of the project on its own. However, the actual sales of the On-Track project achieved only 217 MT (January 2011) and 129,600 farmers reached through demonstrations and market storms and only 60,589 farmers purchasing fertiliser. Also 40 VPs dropped out of the program, due to initial unavailability of fertiliser stocks for them to sell, leaving the final number at 110.

After the completion of the On-Track partnership phase with Notore in 2010, another review was done to find out ways that Notore could further improve the model and better achieve its targets. The major issues identified were: delays in the supply of product, stock-outs in the middle of the season, direct management of VPs by Notore agric execs rather than DPs, more time dedicated to demonstrations than market promotions by VPs, low VP mobility, among other things.

“The stone the builder first rejected has now become the cornerstone.”

— Ayodele Balogun,
Chief Marketing Officer, Notore Chemical Industries Ltd.,
(describing the significance of the 1-kg project to Notore)

“I am particularly happy to see a Nigerian planning for the good of another. Nigeria will import less fertiliser if Notore is supported to increase its output. I therefore request that the heads of marketing and agricultural services of Notore pick the best village promoters and put them into a formidable group for the bank to assist.”

— Evelyn Oputu,
Managing Director and CEO, Bank of Industry
(during a tour of Notore plant in Onne in May 2011)

Following the extension of the programme, PrOpCom extended the intervention for the 2011 season, including modifications to the model to ensure broad scale of impact and a

³¹ In On-Track, each of the 150 VPs was given the target of reaching 1,000 farmers through 10 demonstrations, and of reaching 2,000 farmers through 10 market storms.



well embedded and functioning organisational model. PrOpCom's final 2011 scale-up plan increased the geographic reach of activities to 750 target areas in 250 LGAs across 25 targeted states (including the 12 original On-Track states) involving 900 VPs (150 existing and 750 new VPs). The target sales included selling at least 5,000 MT of fertiliser to 878,700 farmers.

Lastly, PrOpCom contracted FIPS-Africa in April 2011 to provide further technical and management advice on promoting and selling of fertiliser and on managing sales channel. To ensure the partner keep to the project initiatives, PrOpCom decided to revise its offer – with a view to ensuring and entrenching sustainability.

TAK Agro Limited

In May 2010 PrOpCom assisted Tak Agro by facilitating in the design of a new private distribution channel for selling 1kg fertiliser. PrOpCom introduced FIPS to Tak Agro chemical to offer technical advice on the production of a new blend of fertiliser. Tak Agro eventually produced the new blend and named it *Tak Aminchi*, meaning “the trusted.”.

In June 2010 PrOpCom assisted Tak Agro in identifying 150 TAK Rural Promoters (TRPs) through the company's distribution partners and in identifying five target areas in Kaduna state. PrOpCom also assisted Tak Agro in the recruitment of five Promotion Coordinators (PCs) who managed and coordinated the activities of the TRPs.

PrOpCom contracted FIPS Africa to provide technical assistance to Tak Agro to train PCs, retailers and TRPs on how to set up demos, develop a marketing strategy, training skills and importance of new blend (TAK Aminchi) in June 2010. PrOpCom facilitated linkage with seed companies to promote seeds for demo plots in June 2010.

The Tak Aminchi 1-kg program did not yield the desired results, due in large part to complexities in the supply channel: Tak Agro had included an additional layer in the supply, such that distributors sold to agro-retailers, who in turn sold to the TRPs, who were then responsible for selling to rural farmers. TRPs did not focus on selling fertiliser; their primary incentive was to receive payment for setting up demonstration plots.

By the end of the pilot, Tak Agro's TRPs set up 849 demonstrations; 5,800 kg of Tak Aminchi 1-kg bags were sold. As of October 2011, Tak Agro has not taken the initiative forward. For Tak Agro to get it right, it would need to set up a management structure to react effectively and efficiently to changes in the fertiliser market.



7.4 Fertiliser Intervention Grants

PrOpCom Fertiliser Intervention Grants

| Grant No. | Period of Performance | Title of Grant | Name of Grantee | Value of Grant (N) | Amount Paid (N) |
|--------------------------------------|-----------------------|--|-----------------|--------------------|-------------------|
| Mudu Fund-05 | Apr 2009 – Sept 2009 | Mudu Fund-05 | Notore | 2,505,600 | 2,505,600 |
| Mudu Fund-15 | June 2010 – Nov 2010 | On-Track Distribution Partners | Inter Products | 8,400,000 | 1,544,000 |
| Mudu Fund-16 | June 2010 – Nov 2010 | On-Track Distribution Partners | Gas Derivatives | 3,150,000 | 869,000 |
| Mudu Fund-18 | June 2010 – Nov 2010 | On-Track Distribution Partners | Zee agro | 2,100,000 | 226,500 |
| Mudu Fund-19 | June 2010 – Nov 2010 | On Track Distribution Partners | Evans Oragui | 1,050,000 | 0 |
| Mudu Fund-20 | June 2010 – Feb 2011 | Fertiliser access & knowledge in Kaduna State | Tak Agro | 6,000,000 | 1,282,500 |
| Mudu Fund-22 | Mar 2011 – Oct 2011 | Institutionalising Small-pack Promotion Strategy for improving Smallholder Farmers Access to appropriate Farm Inputs and Education | Notore | 22,000,000 | 15,200,000 |
| Total Grant Value Awarded (N) | | | | | 21,627,600 |

Mudu Fund 05: Notore Fast-Track Pilot

Mudu Fund 05 contracted FIPS-Africa to provide technical support to Notore on the 1-kg project. FIPS Africa was selected based on the success of its rural fertiliser sales activities in Kenya and Tanzania. PrOpCom paid for the organisation and execution of Nigerian Agricultural Enterprise Curriculum (NAEC) training sessions at specific locations for an identified group of agro-dealers. PrOpCom paid 48 percent of the cost. Notore also paid 48 percent, while the trainees shouldered 4 percent. PrOpCom's support aimed to help 20,000 smallholder farmers be better entrepreneurs by providing selected agro-dealers with NAEC training as a means of improving their services.

Mudu Funds 15, 16, 18, 19: On-Track

Mudu Fund grants 15, 16, 18 and 19 were extended to Notore during its On-Track phase during the 2010 season. The individual grants were extended to the distribution partners rather than Notore directly, because (1) British newspapers were reporting on corruption charges being brought against a former majority shareholder of Notore, and politically it would have been inappropriate to grant money to Notore at that time, and (2) it was thought that a direct payment to DPs would help them take a more active role in collaborating with their VPs. Hence, distributors were paid for their VPs' successful establishment of demonstration plots. VPs with well-organised demo plots also qualified for sales incentives; these were not designed as compensation for setting up demo plots,



but rather to promote farmer learning and VP sales. The Fast-Track pilot experience showed that VPs had transportation challenges in moving the products from the DP warehouses to the villages. To address this issue, PrOpCom agreed to pay for a Notore-branded motorbike as a sales incentive to every VP that sold 15 MT of product, set up 15 demonstrations, implemented 15 market promotions, and reached 1,000 farmers. PrOpCom paid N658,000 for seven motorbikes.

For Mudu Funds 15, 16, and 18, payments were made for successful demos based on field research officers' verification. However, for Mudu Fund 19, satisfactory demonstrations were not clearly verified; hence the DP did not qualify for payment.

Mudu Fund 20: TAK Agro

PrOpCom's grant support for Tak Agro was aimed at facilitating the production and rural promotion of an improved blend of NPK fertiliser with sulphur and calcium in 1-kg packs. The secondary aim was to promote crowding-in to the rural fertiliser distribution market. PrOpCom agreed to pay the fees for the TRPs to set up demonstration plots. The agreement was such that TAK would pay the TRPs, and then PrOpCom would reimburse TAK for successful farmer turnout at demonstrations. In the first demonstration round (planting and NPK application), the payment of worked as agreed. In the second and third demonstration rounds, however, farmer turnout was exceedingly low, averaging only 5-7 farmers per site. PrOpCom therefore did not reimburse TAK, because PrOpCom felt that TAK had not properly fulfilled its responsibilities in line with the MoU. Remaining funds were therefore returned to DFID.

Mudu Fund 22: Notore Fertiliser Distribution Scale-up 2011

The March 2011 grant agreement aimed to increase the sales of Notore's small pack fertiliser to 25 agricultural states, through a distribution network of 900 village promoters. The terms of the partnership changed in this grant: PrOpCom would reward Notore only after effective farmer education and target sales had been achieved. The reward was to be paid to Notore in three tranches:

- *Phase 1:* Notore signs agreements with the DPs in the target states. Notore asks their DPs to sign agreement with the selected VPs in all the target states/areas.
- *Phase 2:* Notore reaches the sales target of 2,500MT by 1 July 2011 and continues providing education to farmers.
- *Phase 3:* Notore reaches the sales target of 5,000MT (cumulative) by 1 October 2011 and continues providing education to over 1 million farmers.
 - *Bonus payment:* Notore achieves sales of 7,500MT (cumulative) in Phase 3.

Notore met the phase 1 deliverables but did not achieve the July 2011 sales target. In July and August 2011, Notore requested a modification to the grant agreement to push back the date of the Phase 2 target to September, and for Phase 3 to include the sales of its new 10-kg pack into the sales target amount (as it did not believe it would meet its final target with only 1-kg sales and it wanted some recognition for this innovation). Notore then met the Phase 2 target. However, the firm did not meet the final October deliverable³² due to the turnaround maintenance of the plant that reduced supply, and because it ran out of working capital to purchase and import the NPK fertiliser.

³² By 22 September 2011, Notore had sold 4,044 MT of the targeted 5,000 MT, and announced it would not reach the target.



7.5 Fertiliser Intervention Achievements

Support-Market Change

The key support market changes the fertiliser intervention sought to achieve were:

- Changed attitudes of fertiliser companies toward selling to smallholder farmers.
- Development of new business models to provide improved products and services that better meet the needs of smallholder farmers
- Establishment of functioning rural distribution networks:
 - Networks of distributors recruited who are willing to change their operating models, such that they sell larger volumes of product at lower margins across a broader market with high growth potential (vs. selling small volumes at large margins).
 - Networks of rural promoters recruited, and trained to educate smallholder farmers in best farming practices and to sell the appropriate farm inputs.
 - Distributors able to effectively supply and manage rural promoter networks.
- Improved fertiliser company organisational capacity. Fertiliser companies able to manage and expand their networks of distributors and rural promoters. Partners able to monitor sales and distributor/promoter performance. Geographic scale achieved.
- Crowding-in of other fertiliser companies

Key Market Changes Observed:

Changed attitudes:

- Notore invested an estimated N139 million³³ in the 1-kg program — showing commitment to the new business model.

Improved products and services:

- Notore introduced more farmer-friendly products and services: 1kg pack, 10kg pack, farmer GAP training, began training Crop Protection Products (CPP) retailers, explored a partnership with a seed company.
- TAK Agro produced an improved blend of NPKSCa, and sold 10.7³⁴ metric tons of its *Aminchi* 1-kg packs between June 2010 to late July 2010.
- In total, 3,340 demonstrations³⁵ were conducted (1 Oct 2011).
- An estimated 3,330 market storms³⁶ were conducted (1 Oct 2011).
- 211,872 farmers received GAP training in demonstrations.³⁷

Established rural distribution network:

- Notore set up a network of 900 VPs and 25 DPs in 25 states of Nigeria; all 900 VPs have been trained on good agricultural practices.
- Unlike in the pilot stages, Notore DPs are now eager to order and sell the 1-kg packs.³⁸

³³ Investment is calculated as cost of goods sold, which includes, among other things, packaging cost, haulage, setting up distribution networks, training, incentives, personnel costs for managing the program.

³⁴ Sales of 10.7 MT comprised both NPKSCa and urea in 1-kg packs; a breakdown was not furnished by TAK.

³⁵ Fast track: 65; On-Track: 843; Tak Agro: 849; Notore 2011 scale-up: 1,583 (1 Oct 2011).

³⁶ On-Track: 750; Notore 2011 scale-up: 2,580 (1 Oct 2011)

³⁷ Fast track: 4,350; On-Track: 77,880; Tak Agro: 8,590; Notore 2011 scale-up: 121,052 (1 Oct 2011).



Improved organisational capacity:

- Notore improved the monitoring of its product sales in the field.
- Notore improved the supervision and management of DP and VP performance.³⁹
- Efforts now geared towards expanding the DP-VP-farmer channel.⁴⁰
- Notore has expanded its management capacity as the project has scaled up, by introducing a new job level of 'area manager'.⁴¹

Core-Market Change

The core market changes the fertiliser intervention sought to achieve were:

- Smallholder farmers to buy the small packs of fertiliser sold by rural promoters.
- Smallholder farmers to adopt the farming practices taught by the rural promoters.
- Productivity expected to increase due to additional fertiliser use and correct application.

Key Market Changes Observed:

- 4,279 metric tons⁴² of fertiliser in 1-kg packs were purchased by 1,003,418⁴³ farmers (Dec 2009 – 1 Oct 2011).
- 57-67% of farmers attending demonstrations both learned and adopted at least two of the four new practices taught. 95% of farmers surveyed remembered at least two of the four practices taught.⁴⁴
- Farmers who bought the fertiliser sold increased their productivity on average by 31%.

Poverty Reduction

The poverty reduction indicators the fertiliser intervention sought to achieve were:

- Scale: Number of farmers benefitted through increased access to fertiliser purchase and training.

³⁸ In the Fast-Track pilot, Notore supplied a portion of 1-kg packs into the DPs' truckload orders for 50-kg bags—without being ordered by the DPs. By 22nd Sept 2011, 15 of Notore's 25 DPs had ordered and been supplied with at least one truckload (30 MT) of 1-kg packs of fertiliser, requiring an average capital outlay of roughly N3 million. The total stock sold to DPs by this time was 3,187 MT of 1-kg packs. A field survey revealed that many DPs wanted to order more due to VP demand, but Notore had no product to supply, and therefore could not place orders.

³⁹ By September 2011, regional managers had begun more actively visiting the VPs and Agric Execs to ensure that sales were taking place and to inspect the operations. Agric execs had increased their field visits of VPs. Monthly meetings were being conducted among Agric Execs and sales staff to review market storm sales figures.

⁴⁰ By September 2011 Notore had commenced recruiting more than one DP per state in order to expand its outreach and deliver better service through the channel.

⁴¹ Area managers are 'agricultural executives' who have performed well and deserve a promotion in salary and responsibility. While agric execs supervise the VPs of one state, the promoted area managers become responsible for monitoring the VPs' activities of at least two states, and are the next in line for promotion to regional manager.

⁴² Fast Track: 7.1 MT; On-Track: 217.2 MT; TAK Agro: 10.7 MT; Notore 2011 scale-up: 4,044 MT

⁴³ Fast track: 2,084; On-Track: 54,530; TAK Agro: 6,840; Notore 2011 scale-up: 939,964

⁴⁴ On-track study revealed that 57% of surveyed farmers learned and adopted at least 2 of the 4 improved practices. TAK Agro survey showed 67% of farmers adopted the improved practices. Notore 2011 survey showed that 95% of farmers *remembered* at least 2 of the 4 improved practices. The adoption rate will be determined through an impact assessment concluded in the 3rd week of October.



- Total net income increases for farmers and VPs.
- Additional jobs for VPs and TRPs.

Fertiliser Intervention



Impacts

Scale:

- 1,003,418 farmers were directly benefitted by December 2011
- This will lead to an indirect outreach to an additional 969,745 farmers by December 2013.⁴⁵
- **Total farmer outreach of 1,973,163**

Additional jobs created:

- 860 Notore VPs were employed as a direct result of PrOpCom's intervention by December 2011 (On-Track: 110 VPs; 2011 scale-up: 750 VPs).
- 150 TAK rural promoters were employed.
- 750 VPs will be employed as an indirect result of PrOpCom's intervention by December 2013⁴⁶
- **Total jobs created: 1,760**

Net income increase:

- Direct beneficiaries: N1,389,043,959 (farmers: N319,375,709⁴⁷; VPs: N60,668,250⁴⁸; December 2011).
- Indirect beneficiaries: N4,381,087,570 (farmers: N4,173,834,462⁴⁹; VPs: N207,253,107⁵⁰; December 2013).
- **Total net income increase: N8,617,229,630**

7.6 Fertiliser Intervention Sustainability and Risk

The signals of sustainability in this intervention include:

- *Capacity development:* Notore has significantly increased its management capacity to include additional management layers, which will help it expand in the future. Notore has increased its supply of quality fertiliser in the private market through its own distribution channel over the last three years, and has continued to monitor its sales performance. It is highly likely that this expansion will continue.

⁴⁵ Indirect outreach from the fertiliser intervention includes: (1) farmers who copy fertiliser application behaviors (in 2012 and 2013) from farmers who learned directly from Notore VPs (prior to Dec 2011); and (2) farmers who are reached by new Notore VPs in the new LGAs (2012 and 2013).

⁴⁶ Assumes expansion to 250 new LGAs within next two years.

⁴⁷ Calculation of net income increase for direct beneficiaries is graduated: It is assumed that in the first year of fertiliser purchase, farmers will buy 4kg and earn N1,017 in additional profit; in their second year of purchase, they will increase the purchase volume to 10kg and earn N2,544 in additional profit; in their third year of purchase, they will buy 25kg and earn N6,361; in their fourth year of purchase, they will buy 50 kg and earn N12,723. As such, Fast Track direct beneficiaries were calculated as earning N6,361 additional profit per farmer; On-Track farmers are at N2,544; TAK farmers are at N2,544; Notore 2011 scale-up farmers are at N1,017. (Fast track: N36,857,624; On-Track: N300,918,270; TAK Agro: N110,496,796; Notore 2011 scale-up: N871,103,019).

⁴⁸ VPs earn NGN N20 per 1kg of sales.

⁴⁹ Indirect net income includes: (1) Additional profit to 'direct' farmers based on advancement to next year of graduated annual income increase assumptions in 2012 (i.e., Fast Track farmers earn N12,723; On-Track: N6,361; TAK: N6,361; Notore 2011: N2,544). (2) Annual additional profit of copying farmers (indirect beneficiaries) of the Notore 2011 scale-up (N1,017 in 2012 and N2,544 in 2013 profit per farmer). On-Track: N30,088,053; Notore 2011: N3,467,025,152

⁵⁰ Direct: N149,535,420; Indirect: N207,253,107.



- *Well-aligned incentives:* The private distribution channel has been a profitable model for all actors in the supply chain: Notore has increased its volume of sales, distributors are increasing the amount of stocks they order, VPs are increasing their incomes due to profitable margins, and customers are increasing their crop yields.

Signs of crowding-in of partners include:

- PrOpCom worked with Tak Agro on a pilot to encourage crowding-in, but the model did not take off. Reports indicated, however, that Tak Agro was still producing the improved blend of NPKSCa (but in the original 50kg bags). Crowding-in may still happen between 2011 and 2015 as Notore continues to expand and other competitors become more aware of the market potential.

The risks to the sustainability of impact include:

| Risk | Probability | Mitigation |
|---|----------------|--|
| <p>Distortion of the market. The continued involvement of the government in the direct procurement and distribution of fertilisers will further distort the market. The private sector players tend to be more focused to getting government orders instead of developing their own retail channels.</p> | Medium to high | <ul style="list-style-type: none"> • PrOpCom worked with federal and state government in the area of policy reform to influence the withdrawal from direct procurement and distribution of subsidised fertiliser. The FGN indicated its intention in Sept 2011 to gradually withdraw from direct procurement and distribution, using the results of a survey conducted by PrOpCom as the basis for its pronouncement. • PrOpCom convinced Notore (plus other similar players in the sector) of the potential in the open market instead of just focusing on government orders. |
| <p>Crowding-in. Fertiliser companies still unwilling to develop the market for the private sector distribution and farmer education.</p> | High | <ul style="list-style-type: none"> • PrOpCom worked with FEPSAN to relate the Notore experience. PrOpCom produced and shared an advocacy video to relevant stakeholders aimed at getting the private sector to appreciate the potential of the open market and the public sector to withdraw. |
| <p>Lack of quality regulation. There is no convincing public or private system on the ground to regulate quality of fertiliser in the market. This has resulted in supply of poor quality and adulterated fertilisers in the market, creating skepticism among farmers.</p> | Medium to high | <ul style="list-style-type: none"> • PrOpCom worked with Notore and TAK on how to prepare improved blends that would be more suitable to meet farmers' needs. Farmers were also taught on appropriate application in order to get good results from fertiliser use. These efforts would help build farmers' trust in the private sector companies and build demand for higher quality, privately sold fertilisers. |



INTERVENTION: Mobile Banking Summary

BACKGROUND

The percentage of Nigerians with access to formal financial services is among the lowest in Africa. Approximately 72% of Nigerian adult population are considered “rural,” and live in areas where access to financial service is especially difficult. The banking sector in Nigeria focuses largely on urban (and salaried) customers, to the exclusion of the rural population. At the same time, mobile phone penetration in Nigeria lies at 56% of the population, while about 80% of the population lives within mobile phone coverage. The increased penetration of mobile phones in Nigeria has created an opportunity in the form of mobile phone-based financial services for the rural un-banked. eTranzact and Pagatech developed mobile-banking solutions and were interested in rolling these out to rural areas in Nigeria.

STRATEGY

PrOpCom worked with these two mobile-payments service providers to facilitate their entrance into the rural market, and thus increase the access and affordability of financial services and savings to the un-banked rural population. PrOpCom advised both these companies on their business strategy, marketing, product placement, pricing, agent training and network development, and introduced them to companies with strong links to the rural market. The aim was to stimulate financial deepening and make farmers more bankable by connecting them to low-cost mobile banking services.

KEY INTERVENTION ACTIVITIES

- Advised mobile banking service providers on entering the rural market and fine-tuning their offer to rural un-banked.
- Introduced providers to business operating in/around rural markets.
- Encouraged business operating in rural communities to incorporate mobile-based payments into their business strategies on a trial basis.
- Carried out market research and impact assessment and shared results as well as other knowledge gathered with all partners.

KEY MARKET SYSTEM CHANGES

- Service providers modified their mobile-banking products and prices to suit the rural market.
- Rural-based agents were trained and able to meet the needs of the rural population.

KEY CHALLENGES AND RISKS

- Nigerian citizens are leery of “unsteady” financial service providers. There is a cultural preference for storing money in tangible forms versus in “virtual” forms that cannot be seen or counted.
- Many potential partners had reservations about reliability of mobile payments, and some preferred seeing cash transactions.
- Many partners claimed to have internal issues to contend with, making introducing mobile payment systems untenable at the time.
- The Central Bank of Nigeria itself has reservations about the security of payment systems as well as the market’s preparedness to accept them. Licensing is overly cautious and unpredictable.
- Mobile phone networks in Nigeria are erratic and transactions may be delayed. “Fake” handsets, mostly from China, cannot fully execute the set of instructions required to make a transaction.

KEY LESSONS LEARNED

- Market research showed that the rural market is willing and capable of using mobile-based financial solutions.
- However, mobile payment service providers were reluctant to invest their resources to reach the rural market, preferring to concentrate on urban areas where they believed they have the critical mass to sustain their business. This hesitation seems to come both from a misunderstanding of the rural partners and market as well as an aversion to travelling outside of the “safety zone” of Lagos, where most service providers are based, in order to better understand the rural markets.
- The idea of incorporating mobile-based payments into the businesses of some partners is an idea ahead of its time, with most partners feeling they have bigger concerns than streamlining their cash receipts.



8. MOBILE BANKING

8.1 Introduction to the Mobile Banking Market

The percentage of Nigerian population with access to formal financial services is among the lowest in Africa. In 2008 18 million Nigerian adults (21 percent of the adult population) had bank accounts, compared to 61 percent who said they would like to have one. At the same time approximately 72 percent of Nigeria's adult population is considered "rural," and lives in areas where access to financial service is especially difficult. The dearth of banking services in rural areas means that individuals are often inconvenienced when it comes to saving, moving, or accessing their cash. Rural workers rely on informal financial transactions: saving cash in their homes, making cash-only transactions, and sending and receiving cash via friends and public transport.

The banking sector in Nigeria focuses largely on urban (and salaried) customers, to the exclusion of the rural population. At the same time, mobile phone penetration in Nigeria has risen sharply in the last 10 years, and now 56 percent of Nigerians have mobile phones, while about 80 percent of the population lives within mobile phone coverage.

The increased penetration of mobile phones in Nigeria has created an opportunity in the form of mobile phone-based financial services for the rural un-banked. Mobile-based solutions allow anyone with a mobile phone and within coverage area to access financial services through their phones. With these products, an individual in any location can load their account (cash-in) and make payments for goods and services, transfers and other transactions with their mobile phone to people in the same or other parts of the country, saving them money and time in travel to these destinations to make or take payments.

Mobile banking is a relatively new service in Nigeria. Despite the nascent market opportunity, the rural market is hampered by several constraints:

- *Lack of outreach:* Banks have little exposure to the rural economy and generally do not consider farmers to be bankable.
- *Cost of outreach:* The cost of setting up a new bank branch is such that many banks would prefer to do this in a densely populated urban area where such costs are justified by the footfall of customers.
- *Lack of awareness:* Rural consumers are unaware of alternative banking services such as mobile banking products.
- *Inadequate market knowledge:* Mobile-payments service providers do not understand the rural market. They think the rural population is either too poor to target or incapable of understanding the product. They also largely expect that their product offering to the urban market should automatically meet the needs of the rural market.
- *Dearth of agents:* Mobile-payments service providers lack the staff network to facilitate and support transactions in rural areas away from formal banking infrastructure.

8.2 Mobile Banking Intervention: Pro-Poor Rationale

PrOpCom viewed the uptake of mobile banking services by the rural poor as a channel to facilitate the fast and efficient flow of funds as well as a secure store of cash. Mobile banking could bring the rural un-banked closer to the formal banking sector, by generating a transactions and credit history on which they can leverage borrowing. PrOpCom recognised the benefit of mobile-based payments and savings in its intervention areas in which access to finance and financial services is a key constraint, such as women parboilers, fertiliser distributors and users, tractor owners and operators, etc., many of whom do not have or operate formal bank accounts. Hence this was a crosscutting intervention with the possibility of



improving the impact of other interventions while generating independent cost-saving and job-creating impacts of its own.

8.3 Mobile Banking Intervention Partner Summary

eTranzact

eTranzact is one of four switches in Nigeria that transfers value electronically. The company had developed a mobile-based financial solutions product, which it planned to roll out across the country. eTranzact's products enable banked and un-banked users to securely and efficiently move money from point to point through their mobile phones, without the need to carry actual cash. PrOpCom conducted a survey of potential agents and users of mobile banking to assess the market demand for these services in rural areas. The survey found that all respondents (both farmers and agro-dealers) were interested in the possibility of using their mobile phones to carry out financial transactions.

In January 2010 PrOpCom partnered with eTranzact to bring the benefits of mobile banking to the rural areas of Nigeria. Discussions with the other market-ready switches did not yield results; only eTranzact showed interest in the rural market. PrOpCom also engaged the services of a consultant from Microsave Kenya to look into the viability of incorporating mobile-based payments into the Olam Rice Mill business. Based on the consultant's positive findings, PrOpCom organised a visit to Olam's mill in February 2010 for eTranzact, and Olam also brought its lead farmers in to hear and learn about the mobile-payment products on offer. The idea was for the rice mill to make mobile-based payments to farmers for paddy. Both Olam and their lead farmers were interested, but due to the lack of agents on ground in rural Benue state, the proposed pilot could not take off during the 2009/10 paddy-buying season; it was therefore put off to the following season.

In March 2010 PrOpCom introduced eTranzact to Nokia to discuss the possibility of pre-installing eTranzact's mobile-banking software application on their handsets. Discussions reached a very high level within Nokia, and the best solution that could be offered was for eTranzact to upload the software to their online store (OVI) for easy access by Nokia handset owners. eTranzact never took action on this, and instead concentrated on developing a system that would not require users to have the software on their phone in order to carry out transactions.

PrOpCom also introduced eTranzact to Notore. The suggestion was to develop a payment and inventory tracking software solution that would enable Notore's distributors to make easy mobile payments for products while tracking their purchases and sales. Although the CEO of eTranzact spoke with the CEO of Notore and they agreed to collaborate, eTranzact again did not pursue this opportunity to its full conclusion. The most progress made with this eTranzact-Notore partnership was the installation of eTranzact's software on 150 handsets destined for Notore's village promoters. However, to the best of PrOpCom's knowledge, the software was never formally introduced to the village promoters who received the handsets, and no transactions have taken place with them.

In September 2010, PrOpCom helped eTranzact defend its proposal to the Central Bank for a mobile-payments operating license. Several aspects of PrOpCom's strategic advice, data and information provided were incorporated into the written proposal and evidence of the market's preparedness for mobile banking. At the same time, PrOpCom returned to the Olam pilot to see if it could re-engage with the company on payments for the 2010/11 rice harvests. The proposal was to use Notore agro-dealers as agents in locations around Benue and Taraba states. However, Olam was not ready to partner on this scheme, as they were facing serious financial issues with the plant, which was eventually shut down.



In November 2010, PrOpCom introduced Standard Microfinance Bank (SMFB) in Adamawa state to eTranzact as another potential partner who could help it reach the rural un-banked by using mobile banking services to extend loans and collect repayments. SMFB had already been considering setting up its own mobile-banking platform to reach more customers while reducing overhead (branchless banking), but as such a solution already existed in the marketplace, they were interested in seeing if there was a fit. SMFB invested more than N200,000 to incorporate eTranzact's product in handsets for 10 of its loan officers and to prepare them for training as early as December 2010.

Although the bank demonstrated readiness to incorporate mobile services into its business model, eTranzact did not act quickly on this opportunity, and it was March 2011 before the first representative of eTranzact made a visit to SMFB's office in Yola. By this time, however, SMFB's interest had waned. In April 2011 PrOpCom assessed its work and results with eTranzact and decided to terminate its 16-month partnership.

Pagatech

Toward the end of 2010 the Central Bank of Nigeria granted 16 "licenses-in-principle" to would-be mobile-payments operators. eTranzact was one the 16 licensees; Pagatech was another. PrOpCom was introduced to Pagatech (Paga) in February 2011. Discussions with Paga were encouraging, and the company appeared to greatly appreciate PrOpCom's contribution in terms of ideas rather than finance.

In March 2011, Paga embarked on a series of road shows to raise brand awareness and solicit new agents and users in Lagos, Anambra, and Kano states. During the Kano road shows, PrOpCom introduced the managing director of Paga to the Nike Girls Foundation and Notore's representatives in Kano. The relationship with Notore did not progress, as Paga insisted Notore sign a non-disclosure agreement before they could enter full discussions. This was not acceptable by Notore. The relationship with the Nike Foundation also didn't progress, as the foundation was still assessing its approach to the market. However Paga has told PrOpCom they are still in discussions with Nike and still optimistic that they will one day engage with Notore.

"PrOpCom has helped us to develop relationships in some areas previously uncharted by our company. We continue to nurture many of these relationships today. I expect that they will serve among the anchor points in our efforts to bringing safe and affordable financial services to millions of Nigerians."

—Tayo Oviolu,
Founder and CEO, Pagatech

PrOpCom also introduced Paga to SMFB in Yola as an alternative service provider that could meet the bank's mobile banking needs. Paga's relationship with SMFB was far more rewarding and appeared to be based on a stronger foundation of mutual respect than that between eTranzact and SMFB. Initial progress was rapid with SMFB poised to sign an agreement to cement the relationship. However in May 2010, the managing director of SMFB retired and his successor has been more reserved in his eagerness to pursue branchless banking.

8.4 Mobile Banking Intervention Grants

No grants were provided to partners as part of this intervention.



8.5 Mobile Banking Intervention Achievements

Support-Market Change

The rural mobile-banking market did not exist prior to PrOpCom's intervention; hence this work sought to create a market. The key support-market changes the mobile banking intervention sought to achieve in the establishment of this market were:

- Identification of suitable agents and aggregators in rural locations who can help users cash-in and cash-out of their mobile accounts without using a physical bank branch or ATM.
- Training and equipping of these agents to offer agent services to clients.
- Functioning technological platform/suitable product through which users can perform secure transactions.
- Existing and properly functioning mobile phone network in remote rural areas for users to complete successful transactions. (The cost of doing transactions is lowered when users are able to send messages via GPRS — General Packet Radio Service — rather than SMS — Short Message Service. However GPRS signal in some rural locations is erratic or non-existent, forcing users to use the more expensive SMS option.)

Key Market Changes Observed:

- The information gathered through PrOpCom's market survey to test rural demand for mobile banking services was able to convince potential aggregators, through which the switches could reach vast numbers of rural un-banked, of the viability of this market.
- At PrOpCom's recommendation, eTranzact dropped its transaction fee to N100 on the grounds that even the lowest fee of N200 was too high for the rural population. eTranzact also proposed introducing a N0 transaction fee for transactions between friends and family.
- At PrOpCom's suggestion, eTranzact developed a lighter version of the menu that would be less laden with options unnecessary for the rural target users.
- eTranzact trained 20 Olam Rice Mill farmers on the use and benefits of mobile-payments.
- eTranzact installed software on 150 dealers' phones through partnership with Notore.
- eTranzact trained and registered 37 SMFB staff and partners to serve as agents and testing the mobile-banking products in the rural areas of Yola as part of a pilot scheme.
- Pagatech successfully trained 14 of SMFB's staff to serve as Paga agents, who in turn will market the product to the bank's clients once the partnership has been formalised.

Core-Market Change

At the core-market level, PrOpCom aimed to see the establishment of mobile-payment users in rural areas who were (1) able to use their mobile phones to make and receive payments, and (2) storing their net cash on their phones rather than as cash. PrOpCom sought:

- Increased number of accounts held by previously un-banked individuals in rural areas.
- Increased volume and value of transactions carried out over mobile phones.
- Increased balance of cash saved on electronic accounts per user.

Key Market Changes Observed:



-
- eTranzact created 250 accounts for farmers through its partnership with Olam Rice Mill.
 - Pagatech achieved no core-market changes by the end of the programme.⁵¹
-

Poverty Reduction

At the poverty reduction level, PrOpCom sought the following changes:

- *Outreach.* The only poverty reduction indicator for this intervention was to achieve scale in the number of poor people in rural areas without access to formal financial services who would become active mobile-banking users. However, no impact was achieved on this indicator by the end of the programme.⁵²

8.6 Mobile Banking Intervention Sustainability and Risk

Discussions were continuing between both Paga and SMFB by the end of the programme. Paga had explicitly stated its intention to enter the Adamawa state market, with or without SMFB's full partnership, which marked a significant turnaround for them, as they initially were only engaged there at PrOpCom's insistence. There are several other mobile-payment providers on the horizon all gearing up to come to market with their offering (the CBN has apparently licensed another five). If any of them copy Pagatech's stated intention to serve the rural market, it would be evidence of replication.

The biggest risk to the growth and development of the mobile-banking sector lies with the Central Bank's licensing process. Until the end of 2010, operators in this market did so without specialised mobile-banking licenses. Since then, however, interested operators have received licenses-in-principle, but the CBN has delayed the process of converting these to full licenses despite PrOpCom's and its partners' efforts to address their concerns. As this licensing delay persists, the potential for income generation for the players is affected, and some of the licensees could abandon their efforts to enter the market.

⁵¹ Pagatech has 14,000 customers, mostly in Lagos, but very few of them are actually doing money transfer and they are not PrOpCom's targeted rural users.

⁵² *Jobs created:* Mobile banking was seen as a crosscutting intervention to complement the rice and fertiliser market interventions. On its own, it did not create jobs (except for the agents, many of whom should already have had commercial businesses). *Net income created:* While mobile banking would create an extra income stream for agents, most were not among PrOpCom's targeted poor beneficiaries. No extra income would be generated for the users of mobile payments, apart from the small cost savings from not having to travel across physical distances to make or take payments.



INTERVENTION: Rice Parboiler Summary

BACKGROUND

In Nigeria, imported rice sets the standard for rice quality; locally produced and processed rice, known for its lower quality, cannot compete in price with the imports. This puts a downward price pressure on all rice value chain actors. To improve the quality of local rice, incentives for quality needed to be improved throughout the value chain. Due to the financial and socio-cultural constraints of female parboilers in Kano and Adamawa states, they had limited incentives to improve the quality of their processing through new technology adoption or processing quality upgrades.

STRATEGY

Incentives to improve quality are higher if rice processors are able to take greater control over the steps in the value chain. PrOpCom aimed to provide such incentives for the women parboilers to improve the quality of their rice, increase their processing capacity, and empower them to more successfully harness their income potential. This was to be achieved through addressing the following constraints:

Technology: Upgrading the parboiling equipment and techniques available to female parboilers.

Finance: Providing female parboilers with access to loans in order to provide ownership of their rice (Kano) and increase the volume of rice purchased (Adamawa).

KEY INTERVENTION ACTIVITIES

- Technology provision: supported a parboiling equipment manufacturer to produce and distribute a modified drum and to train parboilers on efficient parboiling techniques and usage of the drums.
- Group support: organised female parboilers into groups and supported their account opening/loan application. Helped monitor loan repayment.
- Business management training: provided training to female parboilers in Kano to keep records of transactions and make profitable market choices. Provided NAEC training to bank staff in Adamawa to enable them to provide better advisory services to loan recipients.
- Bank support: supported banks in developing a customised loan product targeting the female parboilers. Helped bank promote loan product in target locations. Trained bank in Adamawa on new business model (storing/selling paddy to capitalise on seasonal price fluctuations).

KEY MARKET SYSTEM CHANGES

- Improved access to finance for female parboilers in Kano and Adamawa.
- Improved access to market (Kano) and choices for the parboilers (both locations).
- Parboilers changed business model (Adamawa).

KEY CHALLENGES AND RISKS

- Proving the parboiling business a viable one for lending money, and also proving female parboilers as credible borrowers.
- Supervision and management of this specific type of loan and client group by the bank.
- Adjusting the roles and responsibilities of the bank to provide business advisory services embedded along with the core services.

KEY LESSONS LEARNED

- Quality improvement: first, the processing improvements taught were more important than the technology itself in helping the women achieve higher quality parboiled paddy. Second, the quality improvements did not necessarily lead to higher incomes for the women. Access to finance, better business management knowledge, and development of women's bargaining capacity are more efficient for increasing women's incomes.
- Failure of the technology: after introducing the new improved parboiling drum by TADCO, 87 percent of women parboilers who bought the drum no longer used it. They felt it was a waste of their money and they preferred the new processing techniques they learned.
- Commercial vs. public bank: comparison of the Kano and Adamawa interventions revealed that the privately owned bank performed better than the government bank in responsiveness to market opportunities, decision-making speed, resource allocation, mobilization of staff, and supervision of loans. As a result, the repayment rate for the private bank was superior.
- Loan product and supervision: the group-lending mechanism works well when members perform homogeneous activities. It makes the training, education, management and supervision of the loans easier for the banks, and creates a best-practice sharing culture among the groups.
- Customer repayment: with the right direction and knowledge, appropriate access to resources, and timely supervision, the female parboilers were proven to be reliable borrowers. The bank needs to incorporate a close monitoring process into collections system to ensure timely repayments.



9. RICE PARBOILERS

9.1 Introduction to the Rice Parboiling Market

The Nigerian rice market has an estimated volume of 5 million MT per annum, with local production accounting for 3.4 million MT, and imports lying at 1.6 million MT.⁵³ Despite the prevalence of local rice in Nigerian markets, imported rice sets the standard for quality (in terms of cleanliness, whiteness, consistency, breakage and absence of stones or foreign matter), and thereby sets a price ceiling for the local rice, which is generally of a lower standard. (“Good quality” locally produced and processed rice sells for an average price of N135/kg⁵⁴ whereas imported rice fetches N180/kg.) This price ceiling puts downward price pressure on all actors in the local rice value chain.

One of the key determinants of end rice quality lies in the process of parboiling paddy rice. Of the rice purchased in urban markets across Nigeria, 87 percent is parboiled. Parboiling is the hydrothermal treatment of raw paddy before milling, which increases the processing efficiency as well as the nutritional value of the grains. Most parboiling in Nigeria is performed by poor market actors using traditional, outdated technologies comprising large drums and barrels. These drums are heated over open fires and produce poor parboiling quality, as the paddy lying closer to the flame at the bottom of the drum can easily become overcooked, causing it to be burned, discoloured, and to break more easily when milled. This low quality of parboiling has led to revenue erosion and loss of potential value for actors in the local rice value chain.

In Kano, a major hub of northern Nigeria’s domestic rice processing and trading, 99 percent of the state’s local rice parboilers are poor women who live in villages surrounding the rice-milling clusters. These women contract out their parboiling services for a small fee, earning them an average of N236 (roughly £1) per day. Furthermore, it is culturally unacceptable for women of this region to frequent the marketplaces, making them dependent on male family members to conduct their market-based transactions. Their lack of market access results in several constraints:

- Limited knowledge on techniques to improve quality of processing
- Limited access to finance to invest in quality improvements or increase quantity of paddy purchased
- Limited negotiation capacity
- Minimum knowledge on how to effectively and efficiently manage their business, e.g., controlling costs, savings and investments

In Adamawa state, another major rice processing state of Nigeria’s northern region, women do frequent the markets, and purchase, process, and sell their own paddy. However, their constraints are similar to the parboilers of Kano in that they lack the access to finance to increase their working capital and the knowledge that will enable them to upgrade their existing businesses.

9.2 Parboiler Intervention: Pro-Poor Rationale

PrOpCom viewed the parboiler market as a critical entry point for improving the quality of the local rice available on the market. Removing the constraints identified for the women would help them achieve quality upgrades in terms of cleanliness and whiteness, allowing them to charge N5-10 more per KG⁵⁵ for their parboiling work, thereby increasing their profits.

⁵³ USAID: Global Food Security Response Nigeria Rice Study, 2008.

⁵⁴ PrOpCom market assessment, Kano, Jan/Feb 2010.

⁵⁵ PrOpCom field survey, Kura-Karfi rice clusters, Kano state, Jan/Feb 2010.



Furthermore, PrOpCom believed that with greater access to finance, women would be able to buy and process more rice, which would spur greater demand for paddy, hence increasing the incentives for farmers to produce more local rice.

9.3 Parboiler Intervention Partner Summary

Nigerian Agricultural Cooperative and Rural Development Bank (NACRDB), Kano

Kano is the hub of rice processing in northern Nigeria, which made it a prime location for the parboiler interventions. To elevate the quality of local rice available in the Kano market, PrOpCom developed a two-pronged strategy. First, enhanced technologies were required to improve end product quality and to increase the safety factors for the parboilers in their work. Second, access to finance was necessary for the female parboilers, so that they could purchase the new technology. Providing the Kano women parboilers with loan capital also meant that they would then have the financial means to purchase and resell the paddy they parboiled, rather than being constrained to contracting out their services for a small fee.

PrOpCom approached a number of commercial banks in the area, but no bank was ready to consider the female parboilers as credible borrowers. PrOpCom then shifted its attention to the Nigerian Agricultural Cooperative and Rural Development Bank (NACRDB),⁵⁶ a public bank. As this bank had the mandate to provide support to poor people involved in agricultural sectors, they agreed to collaborate in the intervention.

PrOpCom also conducted a baseline assessment of the various types of technology available on the market. PrOpCom found a local fabricator — TADCO Nigeria Ltd. — that was willing to modify and supply an improved parboiling drum for the target group. PrOpCom provided cost-sharing support to TADCO for development of the modified parboiling drum, demonstration of the product, distribution, and providing training to the women on the use of the technology and improved processing practices.

PrOpCom then acted as a market intermediary for the women by helping them obtain credit from the NACRDB for the purchase of the new machines. PrOpCom further coordinated the women's formation into lending groups, so that they would be eligible for the NACRDB's community-lending scheme. Lastly, PrOpCom sensitised the parboilers to the potential income gains to be reaped by moving from a contract parboiling to a parboiler-trader business model. This included training on small business management skills through the NAEC curriculum, so that the women would be better able to manage the loan repayments and accounting of profits. Lastly, PrOpCom provided capacity building to the groups on group leadership.

The initial stage of the intervention proceeded successfully, with a pilot batch of parboilers opening bank accounts, completing the loan application process, and receiving loans from the bank. PrOpCom helped the bank in jointly supervising the parboilers' loan repayments, to ensure that the challenges were being properly handled and repayment was occurring. At this stage, the parboilers' repayment rates were very good, which convinced the bank to proceed with further loan disbursements to the remaining batches of applicants.

For the second batch of loan disbursements, PrOpCom expected that the bank would gradually take over the monitoring and supervision of its own loans. On the contrary, the bank started to have challenges in mobilizing its staff to help the women form the groups, to provide training on improved parboiling practices and accounts management, and to monitor the loans, all critical requirements for effective repayment. They failed to keep up with the supervision of their loans, resulting in a drastic downturn in the repayment rates. This then caused the bank to be

⁵⁶ In mid-2010, the bank changed its name to the Bank of Agriculture (BOA).



apprehensive about approving new loans and to cease promotion of the model to new target groups of parboilers.

Initially PrOpCom believed that the parboiling technology was the critical issue that would promote quality changes in the rice value chain. However, it became clear that the main challenge for the parboilers was the lack of access to finance to increase their working capital and purchase their own paddy. Access to working capital allowed the parboilers to increase the volume of rice they purchased, resulting in increased income for the target beneficiaries. It also challenged the status quo in demonstrating that, given the proper group-lending preconditions, female parboilers could prove an attractive and repaying customer base. Hence the second stage of the intervention shifted its emphasis more to creating access to finance for female parboilers. Following the success in Kano, the same model was replicated in Adamawa.

Standard Microfinance Bank, Adamawa

Adamawa is also a large rice producing state and supplies many adjacent states. Moreover, the state is home to a considerable number of female parboilers. The Standard Microfinance Bank (SMFB) in Adamawa was already involved in creating access to finance for rural people and was thinking of expanding its agricultural portfolio from 3 percent to 16 percent. Furthermore, the bank was interested in acquiring more female clients, and was looking at the rice sector as a potential sector to intervene. While SMFB was searching for someone with experience in this area who could provide it with technical support, the bank heard about PrOpCom's work in Kano and approached the programme for collaboration. SMFB was therefore an eager partner to PrOpCom due to its desire to expand its activities to this specific group of female parboilers.

The business model introduced to the women in the Adamawa pilot differed slightly from the Kano model. This pilot specifically allowed the beneficiaries to tackle the challenges of seasonal price volatility by buying higher volumes of paddy in harvest season (when prices are low) and processing the paddy in the rainy season when supplies are scarce in order to realise increased profit.

Upon commencement of the intervention, the bank was highly motivated to allocate the resources required to successfully complete the pilot. They also showed interest in learning more about the parboilers' community and the business, so that they could better serve them, thus bringing more business for the bank. PrOpCom first supported SMFB by providing capacity development to bank staff on collecting and analyzing market information to target the specific value chain and actors. Second, PrOpCom helped the bank in developing a customised loan product for a particular type of enterprise. Third, PrOpCom provided NAEC training to the bank's loan officers to better enable the bank staff to provide its own business advisory services to the target customers. Lastly, PrOpCom provided a cost-sharing grant to the bank to help it create awareness and promotion of its new loan product.

"PrOpCom has helped us look at our own customers in a different perspective — understanding their business better, listening to their challenges and customizing the support to mitigate those challenges. We have also learned how better we can identify opportunities in market and provide business advisory support so that our clients can excel their business and increase their income."

— Ahmed Iya,
Managing Director, Standard
Microfinance Bank

SMFB successfully promoted the new business model, exceeded the target number of clients within the pilot season, and was aiming to enter into new villages and triple its client base of parboilers in the next season.



9.4 Parboiler Intervention Grants

PrOpCom Parboiling Grants

| Grant No. | Period of Performance | Title of Grant | Name of Grantee | Value of Grant (N) | Amount Paid (N) |
|--------------------------------------|-----------------------|---|--------------------|--------------------|------------------|
| SIF-01 | Jun 2007 - Aug 2007 | Development & Fabrication of parboiling equipment | TADCO | 1,857,817 | 1,857,817 |
| SIF-02 | Oct - Nov 2007 | Increasing parboiling capacity and production of branded rice | KNAFES Enterprises | 1,246,100 | 1,226,100 |
| Mudu Fund-17 | Oct 2010 – Dec 2010 | Advocacy and Promotion of Parboilers Loan Product | SMFB | 257,075 | 31,000 |
| Total Grant Value Awarded (N) | | | | | 3,314,917 |

SIF 01: TADCO Parboiling Drums

The grant agreement was signed with TADCO with the objective that TADCO will design and produce the improved parboiling drums which will be introduced to the women parboilers who will receive the loan from NACRDB. PrOpCom provided 70 percent of the total cost of production, with TADCO providing the remaining 30 percent. PrOpCom awarded the exact amount as mentioned in the grant agreement without any variance.

SIF 02: KNAFES Enterprises

The grant agreement was signed with KNAFES Enterprise, which was contracted to provide training to the women parboilers in the selected areas in Kano on increasing their parboiling capacity, improving the process to produce better quality rice. The reason for the variance in the grant award and the final spending was that all the training sessions were not conducted.

Mudu Fund 17: Standard Microfinance Bank

The grant agreement was with Standard Microfinance Bank for planned promotional and sensitisation activities to create awareness among the potential borrowers in the target locations regarding their new loan product for women parboilers. PrOpCom agreed to share 50 percent of the promotional costs at per actual basis. Finally, not all planned activities were executed, and the bank only claimed 50 percent of the costs of executed activities, hence there is the variance between the agreed amount and the actual spending. Payments were based on actual successful demos.

9.5 Parboiler Intervention Achievements

Support-Market Change

PrOpCom aimed to see the following evidence of change in the parboilers' support market in Kano and Adamawa, respectively:



Kano:

- NACRDB develops loan products for parboiler groups so that they may purchase TADCO technology and have working capital for paddy purchase
- TADCO develops improved drum
- Training provided to women by TADCO on improved processing practices for higher quality rice
- NAEC training provided to women on improved business management
- Market linkage supports provided to women, so that they may begin trading rather than contract-parboiling

Adamawa:

- SMFB develops and markets new loan product to targeted groups of parboilers
- SMFB commences verification and assists with account opening processes
- NAEC training provided to SMFB loan officers
- Loan officers organise parboilers into groups and loan officers explain how to implement new business model
- SMFB opens accounts for parboilers to enable loan disbursement process

Key Market Changes Observed:

Kano:

- NACRDB provided loan of N46 million to women parboilers.
- TADCO developed 50 improved drums.
- Business management training provided to the leaders of 44 women groups.
- TADCO trained 927 women.
- 387 women invested the borrowed amount into their own business and turned to trading from contract parboilers.
- 169 women who learned the better techniques of processing have improved their parboiling process and charged premium price for their contract parboiling.
- Social / behavior changes or market linkages?

Adamawa:

- SMFB develops 'Gumi' loan product. Conducts market verification.
- Conducts market promotion to 4,000 people in one market area.
- NAEC training provided to 6 loan officers.
- Loan officers trained 115 parboilers on the new business model of 'buy-now-and-process-later'.
- SMFB opens accounts for 115 women who started saving through those accounts.

Core-Market Change

At the core market level, PrOpCom aimed to see the following evidence of change among both parboilers and farmers:

- Parboilers apply for and receive loan capital
- Females purchase TADCO technology and invest in trading
- Parboilers adopt improved processing practices. Quality increases observed.



- Parboilers buy and store paddy bought at lower price in dry season and sell it in high-price season (as per business model)
- Parboilers copy improved business model and buy more paddy
- Farmers respond to demand from parboilers and cultivate more paddy rice

Key Market Changes Observed:

Kano:

- 533 female parboilers received NACRDB loan (direct beneficiaries). After seeing the success of the direct beneficiaries, an additional 60 parboilers applied for and received a loan (indirect beneficiaries). All parboilers who received the loan started trading their own parboiled rice.
- 387 parboilers bought the TADCO drum. Of those, only 50 were still using the drum by February 2010.
- 387 of the 533 parboilers who received the loan improved the quality⁵⁷ of their processed rice and increased the volume processed. This resulted in 23,220 MT of increased volume of improved quality processed rice.
- 146 of the 533 parboilers only increased the volume. This resulted in 8,760MT of increased volume of processed rice without any change in quality.
- 169 parboilers who learned about improved practice did not apply for loan and continued to contract-parboil, but adopted the new practices to improve the quality of rice processed. This resulted in 7,605MT of rice processed with improved quality through contract parboiling

Adamawa:

- 115 parboilers in 19 groups received SMFB's 'Gumi' loan product. This was 15 more than SMFB's target for the season.
- 105 parboilers bought and stored paddy to process later; on average each parboiler processed an additional 237 bags of paddy.
- 10 parboilers invested their entire loan amount in the business did not store paddy; on average each parboiler processed an additional 320 bags of paddy.

Both:

- 72,128 farmers cultivated an additional 23,082 ha of land to supply to the direct beneficiary parboilers the additional 50,778 MT of paddy they were processing.
- 19,650 farmers cultivated an additional 6,288 ha of land to supply to the indirect beneficiary parboilers the additional 13,834MT paddy they were processing.
- Parboilers have increased their investments in paddy by over 70 percent.

Poverty Reduction

At the poverty reduction level, PrOpCom aimed to see the following impacts:

- Additional net income generated for farmers and parboilers
 - Parboilers' net income increase from sale of increased volume of processed rice
 - Parboilers' net income from the sale of processing the stored paddy (Adamawa)
 - Farmers' net income increase due to additional paddy demand from parboilers
 - Income of labourers hired by farmers
- Additional employment generated for labourers

⁵⁷ PrOpCom field assessments, Dec. 2009 and Feb. 2010. The improvement in quality is measured through observation (comparatively clean and white rice) and change in the price the women parboilers received per unit.



Impacts

Scale:

- Direct outreach: 72,945 (parboilers: 817; farmers: 72,128)⁵⁸
- Indirect outreach: 20,055 (parboilers: 405; farmers: 19,650)⁵⁹
- **Total outreach: 93,000**

Additional jobs created:

- Additional laborers hired by direct beneficiaries: 11,878 (Kano 11,221; Adamawa 657)
- Additional laborers hired by indirect beneficiaries: 3,236 (Kano 1,263; Adamawa 1,973)
- **Total jobs created: 15,114**

Net income increase:

- Direct beneficiaries: N2,444,060,597⁶⁰
- Indirect beneficiaries: N1,108,956,150⁶¹
- **Total net income increase: N3,695,158,991**

Notes on impact:

- Adamawa parboilers who only increased the processing capacity (and did not store any paddy) earned an additional income of N371,994 in one season.
- Adamawa parboilers who stored paddy and processed later earned an additional income of N472,414 in one season.
- Parboilers in Kano increased their investments in assets such as livestock, land, farm equipment, poultry, and savings by 58%--attributable to PrOpCom's intervention.



9.6 Parboiler Intervention Sustainability and Risk

The sustainability of the parboiler intervention is considered to be medium. On the one hand the NACRDB in Kano clearly did not continue with the small loan program. SFMB, however, has shown interest in continuing with the model, but has recently undergone a change in the top management, which has delayed progress. The new management expressed the desire to expand the model to commodities other than rice.

The signals of sustainability in this intervention include:

- *Well-aligned incentives:* The loan product has been a profitable model for SMFB due to the high repayment rate of the beneficiaries. The female parboilers have a strong incentive to take out further loans due to the income increases they enjoyed.
- *Extension of model:* Standard Microfinance Bank has started exploring opportunities for loan products that cater to clients other than the rice parboilers. Sustainability can be deduced as the partner may extend the scale of outreach to include other markets.

⁵⁸ Kano parboilers: 702; Adamawa parboilers: 115; Kano farmers: 68,139; Adamawa farmers: 3,989.

⁵⁹ Kano parboilers: 60; Adamawa parboilers: 345; Kano farmers: 7,670; Adamawa farmers: 11,980.

⁶⁰ Parboilers: 464,171,631; farmers: N689,485,852; labourers: N1,282,734,154.

⁶¹ Parboilers: N363,469,708; farmers: N182,948,334; labourers: N562,538,108.



Signs of crowding-in of partners include:

1. A microfinance bank in Niger has expressed its desire to replicate the model. They have approached PrOpCom to request its collaboration in developing a product targeting the rice value chain and specifically the large number of female parboilers present in their area. PrOpCom decided to provide the technical support to the bank in understanding the value chain, its actors and the right market opportunity to act upon.
2. A microfinance bank in Kaduna is interested to work with the parboilers but has not decided to start right now. We have shared our technical proposal and the business to support them in replicating the model.
3. PrOpCom will share the success story of this intervention in platforms like the Association of Microfinance Institutes, etc. This is anticipated to encourage further banks to adopt similar targeted financial products.

The risks to the sustainability of impact include:

| Risk | Probability | Mitigation |
|--|-------------|---|
| Crowding-in not happening | High | PrOpCom shared the business case with other microfinance banks. Three banks showed interest, but PrOpCom ended before bank uptake of the model could be achieved. A video was produced to facilitate communication beyond PrOpCom's end. |
| Lack of commitment to scale up model by SMFB's new Managing Director | High | PrOpCom maintained contact with the new management of the bank on the scale-up plans until the end of the program. |
| The partners need strong human resource development tool within their systems, as the model requires a close supervision of customers' performance and repayments. | High | The staff training on the understanding of the business model and delivery of advocacy service was the integral part of the replicated models and it is expected that the new banks will learn from the existing banks and will develop their personnel's capacity for better monitoring and supervision support. |
| It is not a 'one size fits all' business model. It requires accommodating the local context, the business understanding of the value chain and assessment of market opportunities to be successful. Partners may find it difficult to pick up in a short run if they do not have enough resources to put together. | Medium | The model has been replicated in Adamawa and Niger where PrOpCom has involved the banks from the market assessment to the intervention design process. It allowed the banks to understand the customer and design the loan according to their need. It is expected that when other banks will replicate the model they will follow the same process based on the experience of the new banks, hence they will learn to incorporate the need of the local context. |



INTRODUCTION TO NON-KEY INTERVENTIONS

PrOpCom defines its non-key interventions as those on which it expended considerable time and/or resources, but terminated due to unsatisfactory progress toward programmatic goals.

10. COMMODITY MARKETS

10.1 Rice Markets

Both the initial design and the inception phase programme studies underlined the importance of rice as a major source of economic growth and poverty reduction in Nigeria⁶². Based on this evidence, DFID/Nigeria requested Chemonics to focus only on rice when it submitted a revised version of the Inception Phase report. This response⁶³ provided greater detail of the social-political economy of the rice sector and how the programme sought to seek systemic change in the rice sector. This systemic change was to be built around linking smallholders and SMSEs within selected rice production areas to the market demand, driven by large industrial millers in the area seeking raw material. The programme initially envisioned that it would work with Olam in activating its rice operation in the Makurdi area and also support the rice-processing centre in Abakaliki. As a result of the long delay in getting final approval from DFID to launch the implementation phase, the on-going USAID-funded MARKETS project was able to begin working with Olam in Makurdi before the PrOpCom activity could get started. The rice-processing centre in Abakaliki was never able to organise itself well enough for programme interventions. Because of these events, once the programme's implementation finally got underway in April 2006, programme staff had to rethink what it would do in the rice sector. A series of initial studies⁶⁴ led the programme to investigate starting a rice intervention in the Dass region of Bauchi State. Three months later the programme stopped its investigations, as it could not find a workable partner in the Dass region. During this same time the programme was also looking at two other possible rice development interventions. One was in the southwest working with the niche Ofada rice market and the other was in the active rice production and processing area in Kura just south of Kano.

10.1.1 Ofada Rice Interventions

In September 2006 PrOpCom facilitated an initial stakeholder meeting in Abeokuta with representatives of the Ofada rice value chain to broach the idea of the programme working with the sector. The following month the Ofada intervention started. The basic concept of this intervention was to use the Ofada rice value chain as a model for potential upgrading that, if successful, could be replicated in a number of other regional rice markets (e.g., Abakaliki, Dass, Kura). Ofada rice is a unique ethnic food linked to ceremonies and other special occasions of the Yoruba people. It had a strong local market in the southwest and urban areas in Nigeria⁶⁵ as well as important demand overseas in the Yoruba Diaspora⁶⁶. A number of

⁶² PrOpCom Inception Phase Report, Annex 3, Rice Report, May 2005.

⁶³ Response to PrOpCom Inception Review, September 2005.

⁶⁴ Ali Garba, Investigation of Rice commodity Chain in Dass/ Bauchi Area, June 2006; Fatima Tahir, Institutional Mapping and Assessment Dass Area, June 2006.

⁶⁵ Project Delicacy II: Demand Study of Ofada Rice, April 2007.

⁶⁶ Diaspora Demand Study of Ofada Rice, August 2007.



activities took place to upgrade the Ofada value chain⁶⁷ ranging from institutional support of the local chapter of RIFAN, undertaking study on the control of bird damage, support for improved packaging and marketing, and support to increase capacity of improved milling.

The Ofada rice intervention proved to be an interesting example of many of the issues related to implementation of a M4P programme and PrOpCom's efforts to find the best way to achieve its M4P objectives. For over four years the programme put significant resources toward making the Ofada rice intervention work. The Ofada rice sector has a limited geography and market. The value chain represented all of the various issues seen in other agricultural value chains in Nigeria. The Ofada rice value chain is segmented and has very high transaction costs along the market chain. Ofada rice also serves as the basis for the livelihoods of several hundred thousand people in five of Nigeria's southwest states (Ekiti, Lagos, Ogun, Osun, and Oyo). The programme's focus was primarily in Ogun state where tradition said Ofada rice originated. The programme took a broad value chain perspective of how to upgrade the sector. It also sought to be inclusive and facilitative both in intervention design and implementation. PrOpCom worked with the local Ogun chapter of the Rice Farmer's Association of Nigeria (RIFAN) as its ultimate implementation organisation for activities related to production and later processing. The programme facilitated six extensive training modules over a period of two years to build the capacity of RIFAN to undertake this role. The programme also worked with commercial marketers of Ofada rice, mostly based in Lagos, on upgrading packaging and distribution of Ofada rice in supermarkets in urban areas of the country. In addition, the programme also targeted women marketers, retailers, and caterers.

While the programme achieved much individual success through this effort both the overall impact and the ownership of the intervention was not successful. Positive achievement of the intervention include such examples as the number of professional marketers of Ofada rice increasing from two to over 11 with a greater recognition of Ofada rice being seen in the rice market in Nigeria. Individual marketer and caterers also provide significant success stories for the programme. Unfortunately, the Ofada value chain as a whole was unable to respond in a significant way to the programme's efforts. While the programme made a great effort to assess and evaluate the programme's partners such as RIFAN, corruption and traditional rent seeking undermined the problem's effectiveness and impact. Support to facilitate introduction of improved rice mills through local partners turned into political patronage. Distrust and infighting among partners reduced market transparency and increased transaction cost. Most importantly, only selected, mostly commercial, stakeholders took advantage of the programme's facilitation activities to improve their business and their livelihoods. Many of the other Ofada intervention stakeholders continue to seek out the programme only as a free source of goods and services and did not take the necessary ownership and related investments to build upon those resources themselves to create the systemic change in the Ofada rice value chain the programme was seeking. In January 2010 the programme ended the Ofada rice intervention.

⁶⁷ Historical Review of Ofada Rice Value Chain Intervention Activities, December 2009.



While the Ofada rice intervention was not generally successful, lessons learnt from this experience provided much of the impetus for the shift in programme intervention approach seen in phase 3. Among those lessons is that working in a facilitative way with a broad base of the value chain provides the programme credibility and trustworthiness among a wide group of stakeholders, but it does not necessarily result in creating systemic change in that value chain. Systemic change in a volatile environment such as Nigeria requires one or more champions for that change to step forward that has the required motivation and resources, both economic and political, to use programme resources to catalyse this change. The programme had hoped that RIFAN and/or the commercial marketers of Ofada rice would play that role, but neither could. In addition, by trying to be responsive to the various needs of the value chain, the programme dissipated much of its effort resulting in less than optimal results. A more focused effort such as was done with tractors and fertiliser with larger, better-resourced partners proved to be a more fruitful approach in the Nigerian socio-political environment.

10.1.2 Ofada Rice Grant (terminated)

PrOpCom Ofada Rice Grant

| Grant No. | Period of Performance | Title of Grant | Name of Grantee | Value of Grant (N) | Amount Paid (N) |
|--------------------------------------|-----------------------|---|---------------------------|--------------------|-----------------|
| Mudu Fund-07 | Aug 2009 to Mar 2010 | Farmer Learning & Market Linkages Support | Ofada VeeTee Rice Limited | 24,020,000 | 0 |
| Total Grant Value Awarded (N) | | | | | 0 |

Mudu Fund 07

VeeTee Rice Mill planned to create direct supply contracts with some farmers in some states. However, the many risks and learning steps in establishing such a system in Nigeria caused VeeTee to seek partnership with a market facilitator that might offer process guidance, assistance in developing useful political and business partnerships, and finance. The opportunity was to move from small-scale to large-scale investment in the rice market; to support businesses helping each other rather than just government helping 'poor farmers'; and to create an alternative model to the dominant one of small-scale, distributed, under-financed, and inefficient processing that does not effectively compete with imported rice. In summary, this is an opportunity to put Nigeria in a position to compete with imported rice. PrOpCom agreed to VeeTee's request for partnership. This partnership comprised mainly technical support, and some grant funds.

PrOpCom's support was designed to establish contracts with farmers in Ogun, Osun, Lagos, Imo, Oyo, Kwara and Enugu states with a target of planting 2,000 - 5,000 hectares of paddy in each state during the 2009 rainy season; that would be a total of 14,000 - 35,000 hectares. It was estimated that in 2009, 10,000 farmers would participate in this programme. This



support would double incomes from rice farming, and would establish long-lasting commercial relationships through which farmers would be able to progress further from semi-commercial to fully commercial. Such linkages and progression would reduce farmers' vulnerability. Farmers' combined increases in net income would be N500 million (£2 million). However, the contract was terminated at the request of the grantee, who refunded the initial advance and indicated that it was not capable of executing the agreement.

PrOpCom disbursed many more grants in the Ofada rice intervention, but they came out of the Facilitation Fund not the Mudu fund. Among these were the contract to firms to support RIFAN to build the milling stations (which did not work out), the contract develop a leasing program for the mills, all the contracts for training, and bird studies, and so forth.

10.1.3 Kano Rice Interventions

The Kano rice interventions proved to be more successful. The intervention began in November 2006 in the Kura area and looked to improve the quality of local rice in the market. Evidence has shown that local rice could be competitive in the market with imported rice if it had a better quality⁶⁸. One of the first steps in this effort was to upgrade local rice parboiling, an activity primarily done by women. As with the Ofada activity, a stakeholder process was initially used to bring together the whole of the Kano-Kura rice value chain market actors including Kano state government officials. As the programme worked with upgrading local rice parboiling, it spun off other interventions. These interventions included use of improved milling equipment and use of de-stoners to improve local rice quality. Eventually this led to work with rice marketing at the retail and wholesale level in the Kano area.

The work to upgrade rice parboiling initially focused on improving the traditional rice parboiling equipment and the institutional factor to increase use of this improved equipment including upgrading the capacity and capability of local fabricators of improved traditional parboilers. As the intervention proceeded, however, the programme came to understand that the most important pro-poor activity in the parboiling area was providing women funds through the local banking system to not only purchase an improved parboiler but to purchase paddy to parboil, thus shifting their status from being a contract parboiler to being a rice traders.

As local producers, processors, and marketer became more aware of the value of higher quality local rice, interest in de-stoning equipment grew. The programme found that use of de-stoning equipment could be profitable⁶⁹ and encourage more widespread use of this equipment. Some local processors did invest in de-stoning equipment but found it difficult to get the higher price for the extra quality of clean rice in the market. This led to an intervention to support the marketing of improved local rice seeking to obtain a higher greater price for better quality local rice and creating quality differentiation in the local rice market.

⁶⁸ Demand and Supply Study of Domestic and Imported Rice in Kano Area, July 2007.

⁶⁹ Financial Analysis of Improved De-stoning Technology, March 2008.



Overall the Kano rice effort provided the programme greater results than the programme's efforts with Ofada rice. The reason for this was greater engagement and ownership taken by the stakeholders of the programme's activities in the Kano region. The programme was able to identify and work with stakeholder that took advantage of the programme's facilitative activities to not only improve their own livelihoods and business but also increase income and jobs in the local area. For example, a social-network analysis of the women parboilers found significant improvement in the lot of women who were able to use programme activities to improve their lives⁷⁰. The concept of a local rice value chain became a reality not only to those in the value chain itself but state government officials who had previously thought only in terms of subsidies for rice production not the entire chain itself. A number of new investments were made by stakeholders in the Kura-Kano rice value chain directly attributed to the programme's activities including new milling and de-stoning equipment, better packaging, and organisations of local business groups. As a result of PrOpCom's work in the Kano rice value chain it gain both the awareness and the credibility with state government that lead to state governments request that PrOpCom work with it on significant policy changes in first the rice, and later the general agricultural, policy of the state (see Section 6).

Yet with all of these achievements, the programme was not able (outside of certain pockets) to create the incentive structures and systemic change that would lead to widespread crowding-in of its Kano rice activities. The widespread use of de-stoners and other quality production did not occur. The large traditional millers, however, have recognised the potential large market for improved local rice. In response, they have made substantial investments in new industrial parboiling and milling equipment in the region. It is unlikely, however, that this will have a significant pro-poor impact on the country.

10.2 Soya

As part of the agreement to allow the programme to move to implementation, DFID requested that a second commodity be added to rice as a focus of the programme's interventions. A number of commodity chains had been looked at in the inception phase including cassava⁷¹, livestock⁷², and cashew⁷³. Studies of soya were also undertaken by the programme's commodity specialist. Of all of these evaluations of a potential second commodity soya seemed the most promising. Cassava was the only other actively considered alternate commodity, but the programme considered the cassava market as too volatile and diverse to allow easy access of an M4P intervention. In February 2007, a recommendation was sent to DFID to work with soya as the second commodity for the programme and in March 2007 the soya interventions began.

The soya value chain in Nigeria has a relatively unique structure⁷⁴. Production of soya is primarily in the northeast and middle-belt states while processing is

⁷⁰ Eva Schiffer and Jennifer Hauck, Social-network Analysis of Kano-Kura Women Parboilers.

⁷¹ Sub-sector Strategic Framework Detailed Cassava Report, April 2006.

⁷² Dick Cook, Using Livestock and Associated Product Markets to Demonstrate MMW4P in Nigeria, May 2006.

⁷³ P. Nugawela and Roland Oroh, Cashew Sub-sector Strategic Framework, April 2006.

⁷⁴ Mapping of Soya Production and Processing Areas, September 2008.



primarily in Kano and Kaduna. Consumption of soya products is primarily in the south and southwest of the country (Lagos). The programme's initial area of focus in the soya sector was on reduction of transaction costs in the value chain. Much of this dealt with the upgrading of the delivery of clean soya beans to the processors and establishment of better quality soya-based products to compete in the marketplace. A large number of institutional factors were blocking achievement of these activities and the programme sought to find stakeholders in the value chain to work with to reduce these negative institutional factors. Initially the programme had high expectation that the Oilseed Processor Association (OSPAN) would be such a partner but after the charismatic leader of the association left, OSPAN was not longer a viable organisation. Efforts were made to get a better understanding of the complex relationship of producers and traders in Benue state the largest producers of soya⁷⁵. From the result of this study and programme experience, there appeared little politically viable options to address questions of adulteration of soya in the region.

With little progress on improving soya collection for use by large oilseed processors nor of addressing quality issues with these processors, the programme tried to find a means to work at a lower level in the soya value chain with women who did artisanal processing of soya to make a local food supplement/spice known as *daddawa*. The programme again found it could not identify a viable partner around which it could facilitate upgrading of this indigenous processing operation. In January 2009 the soya intervention was ended. At this point, the programme was moving into Phase 3 mode and no further strictly commodity-based interventions were developed as attention turned to higher impact service market interventions.

⁷⁵ Simon Food, Political Economy of Soya in Benue State (unpublished), September 2008.



11. CROSSCUTTING INTERVENTIONS

11.1 Nigerian Agricultural Enterprise Curriculum

PrOpCom partnered with USAID's MARKETS and GTZ's EoPSD to develop a Training-of-Trainers (TOT) programme for potential trainers of farmers and service providers. The training used a curriculum developed by Making Cents specifically for the Nigerian market called The Nigerian Agricultural Enterprise Curriculum. This was a crosscutting intervention, which could be used by participants in any other interventions such as fertiliser, parboiling, or tractors.

Far too often, the "activity" of farming is not approached as a "business" but as a "means of sustenance", regardless of the fact that agriculture contributes 40 percent to the nation's GDP and keeps 60 percent of the population. The NAEC was designed to train Nigerian farmers, processors and agro-dealers on how to adopt a more business-minded approach to their work by keeping simple but effective records of their transactions (business and household expenses and sales) and using this information to plan for future year's operations. The logic behind the NAEC is based on the fact that with the proper use of these records, farmers can avoid shocks by anticipating payments and planning the best time to sell produce and generate income.

The NAEC was designed for an audience with minimal literacy (primary school education) and to be delivered in an informal setting (under a tree if necessary). This participatory course entails simulations that bring the theoretical aspects of the curriculum to life. Farmers, processors, and agro-dealers are taught key business principles: keeping farm business records, business planning, cost-benefit calculations, savings and credits, cash flow basics, purchasing decisions, farm business cycles, value chain and market analyses, and information on business groups, associations and cooperatives that allow farmers to save collectively, access formal finance, and exchange ideas more effectively.

Thirty trainers, five of whom were certified as master trainers, were trained between November 2007 and May 2008. Between March and May 2008 PrOpCom and its partners trained around 400 farmers and processors. These trainers were then certified and were strongly supported and encouraged to actively market their training services to the Nigerian market: government agencies, input suppliers, banks and farmer associations. All of these marketing efforts were unsuccessful as many people simply did not value the training of farmers and processors on business skills and training services as a whole should be delivered freely, paid for by donor organisations.

Nevertheless PrOpCom organised the training of agro-dealers in partnership with Notore Chemical Industries Ltd. because agro-dealers were seen as a key source of information for farmers. PrOpCom believed their training would lead to information and business skills being shared with their clients and peers. These training sessions took place in 13 states between June and August 2009. In total 414 agro-dealers were trained; Notore went on to incorporate elements of the NAEC into subsequent training programmes for its village promoters. The cost of the training was equally shared between both partners. Notore has expressed a strong desire to see the NAEC incorporated into the development of its distribution system. The company proposes in 2012 to train all levels of its



distribution network on the NAEC and eventually have the most receptive of these become trainers themselves with the capacity to train farmers directly. They have set a tentative target of training 10,000 farmers in the first year.

PrOpCom NAEC Grant Award

| Grant No. | Period of Performance | Title of Grant | Name of Grantee | Value of Grant (N) | Amount Paid (N) |
|--------------------------------------|-----------------------|----------------|-------------------------------------|--------------------|-----------------|
| Mudu Fund-10A | Oct 2009 – Dec 2009 | NAEC Training | Agricultural Business Concepts Ltd. | 100,000 | 100,000 |
| Total Grant Value Awarded (N) | | | | | 100,000 |

Based on the successful training with Notore, in October 2009 PrOpCom awarded a grant for a large-scale NAEC training effort. Phase 1 specified that the grantee was to identify 5,000 entrepreneurs (farmers, parboilers, and millers) in the three clusters of Kano, Middle Belt, and the South-West who would benefit from the NAEC training. Upon submission of the compiled list to PrOpCom, plus commitment letters from potential third-party sponsors of the training, PrOpCom would give approval for the commencement of Phase 2 to conduct the training.

Most of the potential sponsors contacted hailed the innovativeness of NAEC and did not doubt its value. Yet, third parties were reticent to sponsor the program, citing “the global economic meltdown, which had imposed budget constraints on many firms and organisations.” Due to the slow uptake of the curriculum by the Nigerian market, PrOpCom ended this intervention in March 2010 after 30 months of efforts. The programme did, however, continue to monitor its impact.

Monitoring Results

As a result of the training received, farmers now keep records of their inputs and sales and also make plans for the year ahead. Our surveys found that all farmers are now keeping records, with all of them writing these down, compared with 21 percent before the training. Not only are these records more likely to be written down than before, but 97 percent of respondents use these to make plans, compared with 54 percent before the training.

From their records, it was also seen that *all* the farmers surveyed were strategically timing the purchase of their inputs – purchasing these in the period immediately after harvest rather than leaving it until the last minute, as was the practice with half of the respondents before training. As a result 90 percent of farmers reported noticing a reduction in the price of seeds of between 40 percent and 50 percent for their inputs as a result of this change in timing.

Also evident from their records, farmers are being increasingly strategic in the timing of their sales with 83 percent choosing to wait a few months after harvest to sell their produce as compared with the 79 percent who previously sold produce immediately after harvest. As a result of this change in selling times, farmers noticed a significant increase in the price they receive for their produce of 35 percent on average for all their crops. All the farmers surveyed attributed this fact to not selling immediately after harvest during the glut.



Average Price Received for Crops (per 100kg bag)

| Time of Sale | Crop 1 (N) | Crop 2 (N) | Crop 3 (N) | Average(N) |
|----------------------------|------------|------------|------------|------------|
| At Harvest Time | 2,041 | 1,844 | 822 | 1,569 |
| A Few Months After Harvest | 2,721 | 2,290 | 1,320 | 2,110 |
| % Change | 33% | 24% | 61% | 35% |

Due to their lower input prices and higher sales prices, all farmers reported making a profit in the last farming season: on average for their three main crops, the respondents made a profit of N151,890 in 2008 with an average profit margin of 38 percent. In 2009, their profit margins rose to 46 percent on average and in 2010 profit margins rose to 54 percent.

Average Profit Margins

| Year | Average Cost of Inputs (N) | Average Income (N) | Average Profits (N) | Profit Margin (Profit/Income) |
|------|----------------------------|--------------------|---------------------|-------------------------------|
| 2008 | 248,377 | 400,267 | 151,890 | 38% |
| 2009 | 304,659 | 568,683 | 264,023 | 46% |
| 2010 | 362,378 | 797,857 | 435,479 | 55% |

In addition to increased incomes and profits, 100 percent of farmers are saving as instructed in the NAEC training. They are also choosing to save in more “formal” ways especially in savings clubs, commercial banks and cooperatives. There is little change in the percentage of farmers choosing to store cash at home although a significant portion (65 percent) now choose to store/save their own produce for future sales and consider this a store of their wealth. And with increased savings, and written records, more farmers are taking up loans as well as financing their operations through their own savings.

Some rice processors were also trained on the NAEC in 2008/9 and we measured changes in their behaviour and practices. Almost all respondents (95 percent) claim to keep records up significantly from 13 percent in the baseline. The processors surveyed also reported an increase in their on-season monthly turnover and income in 2010 compared to 2008 and 2009. And with regards to their spending the processors appear to have remarkably changed their purchasing habits as now 74 percent of respondents say they purchase their inputs during the harvest rather than waiting until later. As a result 80 percent when asked said they noticed a reduction in the cost of their inputs as a result of this shift in purchasing times.

The biggest group to be trained however was the Notore agro-dealers trained in 2009. The main rationale behind training this group was in order for them to share their knowledge with farmers who they sell input to. Our surveys found that on average each agro-dealer shared their NAEC skills with 11 other agro-dealers and 78 farmers. One respondent even claims to have shared knowledge with 600 farmers and another with 50 agro-dealers. Hence the training of agro-dealers is an effective tool in the indirect dissemination of training skills among farmers and other agro-dealers.



PROGRAMME MANAGEMENT

Photographer: Unknown | PrOpCom has worked with political leaders, businesses, and rice farmers to develop more inclusive rice policies in Kano state that will lead to greater investment and improve rice yields. Sabiu Auwal (left), a former commodity specialist on PrOpCom staff, is now the Special Assistant to the Honorable Minister of State for Agriculture and Rural Development of Nigeria.



INTRODUCTION

Throughout the life of the programme, PrOpCom's programme management has sought to provide reliable support to technical interventions and flexibly respond to Nigeria's internal challenges and programme opportunities by providing qualified staff, setting up systems to handle the demands of the programme, and creating an organisational culture where individuals felt responsible, empowered, and accountable for their performance and consequent results.

From a programme management perspective, PrOpCom faced challenges in finance, grants and contracts, administration, and management. These challenges included operating in a cash-based economy, poor infrastructure (roads, utilities, IT), partners' weak institutional capacity to write proposals and manage grant agreements, security threats, and the time required to accomplish technical and administrative tasks. Despite these challenges, PrOpCom constantly sought to provide the most value for money in its expenditures.

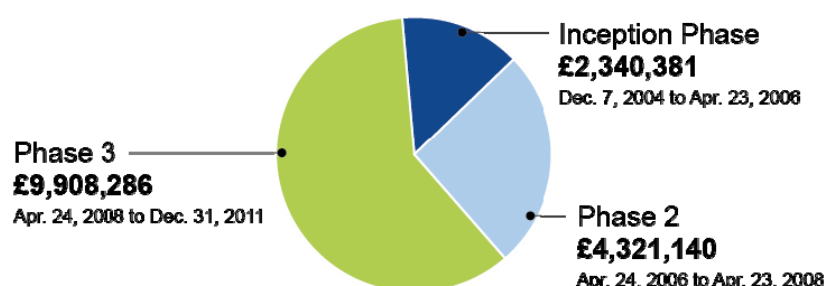
In addition, PrOpCom had to invest significant resources to professionally develop its staff so that they could perform at the level and range of skills needed, in particular the catalytic intervention managers. In formal and informal settings, staff training included training in the M4P methodology at the Springfield Centre for Business in Development, as well as developing quantitative analysis, planning, monitoring, writing, interpersonal, and representation skills.

12. FINANCE

12.1 General

PrOpCom's total contract value at the end of the programme was £16,569,807, and was divided into three phases: Inception (Phase 1), Phase 2, and Phase 3 (which included an extension worth £1,770,143 from 1 May 2011 to 30 December 2011), each with its own budget (Figure 8).

Figure 8. Total Cost



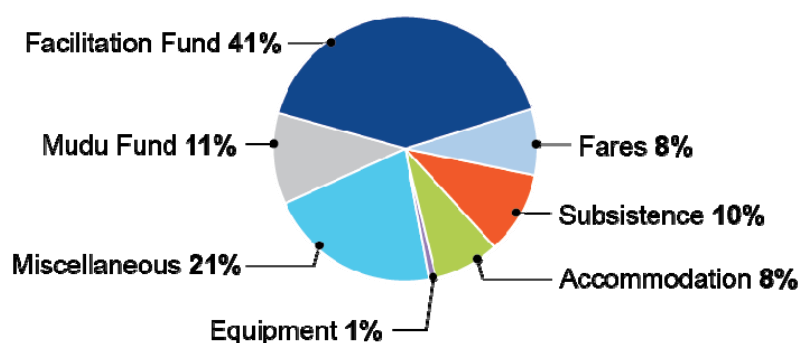
Throughout most of the programme's three phases, PrOpCom has maintained a cost relationship of 25 percent administrative to 75 percent technical expenditures.⁷⁵ The programme budget categories, contractually, were broken into fees (burdened

⁷⁵ Administrative costs are defined as those costs incurred by the operations staff for the day-to-day administration of the programme. Technical costs are all costs incurred by technical staff, as well as some costs incurred by operations staff in order to implement the programme's M4P objectives (e.g., field travel).



salaries), and reimbursables. By 1 October 2011, the total programme spend was £15,976,772 and the breakdown was 59 percent fees and 41 percent reimbursables.⁷⁶ The reimbursables comprised two special activity funds: the Facilitation Fund and the Mudu Fund (described in Section 12.2 below), as well as accommodation, fares, subsistence, equipment, and other miscellaneous expenses.⁷⁷ Figure 9 illustrates the breakdown among these cost categories.

Figure 9. Reimbursables to 1 October 2011



12.2 Special Activity Funds

In the original contract, £4.7 million was allocated to a Special Activity Fund (SAF); by 1 October 2011, £3,402,615 had been spent. At the outset PrOpCom had considered various approaches of how to apply the funds in the form of grants. For example, one approach was to provide a large grant of around £500,000 to a big buyer of a commodity in order to buy from smallholders at an agreed price, with the aim of jumpstarting the market. Another idea was to pay £500,000-£600,000 to subcontracted local consulting firms to facilitate change in a commodity market. It became clear in the inception phase that these approaches would not work. First, the concept of providing large sums of money to multinational firms was politically inappropriate and did not fall in line with the M4P facilitative principles. Second, PrOpCom experienced poor performance with its local subcontractors, rendering the facilitation idea untenable. Given these considerations, PrOpCom decided to split the SAF into two accounts:

1. *Facilitation Fund*. This fund was a broad category instituted so that PrOpCom could initiate and manage technical activities to achieve the programme goals. It allowed PrOpCom to respond quickly and entrepreneurially to opportunities that arose with intervention partners and in their respective markets. It gave the programme control over decisions on implementation costs or subcontracts, including the hiring of expert consultants to assist in managing the programme's technical activities (for example, in areas such as monitoring, communications, and business development). The fund also was used to hire advisory services of other organisations, such as FIPS-Africa; or to conclude subcontracts for activities, such as market surveys, policy assessments, or production of videos and the website.

⁷⁶ £9,452,954 fees and £6,561,285 reimbursables.

⁷⁷ Accommodation costs included rent for long-term staff. Fares incorporated travel airfares. Subsistence costs were for staff per diem payments (which included hotel costs). Miscellaneous expenses were other direct costs, including, among other things, operations, administrative, communications, technical, logistical support, and conference meeting expenses.



2. *Stakeholder Innovation Fund (SIF), later called the Mudu Fund (Managed Funds)*. The purpose of this fund was to provide grants to programme partners and stakeholders. The initial SIF process was stakeholder-initiated, with stakeholders defining the timing, scope, and area of impact of proposed grants. It required stakeholders to devise activities that fit within PrOpCom's interventions and were consistent with the M4P methodology. After the inception phase, however, PrOpCom recognised that this posed too large a hurdle for potential partners, as the programme did not receive a sufficient number of high-quality applications to enable the programme to award SIF grants. It was therefore reconceived into the Mudu Fund.

12.2.1 Mudu Fund (Managed Funds)

PrOpCom had 17 active Mudu Fund grants during the life of the programme (plus 4 SIF grants). The total value of the 21 grants awarded was N180.4 million (£723,346).⁷⁸ The programme adhered to the principle of pay-for-performance and, as shown in the complete grant table (Annex F, few partners received the total value of the grant agreement. By 1 October 2011, the total value of payments disbursed to stakeholders was N128.7 million (£719,261)⁷⁹, or 11 percent of the reimbursable expenses.

The Mudu Fund was established to address the issues described above by providing the programme with a greater ability to target and award the funds. The Mudu Fund would continue to support stakeholder initiatives by responding to proposals for innovative pro-poor market development. However, it would allow PrOpCom to target specific partners and support them in conceptualizing the M4P objectives and setting forth grant award requirements. Conceptually, the Mudu Fund was used not for the actual delivery of business support services, but rather for the development of those service markets.

The Mudu Fund Had Three Distinct Approaches for Grants:

1. Provide small grants to stakeholders to cover their risk in innovating technologies, forging relationships, or developing new markets.
2. Provide grants to support the establishment of associations or organisations needed to achieve PrOpCom's M4P objectives.
3. Issue results-based challenge grants to new and current partners.

Challenge Grants

In the traditional sense, challenge grants are issued to a group of stakeholders in a given market. These market players compete to submit the best proposal to resolve an identified market constraint in order to receive the grant awards. PrOpCom initially also followed this approach to its challenge grants. Here PrOpCom identified opportunities for partners to make pro-poor improvements in a market system, but did not, to the degree possible, define the desired solution. PrOpCom then issued proposal requirements for grant approval, and awarded the grant to the best bidder. PrOpCom worked with the bidder to set

⁷⁸ Reflects current exchange rate of 20 October 2011.

⁷⁹ The figure £719,261 is based on GBP values billed to DFID at the time of grant award, and does not reflect current exchange rates for the N128.7 million value.



the targets, deadlines, and award limits for the grant; and challenged the market actors to achieve the proposed changes.

However, PrOpCom later changed its approach, given that new partners did not always possess the right motivation to proceed in line with the M4P approach, despite the facilitation support provided by PrOpCom to achieve the grant objectives. PrOpCom then shifted its approach to issuing results-based grants, as an award for meeting a specific challenge, to pre-identified partners who demonstrated the fitting M4P attitudes. Only one market actor — i.e., Notore in the fertiliser intervention — rose to the challenge of fully adopting the proposed changes; it did not, however, fully meet the challenge targets, and was awarded only partial payment. The others — e.g., in the rice thresher and NAEC training interventions — did not adopt the changes.

PrOpCom Initiated Three Key Challenges:

1. Stimulate the production, marketing and sale of small, portable rice threshers to smallholder farmers.
2. Demonstrate a viable market for NAEC training services by soliciting market actor payment for NAEC training.
3. Expand market development of fertiliser distribution to 25 states, through a network of 900 village promoters, who will sell 5,000 MT of fertiliser in 1-kg & 10-kg packs.

12.2.2 Challenges of Mudu Fund Management

In its experience managing the Mudu Fund, PrOpCom faced five key challenges regarding the design and execution of the grant programme. It is important to note these challenges for future DFID or M4P programmes involving partner grants.

Designing and Targeting Initiatives. Designing and targeting initiatives that are attractive to industry and cooperative associations and help achieve a broader, pro-poor market objective has proven very challenging. Part of the difficulty involved the evolving nature of interventions during late 2008 and early 2009 during the redesign of the grant programme. In addition, balancing the incentives required for market participants to modify their behaviour or undertake new initiatives and document them in verifiable ways within a grant agreement took far more time and attention of programme staff than anticipated.

Lack of Partner Interest and Capacity. Lack of partner interest and capacity was another major impediment to broader use of the grant fund. Reasons were many, but included the need for better outreach efforts to the potential pool of applicants to inform them of the opportunity as well as a lack of understanding of the targeted partners and their practices. Many potentially qualified market participants did not respond to PrOpCom challenges even though they were aware of them because participating in an open, multi-stage bidding process is outside their normal business practices. Also, many of the larger industry participants were too busy focusing on running their business to pursue “aid funding.” With the smaller firms and cooperative associations a major issue was a lack of capacity to respond and or the inability to fulfil the requirements of the grant.



PrOpCom's Most Successful Grantees Were:⁸⁰

- Country Policy Centre (policy)
- First Bank of Nigeria Plc (tractors)
- Notore Chemical Industries Ltd (fertiliser)
- Springfield Agro Ltd (tractors)
- Standard Microfinance Bank (parboilers)

Impediments to Industry Cooperation. Another challenge discovered was the difficulty in getting multiple partners to work together to support novel undertakings such as introducing a new product or service offering, entering a new market, or serving a new potential customer base in an existing market. Due to Nigeria's banking crisis, PrOpCom found this cooperation to be particularly challenging when the programme's initiatives also required the presence of an additional, outside financing partner. In those cases where there was a genuine interest among multiple partners to work together, it fell on PrOpCom to do most of the groundwork to create the necessary business relationships through MoUs to support the grants.

Timeline Required to Award a Grant. The programme was also hampered by the time it took to award grant agreements, both for challenge grants and institutional grants. It proved very time consuming for industry representatives and associations to respond to the various stages in the challenges and for the programme to evaluate their submissions, due in large part to their dissimilar nature. Given the iterative nature of working with partners on institutional grants, the programme found that grants took longer to complete than anticipated.

Effort Required for Due Diligence. In designing the challenge fund concept, PrOpCom put in place standard competition and due diligence procedures to ensure transparency and fairness in grantee selection. These procedures proved to be too vague, making it difficult for the bidders to interpret the guidelines. This resulted in programme staff having to dedicate significant time and effort for a grant agreement to be concluded. Additionally, some grantees maintained poor financial systems, became uncooperative, or had their grants terminated for non-performance. PrOpCom staff expended a high level of resources providing guidance to these organisations on how to properly account for the grant expenses, and hand-holding them through the grant process.

13. ADMINISTRATION

13.1 Operations and Support

From inception to implementation, PrOpCom's operations philosophy has been to deliver reliable support services to technical staff that ensure both safety and value for money. This is not an easy task given Nigeria's poor infrastructure, cash-based economy, erratic power supply, and the threat of crime, corruption, and regional

⁸⁰ Successful grantees are those partners with whom PrOpCom has maintained strong relationships over time and through which PrOpCom achieved demonstrated market system changes and/or strong impact figures owing in part to the grant payments.



instability. The programme has encountered challenges along the way, but overall, PrOpCom’s operational structure has provided flexibility and logistical efficiencies in a tough environment.

Led by a director of operations, the operations team consisted of 14 people across three divisions — operations, grants, and finance — with each division headed by a manager. The operations manager oversaw the day-to-day operations of the programme, from facilities management to travel logistics. The contracts manager was responsible for overall compliance and delivery of PrOpCom’s grants. The field accountant managed the programme’s financial administration and compliance. Given the time-consuming nature of basic tasks such as booking flights, procuring goods, and making payments to vendors, the 1:2 staff ratio⁸¹ of administrative to technical employees proved effective in providing support and flexibility to the programme. In short, having the extra and able hands made technical implementation go more smoothly in Nigeria. The table below shows the breakdown of technical to administrative staff over PrOpCom’s three phases of activity, as well as a comparison of expatriate to local staff numbers.

| PrOpCom Staff through the Phases | | | | | |
|----------------------------------|--------------------------------------|-------|----------|-------|--|
| Phase | Date Range | Expat | Nigerian | Total | Comments |
| 1 | December 7, 2004- April 23, 2006 | 4 | 6 | 10 | Long term staff; 4 technical, 6 admin |
| 2 | April 24, 2006 – April 23, 2008 | 4 | 10 | 14 | Long term staff; 5 technical, 9 admin |
| 3 | April 24, 2008- December 31, 2011 | 6 | 26 | 32 | Long or extended short-term staff; 18 technical, 14 admin |

As with any programme, PrOpCom faced the challenge of staff turnover and facility deterioration over the six years. To counter early departures of staff, Chemonics’ demonstrated commitment to professional development by providing an annual training benefit to all long-term staff. Administrative staff took advantage of this benefit to obtain certification in such areas as basic computing, procurement, and accountancy. This benefit, combined with a competitive salary and opportunities for promotion — as occurred with one driver who became the operations assistant — helped to retain staff. Stability within the administrative staff had a positive effect on technical implementation. The primary challenge on the facilities side was the IT infrastructure. Issues included poor Internet connectivity, server failures, and viruses. PrOpCom hired an in-house IT consultant in August 2010 to enhance the system and correct oversights made by the previous outsourced organisation. The programme benefited from having an IT specialist in-house, because it ensured better quality and quicker service. Also, an added benefit was the IT specialist provided website maintenance for the communications team. The programme could have also utilised the IT consultant to provide ICT solutions for the monitoring and evaluation team; however, it was already too late in the programme cycle to take advantage of this skill.

13.2 Contract Management: Working with DFID

⁸¹ This ratio has been rounded up. PrOpCom ended its full implementation phase with 21 technical staff and 13 administrative staff, equalling a 1.6 “tooth to tail” ratio.



For M4P programmes, facilitating systemic and sustainable change requires patience, flexibility, and a willingness to assume risk. PrOpCom was fortunate that DFID demonstrated these traits and was supportive as PrOpCom evolved as a programme. As a first-time DFID service provider Chemonics had to adjust its internal processes to accommodate a new client and a new contract type (including the phased approach of design, inception, and implementation). In the final phase, the programme being implemented was quite different from that originally envisioned and budgeted for at inception. Throughout the programme, DFID experienced some staff turnover as well — resulting in varying interpretations on contract terms or procedures. In spite of these challenges, Chemonics managed good financial control through the life of the contract, adhered to its internal procedures for sound contract management, and DFID staff were always responsive, reasonable, and fair when working through challenges or misinterpretations of procedures with the implementing partner.

13.3 Security

Nigeria is a high-risk environment where the major threats include violent crime, kidnapping, and other armed attacks. Also, given the poor condition of roads, car accidents are frequent. Moreover, there is the growing threat of terrorism given the two car bomb attacks in the final year of the programme, including one at United Nations headquarters.

To Ensure the Safety and Welfare of Its Staff, PrOpCom Instituted a Number of Security Measures. These include:

1. Emergency Action Plan that details the programme's continuity plans and procedures and is reviewed regularly.
2. Phone cascade and SMS blast that allow the programme to account for staff immediately during an emergency.
3. Office security guards and Rapid Response Unit to guard the office in Abuja and provide for armed protection in the event of unrest in/around the premises.
4. Defensive driving training for all project drivers.
5. Journey management protocol that requires drivers to check-in with headquarters by phone at periodic stops during their field travel. The date, time, and location of their calls are logged into a tracker.

PrOpCom is fortunate to have had only one major security incident in its history, which was an armed car robbery in 2007. Following the incident, PrOpCom purchased a vehicle tracking service from a large security services firm. The service was initially useful because the firm's control room was monitoring the location of all project vehicles. However, the firm underwent a corporate re-structuring and PrOpCom saw a drop in customer service. Consequently, the contract was terminated and PrOpCom instituted the journey management protocol. Despite the outcome, future programmes should consider GPS and other tracking devices on their project vehicles as an additional security measure.

14. TECHNICAL STAFF DEVELOPMENT

When PrOpCom started it was evident that there was going to be a steep learning curve for technical programme staff in the new M4P programme implementation approach. The results of the Aide Memoire indicated a low level of understanding on the part of the programme staff of the M4P principles. At that time, the M4P concept



itself was a moving target, as ideas from various efforts worldwide were still being merged together on how best to implement it. As the approach was new to all staff, it was essential that they be assisted to learn so that their performance could be at the standard required for effective implementation. At the early stages of the programme, there were few external opportunities for training (The Springfield Centre was just beginning to put together its manuals on the subject), so senior staff provided training (formal and informal) in the office, including programme consortium members. This initial training was conducted by the programme manager in half-day workshops with programme staff on basic M4P concepts and through the development of templates for market systems analysis and programme implementation.

In 2008, when the programme started full implementation, two CIMs and the incoming programme manager were trained at the annual Springfield Glasgow training for two weeks. In the following years, all new CIMs were trained at Springfield events either at Glasgow in August or in the African regional event in Mombasa in February.

Informal training has been a key emphasis of the programme's approach to staff development. This has centred on the following skills: quantitative analysis, planning, monitoring, writing, interpersonal communications, and representation. Occasional, in-house formal courses were prepared for technical staff on influencing, writing, and interpersonal skills. One externally supported course was arranged on monitoring, and two presentations and discussions were arranged with the DCED Secretariat for PrOpCom staff and those of other interested donor programmes to learn more about the results measurement standard.

It has been important to establish an appropriate culture to support performance and to motivate learning and improvement. At the beginning, the staff complement was small and they were working closely together as a team sharing technical and context-based skills and experience, mutually supporting each other through the development phases of the programme. As the programme matured and became more fully active, the organisational culture needed to move to one where individuals felt responsible, empowered, and accountable for their performance and consequent results. This led to a heightened motivation to perform well and led to individuals seeking support from colleagues or raising questions at formal review meetings. To strengthen this performance behaviour at the beginning of full implementation phase, a weekly peer assist meeting was held. Later a quarterly strategic review meeting was held during which staff presented their work and progress to an open meeting of colleagues.

What Did CIMs Say About Working at PrOpCom?

"Employee's inputs and opinions are not only heard and encouraged, but also appreciated. There is strict compliance to conventional work ethics and code of conduct."

"The major difference between the management in PrOpCom and other Nigerian organisations is the organisational culture and the discipline and attitude to work as demonstrated by the top management."

"My journey at PrOpCom has been quite exciting and fascinating because of the diverse kinds of people I have met (farmers, partners, office colleagues, etc.), the way I have had to access information like a private investigator and analyze it for use, the knowledge I have learned to work with (intervention guides, DCED standards, etc.), and the travel I have taken to several states to measure the impact."

"PrOpCom's culture of quarterly review meetings provides the opportunity for brainstorming sessions, and colleagues usually make constructive contributions to my intervention."



Of course, good performance deserves appreciation, and this was provided both verbally and in writing, and through a system of annual performance pay awards.

The range of skills required to be an effective intervention manager is wide: from political analysis to effective listening, from specific industry skills (e.g., the uses of tillage implements) to financial analysis. There are few people who can easily and naturally apply themselves across the range, and it is reasonable to expect that the process of staff development takes two to three years. So that the programme had more chance of containing as many relevant skills at any particular time, it was a deliberate strategy to recruit a range of types of people, each beginning their development process at different points, but contributing to form a wide range of skills and experiences. The programme progressed as far as it did due to the large and continuous effort put into staff development. Staff would be the first to admit that the performance improvement curve is long and still to be completed, but the programme ends with a body of five Nigerian intervention managers who understand the basic skills of their job.



CONCLUSION

Photographer: Tiffany Urrechaga | PrOpCom has influenced political reforms in Adamawa state that have led to improved farmer access to fertilizer across remote regions of the state.



15. SUMMARY OF LESSONS LEARNED

The key lessons observed during the programme are given below:

M4P Is a Viable Approach in Nigeria

The programme had to deal with two constraints related to its interventions and crowding-in activities. There is a pervasive entitlement environment that exists in Nigeria. This sense of entitlement by stakeholders manifested itself in many of the programme stakeholders seeking handouts, patronage gifts, and other direct, concrete benefits from the programme. In addition, when the programme first contacted the PrOpCom stakeholder community, they looked to the programme to solve their problems and make things right. This attitude has been in place in Nigeria for years, evolving from traditional societies—in which the chief holds the responsibility to provide the livelihood and well-being of his tribe and used favours to buy patronage — through successive governments, both colonial and modern, that have used a patronage system of providing benefits for political and social support. In more recent times, donors and donor programmes also inadvertently encouraged the entitlement environment. Many conventional development programmes deliver goods and services as gifts or greatly discounted with high subsidies. Naturally, people come to expect these gifts as the norm, and when a programme such as PrOpCom offers to help them to solve their problems themselves, they may find this off-putting. This constraint exists not only in Nigeria but is also a common feature seen in other M4P programmes and many other activities, particularly in the developing world.

A second constraint in encouraging actions by motivated market players is the perceived lack of significant forces for change in its political, economic, and social environment. Just as the programme was beginning, DFID was completing an extensive study related to “Drivers of Change.” This study’s general conclusion was that the abundant availability of free resources, primarily oil revenue, within the social-political environment in Nigeria meant that any real driver of change is likely to be co-opted by the status quo. The study concluded that systemic change would be difficult in Nigeria, because the powerful preferred the current arrangement.

Despite these two constraints, PrOpCom has shown that the approach is sufficiently robust to get results even in such difficult contexts. The market system analysis is broad enough to include the analysis of institutions, society and politics; and interventions can be designed to support change.

Portfolio of Interventions

PrOpCom’s experience has shown that to have full knowledge of an industry, including both the formal and informal rules that drive that industry, requires an intimate level of understanding of both the industry and of the key players within it. This means that the programme, in addition to carrying out basic studies, must become actively involved by working within the sectors and industries that show promise after these initial studies. The results of engagement in sectors and interventions with only partial knowledge will be that some interventions of the programme will fail.

It is important that market development programmes allow for failure. By allowing for failure, the programme gives itself the freedom to test out situations where it seems



possible to have significant, sustainable systemic change. It also provides the programme a means to gain in-depth knowledge about a sector and its markets. Markets are too complex to understand just through studies. Those complexities can only be understood through interaction with these markets.

The concern is not only whether the project should have failures or not, but also how one determines when it is time to recognise that there is a failure and back away. All of PrOpCom's activities needed to have an exit strategy.

Many of the M4P programmes have a single focus within a single sector. PrOpCom, however, worked in a number of markets with a range of interventions. With limitation on the number of programme staff available, this broader approach was at times difficult. On the other hand, given the risk factors within Nigeria, the use of a portfolio of varied interventions was still the best option for the programme. PrOpCom needed to have a range of interventions that differed in scale, seasonality, large vs. small partners, and a diversity of interventions in different regions of the country. By spreading the risk of failure among a range of different types of interventions, the programme assured a higher probability of overall success.

Quality of Staff Is Fundamental to the Success of M4P Type of Activities

Technical staff on M4P/market development programmes need to be more broadly qualified and experienced than one would traditionally find on a conventional development activity. In a conventional development approach, much of the effort of the staff is in the delivery of goods and services. While this requires managerial skills in seeing that the correct inputs arrive at the correct time and place in support of project activities there is relatively little, if any, need for analytical skills to undertake such things as making informed judgments on the market. PrOpCom staff needed a broad understanding of markets and political economy to be able to make judgements to support interventions in those markets leading to a sustainable systemic change, resulting in pro-poor outcomes. This requires a relatively sophisticated level of analytical skills, the ability to gain a profound understanding of the industry in which they are working, sensitivity to the political environment in which these activities occur, and the political savvy and judgment required for the achievement of programme objectives. In addition, PrOpCom staff needed to have strong managerial skills to carry through with the programme's facilitative activities. This is a tall order. The programme sought to select staff members who have the ability to learn new skills required for the implementation of a market development programme. In general, these are individuals who are better educated and have more experience — it was also critical for these staff members to be flexible and have a strong desire to learn.

Even for those staff members who had the innate capability to understand market development, extensive formal training both in Glasgow and Mombasa coupled with continual on-the-job training was required for them to begin to fully understand how they were going to address the problems and activities in the programme through M4P interventions and activities. Programme staff needed this lengthy training and experience to be able to do the proper analysis and gain full understanding of interventions they were undertaking to become effective M4P facilitators. Overall, at least 18 months is required to train new staff to a position where they understand how to work; and even more time is required if they do not have the basic skills and attitude, or the mentoring support systems are not in place.



Picking Partners: Stakeholder Group or Large Companies

PrOpCom has used two very different approaches in its selection of partners. Initially the programme began by creating stakeholder groups centred on specific commodity or service market's value chains. This was done with the Kano Rice sector, the Ofada rice sector and the agricultural mechanisation service market. The idea was to pick key representatives along the value chain — from producers, processors, and marketers to traders, including government officials — and to meet with them in a series of discussions and meetings to begin to identify key market players and issues the programme would focus on with the stakeholders. The other approach used by the programme in the last year or so, was to seek out key leaders within a particular sector and to engage them directly on interventions. An example of this was with Notore, a leader in the fertiliser sector, and Olam, a leader in the rice-milling sector.

There have been advantages and disadvantages of both of these approaches. The broader use of stakeholder groups for the selection of partners has resulted in the programme working with smaller partners having fewer resources, but who were often highly motivated. It also meant that the programme has worked with partners who had good intentions but were unable or unwilling to follow through with those intentions. Further, it meant that the programme undertook a number of activities requiring programme support that put a lot of stress on the programme's limited staff. In addition, while these interventions potentially had very high potential for pro-poor outcomes, as seen in the example of the women parboilers in the Kano area, many of these interventions were going to take considerable time to scale up and to produce significant impact. In addition, because many of these partners had such limited capabilities, it made it difficult to provide them any form of grant funding under something such as Mudu Fund.

Working with larger key players in the sector had some advantages in terms of focusing programme attention and more efficiently using programme staff. In addition, these larger key market players could provide the programme needed credible champions and supporters within the sectors PrOpCom hoped to work. Many of these larger players were subsidiaries of foreign companies. Consequently, they had the necessary managerial and financial resources to undertake innovative market activities. When working with these larger market players, however, additional effort had to be made to assure that interventions with these players would have truly pro-poor outcomes. PrOpCom found that commitment, even from these larger firms, was a challenge. PrOpCom's activities were relatively small or peripheral to the main activities of the company. This required considerable education by PrOpCom to show senior management in these firms the importance of these activities and what it does to the firm's basic bottom line.

An additional difficulty in working with larger key players in a Nigerian context is that, as is common with large-scale activities in the country, corruption is a persistent problem, particularly with larger Nigerian-based firms as opposed to those linked to international firms. It is likely that capital ownership of such firms comes from questionable resources. How to deal with corruption in a market development programme requires skilled judgment and subtle actions by the programme. Ultimately, the programme's credibility is linked to the partners it works with. At the same time, the programme has found that it can transparently and selectively work with a range of key partners in a way that neither provides specific support nor comfort to unethical behaviour. The line that PrOpCom often used is that, "we are a friend to everybody, but not a special friend to anybody." At



the same time, there is always a danger of public exposure in the press that DFID is supporting an activity that is connected with notorious individuals or groups. Balancing the need to work with larger players in the Nigerian context and the sensitivity of how this would be viewed by the outside press, particularly in the United Kingdom, has limited the freedom of the programme to pick its partners and to find ways to work with them.

Investment in Management Systems Paid Off

The considerable amount of effort put into adopting the DCED results measurement standard paid off. It helped the programme to allocate resources during moments of constraint, to focus energies on key points of the causal chain, to highlight risks, and to identify evidence gaps that required filling. Staff reported that although the systems appeared cumbersome and excessively detailed, it helped them to make strategic choices and to communicate their work.

16. KNOWLEDGE SHARING AND COMMUNICATIONS

While it is essential that relevant knowledge is shared inside and outside a programme, the first step, creating knowledge, is the hardest and has taken a long time for PrOpCom to attain. As a consequence, the organisational structure and culture was initially focused on gaining knowledge, and only in the last 18 months were changes made to support knowledge sharing. These changes included hiring a skilled person to link knowledge and communication functions, providing training to staff on knowledge sharing, requiring compulsory weekly reports by all intervention managers in the form of an after-action review, and implementing quarterly strategic reviews where all staff shared progress with colleagues and where communications (and implicitly knowledge) was explicitly addressed as a function.

After the knowledge had been generated and impacts began to surface, PrOpCom in early 2009 began introducing more channels for external sharing of its knowledge: Facebook, website, publications, videos, supporting DFID-organised events related to start-up of GEMS, or M4P learning events. These media were targeted most importantly at local stakeholders (to further intervention impact), and secondarily to the international development community (to promote PrOpCom's knowledge).

While PrOpCom had developed a strong internal culture around informal knowledge sharing, recorded data and document sharing did not come easily to intervention managers. As a result, the communications and monitoring functions oftentimes had to proactively pull records from the CIMs in order to properly collate, validate, and report on the correct data, for example to cite data sources for the results chains or report intervention impact in communications materials.

16.1 Communications Effectiveness

In early 2011, PrOpCom began developing systems to track its communications outreach and impact. In total, PrOpCom published 12 success stories on its parboiler, fertiliser, policy and Ofada and NAEC training interventions, and three intervention profiles on its fertiliser, tractor, and parboiler interventions. These publications were centrally distributed to relevant persons on a 500+ contact mailing list, and were given to intervention managers to hand out during meetings with



stakeholders. On several occasions, passages from these publications were directly quoted by the Nigerian newspapers. In total 65 known media stories on PrOpCom's work were published. PrOpCom's CIMs concluded six radio and television interviews on their respective interventions for such influential media as Agfax, BBC Hausa, the Federal Radio Corporation of Nigeria (FRCN), Nigerian Television Authority (NTA), and the Voice of Nigeria (VON).

From January through September 2011, PrOpCom's website generated 11,877 visits (averaging 1,320 per month). The average number of page impressions per month was 2,710, equalling an average of two page viewings per visitor. The Facebook page by programme end had more than 520 subscribers, and had a weekly average of 119 visits to the page and 10 posts (initiated by PrOpCom) or comments on postings (user initiated).

In mid-2010, PrOpCom began production of a 30-minute tractor video, *A Farm-tastic Future*, and in early 2011, PrOpCom produced its three-part fertiliser video shorts of five minutes each, *A Fertile Alternative*. In late 2011, PrOpCom finished its video portfolio with a two-part video series, *Give Them Some Credit!*, also of five minutes each, highlighting the programme's impact on women through its parboiler and fertiliser interventions. Over the course of its work with the three video projects, PrOpCom's resource-effectiveness grew. Less time was spent producing shorter videos with more concise and targeted messages. The cost of producing the third video also dropped dramatically from the costs of the first two.

From a partner facilitation perspective, the videos proved to be influential communications media. An effective tool for rapid and mass dissemination of information, they promoted the M4P goal of facilitating and influencing stakeholders, first, because of the group discussions generated after they were viewed, and, second, because of partners' ability and desire to show them to other indirect stakeholders. PrOpCom posted the videos on YouTube and aired the DVDs at several events, including:

What Did PrOpCom's Partners Say About the Videos?

"TOOAN used the tractor video as an advocacy tool in recruiting new members, spreading opportunities in the sector by promoting a better understanding of the private tractor service business in Nigeria. 150 people so far have watched the tractor video at six sessions TOOAN organised for potential members and stakeholders. This has led to increased interest in the tractor markets, financing opportunities and negotiation with banks and farmers. The video is self-explanatory, user-friendly and engages stakeholders."

— Alhaji Danladi Garba, Officer of TOOAN

"The tractor video presents first-class statistics on Nigeria's tractor market. It tells us what we have missed, and presents the future of agriculture in Nigeria given an aggressive tractorisation policy, as well as what we can do to make it happen. It gives practical tips on types of tractors suitable for Nigerian soils and how farmers can reap maximum benefits from using tractors in their farms. It is also an advocacy tool for sensitizing the banks and other investors on the opportunities in the tractor market."

— Mr. Emmanuel Ijewere, Chairman of Agriculture and Food Security Commission, Nigerian Economic Summit Group (NESG)



1. A viewing event in Lagos drew 32 tractor stakeholders from banks, tractor companies, large and small-scale farmers, farmers associations, and TOOAN.
2. The fertiliser videos were shown at the national symposium on “Making agricultural research work for end-users,” organised by the Nigerian Agricultural Policy Research Network (NAPRNet). More than 100 participants attended from the public and private sectors, academic and research communities, development practitioners, and the media.
3. The fertiliser videos were presented at the Adamawa Fertiliser Business Meeting to an audience of 50 people, including influencers such as the state permanent secretary for agriculture and other members of the Ministry of Agriculture.
4. The managing director of Notore showed the fertiliser video to the governor of the Central Bank of Nigeria. The CBN governor commended the video for its use of the farmers’ local language, as one farmer used a uniquely Hausa phrase that clearly expressed how tired he was of the unmet promises of the government. The local language gave the farmers “voice” to high-ranking influencers.

17. VALUE FOR MONEY

17.1 Introduction

From the outset, PrOpCom was focussed on delivering value for the funds that DFID invested. The initial focus on stakeholder-led processes was chosen to ensure that the programme was meeting the needs of poor people rather than responding to the perceived market failures deduced from value-chain analysis. This was intended to address effectiveness.

Once the programme was in full implementation, it swiftly adopted the DCED results measurement standard with clear results chains between activities and impact, and evidence of attribution between the steps of the chain. This focus ensured that the programme was efficient, directing efforts only in line with the intended logic. Measures were also made of investment leverage, cost by intervention, and cost by job. These measures heightened the drive for efficiency.

17.2 Technical Leverage

PrOpCom’s value for money (VFM) analysis provides information on the efficiency achieved at the programme level. The calculations are performed by comparing the impact measured in the goal-level indicators against the cost expended by the programme to achieve them.

To analyse its programmatic value for money, PrOpCom considered both total phase 3 (implementation) costs as well as total programme cost. The phase 3 costs amounted to £9.9 million, whereas the total programme costs amounted to £16.6



million.⁸² These two analyses highlight the difference in the value for money of the full implementation phase versus the value for money achieved by the whole programme—the latter includes the costs for initial programme design and the subsequent strategy shift of implementation.

| | Phase 3 Cost | Total Programme Cost |
|-----------------------------|---------------------|--------------------------------|
| 2011 | (£9,908,286) | £16,569,807 |
| | Impact | Value for Money |
| Outreach | Total | Cost per beneficiary |
| 2011 | 1,264,180 | (£8) £13 |
| 2013 | 2,236,078 | (£4) £7 |
| Jobs created | Total | Cost per job |
| 2011 | 17,633 | (£562) £940 |
| 2013 | 29,198 | (£339) £567 |
| Net income generated | Total | Net income per £1 spent |
| 2011 | £41,183,092 | (£4) £2 |
| 2013 | £88,126,264 | (£9) £5 |

PrOpCom's cost of outreach for phase 3 alone lay at £8 per person, whereas the total programme cost of outreach was £13 per person. By December 2013⁸³ the cost of outreach for phase 3 is expected to drop to £4 per person, or £7 per person for total programme cost, due to the increased number of beneficiaries. For jobs created, PrOpCom will have spent £562 per job (phase 3 cost) or £940 per job (total programme cost) by December 2011. This ratio improves to £339 per job (phase 3 cost) or £567 per job (total programme cost) by the end of December 2013. Lastly, by December 2011 PrOpCom will have generated £4 in additional net income for each £1 spent in phase 3 costs or £2 in additional net income for each £1 spent in total programme costs. This is anticipated to improve to £9 in additional net income per £1 spent (phase 3) or £5 in additional net income per £1 spent (total programme) by December 2013.⁸⁴ For all three goal-level indicators, the ratios improve between December 2011 and December 2013 because of the significant increases anticipated in the outreach, jobs, and income figures, owing primarily to the tractor and fertiliser interventions.

As discussed in the Programmatic Impact section (Section 4), PrOpCom also records investment data from its public and private sector partners as a proxy for commitment to the market changes introduced. By the end of December 2011, PrOpCom will have attracted £2.42 in investment for every £1 of PrOpCom phase 3 cost or £1.45 in investment for every £1 of total programme cost. This ratio is set to improve to £2.75 in investment for every £1 of phase 3 cost or £1.65 in investment for every £1 of total programme cost by December 2013.

Furthermore, PrOpCom conducted VFM analyses at the individual intervention level, in order to understand the relative efficiencies of impact. To do this, PrOpCom separated out the strict technical costs of implementation in phase 3. As PrOpCom

⁸² Total cost of phase 3 includes actual (1 April 2008 – 30 September 2011) and projected (1 October – 15 December 2011).

⁸³ December 2013 is the end of the monitoring period, as explained in Programmatic Impact (Section 4).

⁸⁴ The additional income figure comprises for the large part income generated among poor households or poor laborers and can therefore be considered as the cost of poverty reduction.



did not consistently focus on allocating cost data to intervention activities, the VFM cost data are therefore approximations; nevertheless they provide a sound basis for comparison of the interventions' value for money.

The Key Aspect of Any VFM Calculation Is the Costs Upon Which the VFM Ratios Are Based. In PrOpCom's Intervention-level VFM Analyses, the Costs Considered Are:

1. Direct salaries and technical expenses
2. Monitoring and evaluation expenses
3. Communication expenses
4. Training and workshop costs
5. Other technical costs (studies, reports, etc.)

The above-mentioned costs are considered as the costs of technical implementation. They exclude overhead and other administrative costs, as well as travel expenses of long-term staff. For the period from 1 June 2008⁸⁵ to 30 September 2011 the total technical implementation cost lies at £6.3 million. This technical cost forms the basis for the intervention-level VFM calculations contained in Annex E.

Discussion

The figures presented in table above show that, at the programme level, PrOpCom has achieved favourable VFM figures for outreach and additional income generated. Comparatively, the VFM of jobs created appears costly. This is due to the challenging nature of defining jobs created. Labourers are paid a daily rate for the number of days worked, so that labour is monitored in terms of labour-days. For reporting purposes in M4P, however, labour-days are converted to full-time equivalents (FTEs) on an annualised basis (i.e., 240 labour-days equals one FTE). This results in a significantly contracted job figure, which in turn contributes to the high cost per job.

The VFM figures reported are averages across the interventions; not all interventions have achieved strong VFM leverage ratios. For example, the parboiler intervention showed strong VFM for net income, but the limited scale of outreach caused poor VFM efficiency along this metric. The fertiliser intervention, on the other hand, achieved a huge scale of outreach, but poor VFM for net income. For a comparative analysis of VFM across PrOpCom interventions, please refer to Annex F.

At the programme level, the broad outreach of the fertiliser intervention contributed the most in lowering the total cost of outreach, while the parboiler and tractor interventions provided impressive leverage figures for cost per unit of additional income generated. The greatest contributors to reducing the programme-wide cost per job created are the parboiler and tractor interventions, as both of their primary markets are linked to a significant number of upstream and downstream market actors, such as farmers, labourers, or millers. As a result, interventions in these two markets led to considerable numbers of jobs created as well as scale of outreach.

Another issue affecting VFM ratios is the sheer cost of market development in Nigeria. The lack of potential service providers and sub-optimal level of partners'

⁸⁵ While phase 3 began in April 2008, the technical costs accounted accrued as of June 2008.



capacity incur high costs, which affect the VFM leverage. Furthermore public sector distortions of the market create undue hurdles for private sector players, further increasing the cost of market intervention.

Looking forward to RAMP or other DFID programmes, VFM could be used as a significant driver for designing more efficient interventions, not only in terms of outputs and outcomes but also in terms of managing costs. VFM, if institutionalised at the level of the intervention managers, could significantly reduce the burden on the programme manager of analyzing interventions' efficiency. VFM calculations would help put the tools for analysis in the intervention managers' own hands, allowing them to better strategically assess the efficiency of their own facilitation work.

17.3 Administrative Leverage

From a programme management perspective, PrOpCom has sought various ways to ensure cost effectiveness to maximise the programme's budget. These include reduced local subsistence allowances for work travel within Nigeria, maintaining a 1:3 ratio of administrative cost to technical implementation cost, and use of well-established financial and administrative systems. The service provider, Chemonics, maintained the same negotiated fees billed to DFID throughout the seven-year period (with no adjustment for inflation). Also as a cost-saving mechanism, Chemonics used the Facilitation Fund to bring on needed talent through longer-term consultant contracts with no associated margins.

Chemonics provided a Washington, D.C.-based project management unit (PMU) of three persons, access to its worldwide network of technical and administrative experts, and offered local employee professional development training, all at no direct cost to DFID. Programme staff availed themselves of the professional development training funds for coursework in subjects such as project management, accounting certification updates, MS software training, and business management. Twenty PrOpCom long-term employees completed a total of 33 training sessions under this unbilled fringe benefit, adding inherent technical value not only to PrOpCom, but also to the benefit of those employees.

Chemonics has an ISO 9001:2008 certified QMS in place to ensure the services and products delivered to clients follow procedures and processes that are consistent and streamlined. Chemonics uses time-tested systems to compete opportunities for the provision of goods and services, effectively maximising value to the U.K. government through competition and efficient systems. This process ensures the highest quality of service at the best possible price in procurement, transportation, and travel.



ANNEXES

Photographer: Tiffany Urrechaga | PrOpCom has helped female parboilers in Kano gain access to small loans. From the additional income they have earned on their improved parboiling businesses, many have invested in other income-generating assets, such as sewing machines or livestock.



Annex A. PrOpCom Logical Framework

| Goal | Indicator 1 | Baseline (Apr. 2006) | Milestone 1 (Sep. 2009) | Actual (Sep. 2010) | Actual (Apr. 2011) | Target (Dec. 2011) | | |
|---|--|---|-------------------------|-------------------------|--------------------|--------------------------|---|---|
| To improve pro-poor growth in non-oil sectors in Nigeria | % Change in net income of poor households engaged in selected agricultural market systems | 0 | Baseline Plus 2.5% | 47% (+ 5%) | 32% (+10%) | 37% (+10%) ⁸⁶ | | |
| | | Source In-house surveys cross-referenced with Nigerian national statistics (http://www.nigerianstat.gov.ng/nlss/2006/index.html) | | | | | | |
| Purpose | Indicator 2 | Baseline (Apr. 2006) | Milestone 1 (Sep. 2009) | Actual (Sep. 2010) | Actual (Apr. 2011) | Target (Dec. 2011) | Assumptions | |
| To Improve the pro-poor performance of selected agricultural market systems | % Change in productivity of poor households engaged in selected agricultural market systems | 0 | 3.75% | 26% (+7.5%) | 15% (+15%) | 26% (+15%) | <ul style="list-style-type: none"> Nigeria maintains a state of basic political stability with openness to market development. | |
| | Source: Commissioned studies/surveys and reports and evidence from partners | | | | | | | |
| | Number of successful innovations impacting poor households engaged in selected agricultural market systems | Indicator 3 | Baseline (Apr. 2006) | Milestone 1 (Sep. 2009) | Actual (Sep. 2010) | Actual (Apr. 2011) | Target (Dec. 2011) | <ul style="list-style-type: none"> General economic growth continues in the country. |
| | | 0 | 5 | 17 (15) | 22 (30) | 25 (30) | | |
| Private investment within targeted market systems (per annum) | Indicator 4 | Baseline (Apr. 2006) | Milestone 1 (Sep. 2009) | Actual (Sep. 2010) | Actual (Apr. 2011) | Target (Dec. 2011) | | |
| | 0 | £0.2m | £23.4 m (£5.8 m) | £4.1m (£11m) | £ 4.8m (£11m) | | | |
| | | Source: Commissioned studies/surveys and reports and evidence from partners | | | | | | |
| Inputs(£) | DFID (£) | Govt (£) | Other (£) | Total (£) | DFID SHARE (%) | | | |
| | 15,137,233 | | | 15,137,233 | 100 | | | |
| Inputs (HR) | DFID (FTEs) | | | | | | | |
| | | | | | | | | |

⁸⁶ Milestone targets set by DFID.



| Output 1 | Indicator 5 | Baseline (Apr. 2006) | Milestone 1 (Sep. 2009) | Actual (Sep. 2010) | Actual (Apr. 2011) | Target (Dec. 2011) | Assumptions |
|--|--|----------------------|-------------------------|--------------------|--------------------|---------------------------|--|
| Stimulate growth in/around Kano and South-West rice markets (through quality improvement and branding) | % Change in average number of stones per 20g of rice | 0 | 0 | 0% (-20%) | -50% | -50% ⁸⁷ (-20%) | <ul style="list-style-type: none"> • CBN support for commercial agriculture delivered. • Sociological constraints do not impede progress. |
| | PrOpCom and VeeTee Reports | | | | | | |
| | Indicator 6 | Baseline (Apr. 2006) | Milestone 1 (Sep. 2009) | Actual (Sep. 2010) | Actual (Apr. 2011) | Target (Dec. 2011) | |
| | % Change in new sales of improved quality/branded rice | 0 | 0 | 2% (20%) | 50% | 50% (20%) | |
| PrOpCom and VeeTee Reports | | | | | | | |
| Indicator 7 | | Baseline (Apr. 2006) | Milestone 1 (Sep. 2009) | Actual (Sep. 2010) | Actual (Apr. 2011) | Target (Dec. 2011) | |
| Impact Weighing | Number of partners investing in product branding | 0 | 6 | 9 (30) | 50 | 50 (30) | Risk Rating |
| 10% | PrOpCom Studies of Market | | | | | | High |
| Inputs (£) | DFID (£) | Govt (£) | Other (£) | Total (£) | DFID SHARE (%) | | |
| | 2,074,424 | | | | 100 | | |
| Inputs (HR) | DFID (FTEs) | | | | | | |
| Output 2 | Indicator 8 | Baseline (Apr. 2006) | Milestone 1 (Sep. 2009) | Actual (Sep. 2010) | Actual (Apr. 2011) | Target (Dec. 2011) | Assumptions |
| Rural financial services markets deepened (through introduction of mobile-banking services) | Number of partners adopting eTranzact's payment platform | 0 | 1 | 3 (3) | 3 | 3 (3) | <ul style="list-style-type: none"> • Stability of Nigerian financial system and liberal market regulation. • Labour migration to urban areas does not persist. |
| Impact Weighing | | | | | | | |
| 20% | | | | | | | |
| Inputs (£) | DFID (£) | Govt (£) | Other (£) | Total (£) | DFID SHARE (%) | Risk Rating | |
| | 1,037,212 | | | | 100 | High | |
| Inputs (HR) | DFID (FTEs) | | | | | | |



| Output 3 | Indicator 9 | Baseline (Apr. 2006) | Milestone 1 (Sep. 2009) | Actual (Sep. 2010) | Actual (Apr. 2011) | Target (Dec. 2011) | Assumptions |
|--|---|-----------------------------|--------------------------------|---------------------------|---------------------------|---------------------------|--------------------|
| Fertiliser market deepened (through product diversification and farmer training) | Number of training programmes organised by fertiliser companies | 0 | 2 | 46 (8) | 46 (8) | 46 (8) | |
| | PrOpCom and Notore Reports | | | | | | |
| | Indicator 10 | Baseline (Apr. 2006) | Milestone 1 (Sep. 2009) | Actual (Sep. 2010) | Actual (Apr. 2011) | Target (Dec. 2011) | |
| Impact Weighing | Number of product innovations introduced to market | 0 | 1 | 4 (3) | 4 (5) | 5 (5) | |
| 30% | PrOpCom and Notore Reports | | | | | | |
| Inputs (£) | DFID (£) | Govt (£) | Other (£) | Total (£) | DFID SHARE (%) | | Risk Rating |
| | 2,074,424 | | | | 100 | High | |
| Inputs (HR) | DFID (FTEs) | | | | | | |

| Output 4 | Indicator 11 | Baseline (Apr. 2006) | Milestone 1 (Sep. 2009) | Actual (Sep. 2010) | Actual (Apr. 2011) | Target (Dec. 2011) | Assumptions |
|---|---|----------------------|-------------------------|--------------------|-----------------------|--------------------|--------------------|
| Stimulate private sector orientation in agricultural mechanisation services markets | Number of partners adopting new ideas, products and private sector market opportunities | 0 | 4 | 6 (6) | 9 (6) | 12 (6) | |
| | PrOpCom Reports/Studies | | | | | | |
| | Indicator 12 | | | | | | |
| Impact Weighing | Number of tractors available to farmers for hiring through new private channels | 0 | 0 | 50 (70) | 50 (200) | 77 (200) | |
| 10% | PrOpCom Reports/Studies | | | | | | |
| Inputs (£) | DFID (£) | Govt (£) | Other (£) | Total (£) | DFID SHARE (%) | | Risk Rating |
| | 1,037,212 | | | | 100 | High | |
| Inputs (HR) | DFID (FTEs) | | | | | | |



| Output 5 | Indicator 13 | Baseline (Apr. 2006) | Milestone 1 (Sep. 2009) | Actual (Sep. 2010) | Actual (Apr. 2011) | Target (Dec. 2011) | Assumptions | |
|--|--|-----------------------------|--------------------------------|---------------------------|---------------------------|---------------------------|--|------|
| Relevant institutional support systems developed | Number of organisations adopting Nigerian Agriculture Enterprise Curriculum (NAEC) | 0 | 1 | 2 (2) | 3 (3) | 3 (3) | <ul style="list-style-type: none"> Other donor programmes do not disrupt the market. Policy change is timely and positive for entire sector. | |
| | PrOpCom Reports/Studies | | | | | | | |
| | Indicator 14 | Baseline (Apr. 2006) | Milestone 1 (Sep. 2009) | Actual (Sep. 2010) | Actual (Apr. 2011) | Target (Dec. 2011) | | |
| Impact Weighing | Number of documented incidences of change in investor and official views toward market-led development | 0 | 10 | 18 (20) | 77 (30) | 77 (30) | Risk Rating | |
| 30% | | PrOpCom Reports/Studies | | | | | | High |
| Inputs (£) | DFID (£) | Govt (£) | Other (£) | Total (£) | DFID SHARE (%) | | | |
| | 2,074,424 | | | | 100 | | | |
| Inputs (HR) | DFID (FTEs) | | | | | | | |



Annex B. Evolution of PrOpCom's Logical Framework

| | Design July 2003 | Programme Memorandum April 2004 | Inception Phase June 2005 | Implementation Phase July 2006 | Present Document August 2006 | |
|----------------|--|--|---|--|--|---|
| Goal | To improve the livelihoods of the poor by facilitation growth and pro-poor outcomes in commodity and service markets and centres of production | Improve livelihoods of a substantial number of poor Nigerians, especially women | To contribute toward poverty reduction and improved livelihoods of the poor in Nigeria | To contribute toward poverty reduction and improved livelihoods of the poor in Nigeria | To support sustainable growth in the non-oil sector through enhanced productivity in agriculture. | |
| Purpose | Facilitate systemic pro-poor changes for selected commodity input and output chains and service markets and centres of production | Systemic change in selected commodity and service markets and centres of production, delivering pro-poor outcomes | To facilitate improved livelihoods of poor households involved in selected commodity and service markets through systemic pro-poor changes in commodity and service markets | To facilitate pro-poor systemic change in commodity (and related service) markets, using Making Markets Work for the Poor (M4P) approach | To facilitate market-led reform through improvements in selected commodity markets | |
| Outputs | 1 | Enable environment established in selected commodity chains and centres of production | Enabling environment established for selected commodity chains and in centres of production | Systemic change implemented in selected commodity markets | Change the institutional framework to facilitate pro-poor outcome from market activities | An improvement in formal and informal policies and regulations guiding selected commodity markets in a manner that facilitates market-led and pro-poor outcomes |
| | 2 | Improved availability of and access to agricultural inputs services and commodities generated in selected areas | Improved availability of and access to agricultural inputs services and commodities generated in selected areas | Improved availability of and access to commodities and service inputs generated in selected areas | Improve commodity market functionality and efficiency resulting in increased pro-poor access and participation in market processes | Lessons derived from enhancing market efficiencies that lead to pro-poor outcomes are communicated to and shape the thinking of stakeholders |
| | 3 | Increased output and value added in selected commodity output markets | Increased output and value added in selected commodity output markets | Increased output and value added in selected commodity output markets | | |
| | 4 | Sustainable development integrating poverty reduction with gender, social conflict, HIV/AIDS promoted through PrOpCom interventions and engagement in selected areas | Sustainable development integrating poverty reduction with gender, social and environmental vulnerabilities, HIV/AIDS promoted through PrOpCom interventions and engagement in selected areas | Sustainable development integrating poverty reduction with gender, social conflict, HIV/AIDS promoted through PrOpCom interventions and engagement in selected areas | | |
| | 5 | Learning: 1. Learning from formative evaluation from which disseminated lessons and insights improve programme performance 2. Learning from formative and summative evaluations from which disseminated lessons and insights improve planning and policy making | Effective learning and communication builds stakeholder coalitions to shape systemic change, influence policy decision and investments | Systems and structures to apply administer and monitor PrOpCom's activities in place | Programme results are communicated to stakeholders, shaping the thinking of change agents, government and development agencies and contributing to international best practices on M4P | Selected commodity markets function more efficiently and have pro-poor outcomes |



Annex C. Economic and Social Benefits of PrOpCom Interventions on Female Beneficiaries

In August 2011, PrOpCom conducted a study on the impact on female beneficiaries of PrOpCom fertiliser and parboiler interventions in Kano and Adamawa states. The purpose of the study was to determine whether the increases in net income of PrOpCom's female beneficiaries led to greater economic and social benefits. Indicators of economic and social benefit assessed included: increases in women's roles, responsibilities, or status in their households or communities; growth of their asset bases; or higher degrees of decision-making.

The study results showed a positive correlation between the increases in respondents' net incomes and gains in economic and social benefits. Among the economic benefits, women increased their level of investments in assets or reinvestments in their businesses. Among social benefits, women's status in the household was stronger, as they were seen as a contributor rather than a liability. Their status in their communities also increased, as they were able to provide gifts and knowledge to others.

Analysis of Economic Benefits of PrOpCom's Female Beneficiaries

| Income, Household Expenditure and Asset Accumulation ⁸⁷ | Kano Farmers | Kano Parboilers | Adamawa Farmers | Adamawa Parboilers |
|--|--------------|-----------------|-----------------|--------------------|
| Change in income per respondent (N) | 46,564 | 63,774 | 29,587 | 1,351,398 |
| Change in income per respondent (%) | 44% | 163% | 24% | 67% |
| Change in contribution to household expenditures ⁸⁸ (%) | 2% | 2% | 0% | 3% |
| Change in level of assets per respondent ⁸⁹ (N) | 258,431 | 40,558 | 58,799 | 228,281 |
| Change (%) | 125% | 58% | 12% | 69% |
| Changes in Business Expenditures⁹⁰ | | | | |
| Change in investment on seeds/ paddy (%) | 6% | 78% | 29% | 73% |
| Change in investment on other inputs ⁹¹ (%) | 30% | 29% | 12% | 29% |
| Change in investment in labour (%) | 19% | 122% | 18% | 68% |

The female farmers and parboilers of Kano and Adamawa states increased their incomes significantly, as well as the value of assets owned. In both states, however, their levels of contribution toward household expenditures did not change noticeably. This suggests that the husbands still paid for most of the household expenses, while the women increased their own levels of disposable income, which they used to invest in their businesses, assets, or personal expenses. This disposable income could serve as a buffer to protect a woman and her family from shocks in the case that the husband may not be able to support the family, thus reducing the woman's vulnerability.

⁸⁷ All changes in levels of income, expenditure, and assets are measured against pre-intervention baselines.

⁸⁸ Contribution to household expenditure includes expenditures on healthcare, house, food, and education.

⁸⁹ Assets include livestock, land, farm equipment, poultry, and savings.

⁹⁰ All changes in business expenditures measured against pre-intervention baselines.

⁹¹ Other inputs include fertiliser, parboiling equipment, and firewood.



PrOpCom was not able to determine the exact level to which the income increases reported by the female parboilers in Adamawa were solely from parboiling, as most of the women were also engaged in smaller businesses. As such, the programme could not rightly claim 100 percent attribution for the Adamawa parboilers' increases in income and assets. PrOpCom could only say that its intervention *contributed* to the increases in income and assets, as opposed to being solely responsible — as it was for the other three sample groups. Interestingly, the female farmers in Kano were able to accumulate far more assets than the Kano parboilers.

Also of interest is that the Adamawa parboilers increased their net income significantly more than the Kano parboilers (more than 21 times higher). This could be explained by the fact that the Kano parboilers intervention preceded the intervention in Adamawa, so that the programme was able to learn from its work in Kano and achieve better results. Furthermore, the Adamawa women were already acting as traders in the market (whereas the Kano parboilers were originally acting as contract-parboilers); hence the Adamawa parboilers had greater trading skills. However, the percentage change in net income of the Kano parboilers was higher. This could be explained by the fact that most of the Adamawa parboilers were already acting as trader-parboilers and not as contract parboilers (as was the case in Kano prior to the intervention).

In both states female parboilers and farmers reported increases in their levels of investment in their businesses, measured in terms of seed/paddy, other inputs, or labor. While both farmers and parboilers increased their investment, the parboilers' change in investment was higher.

Connection Between Economic and Social Benefits

PrOpCom found a positive correlation between increases in economic benefits and increases in social benefits. Women reported being elevated to a higher status and gaining more respect within their families and communities due to their income increases. As a result, they claimed to have more influence over decision-making than before. Although the husbands were still the final decision makers in their households, women reported that due to their stronger economic positions they were able to assert greater influence over purchase decisions.

The roles and responsibilities of the women in Kano and Adamawa did not change drastically after PrOpCom's interventions, but the women did expand their business activities (creating a decrease in their ability to manage their household duties and/or decrease in free time). Again, the husbands maintained the final decision-making authority about giving or taking away a woman's permission to perform business or farming activities. Although women reported being far busier than before the intervention, no reports of a husband revoking the women's permission to do business were observed. The same was true in case of buying and controlling assets. All the women surveyed reported having to ask permission from their husbands to purchase assets such as land and livestock. However, no reports of a husband preventing his wife from buying assets were observed.

Women reported that their opinions were listened to more attentively than before, because, as some stated, husbands perceived them as contributing to the household rather than as a liability. The biggest social gains of the women were their influence on the other women in the community. Other women in the community looked up to the PrOpCom beneficiaries as a source of inspiration, knowledge about business, access to business services, or source of loan money or gifts.



Annex D. PrOpCom Grants from 2007 to October 2011

| Grant No. | Period of Performance | Title of Grant | Name of Grantee | Value of Grant (N) | Amount Paid (N) | Difference (N) |
|---------------|--------------------------------|---|--|--------------------|-----------------|----------------|
| SIF-01 | Jun. 4 – Aug. 31, 2007 | Development & Fabrication of parboiling equipment | TADCO | 1,857,817 | 1,857,817 | 0 |
| SIF-02 | Oct. 8 – Nov. 07, 2007 | Increasing parboiling capacity and production of branded rice | KNAFES Enterprises | 1,246,100 | 1,226,100 | 20,000 |
| SIF-03 | Jun. 16 – Dec. 15, 2008 | Promotion of Policy Dialogue amongst Stakeholders | COPOC | 18,772,000 | 18,772,000 | 0 |
| SIF-04 | Feb. 2 – July 31, 2009 | SIF - 04 Agreement | COPOC | 16,272,000 | 16,272,000 | 0 |
| Mudu Fund-05 | Apr 20 – July 15, 2009 | Mudu Fund-05 | Notore | 2,505,600 | 2,505,600 | 0 |
| Mudu Fund-06 | April 1 – Oct. 31, 2009 | Mudu Fund-06 | RBS | 2,000,000 | 200,000 | 1,800,000 |
| Mudu Fund-07 | Aug. 21, 2009 – March 31, 2010 | Farmer Learning and Market Linkages Support | Ofada VeeTee Rice Limited | 24,020,000 | 0 | 24,020,000 |
| Mudu Fund-08 | Aug. 10 – Nov. 30, 2009 | Low Cost Rice Threshers – Kano State | SHM Engineers | 690,305 | 690,305 | 0 |
| Mudu Fund-09 | Sept. 1, 2009 – Feb. 28, 2010 | SIF - 09 Agreement | COPOC | 12,261,000 | 12,259,500 | 1,500 |
| Mudu Fund-10A | Oct. 12 – Dec. 31, 2009 | NAEC Training | Agricultural Business Concepts Limited | 100,000 | 100,000 | 0 |
| Mudu Fund-11 | Oct. 12 – Dec. 23, 2009 | Low Cost Rice Threshers | Nova Technologies | 690,305 | 690,305 | 0 |
| Mudu Fund-12 | Jan. 4 – Nov. 15, 2010 | Low Cost Rice Threshers | Nova Technologies | 3,814,600 | 1,731,680 | 2,082,920 |



| Grant No. | Period of Performance | Title of Grant | Name of Grantee | Value of Grant (N) | Amount Paid (N) | Difference (N) |
|------------------------|--------------------------------|--|-----------------|----------------------|----------------------|---------------------|
| Mudu Fund-13 | April 1, 2010 – May 16, 2011 | Tractor Service for SME Farmers | SFAL | 16,000,000 | 16,000,000 | 0 |
| Mudu Fund-14 | Jun. 24, 2010 – March 31, 2011 | Improving Tractor service for SME Farmers in Kaduna, Ogun and Oyo states | FBN | 37,250,000 | 37,250,000 | 0 |
| Mudu Fund-15 | Jun. 1 – Nov. 30, 2010 | On-Track Distribution Partners | Inter Products | 8,400,000 | 1,544,000 | 6,856,000 |
| Mudu Fund-16 | Jun. 1 – Nov. 30, 2010 | On-Track Distribution Partners | Gas Derivatives | 3,150,000 | 869,000 | 2,281,000 |
| Mudu Fund-17 | Oct. 20 – Dec. 22, 2010 | Advocacy and Promotion of Parboilers Loan Product | SMFB | 257,075 | 31,000 | 226,075 |
| Mudu Fund-18 | Jun. 1 – Nov. 30, 2010 | On-Track Distribution Partners | Zee agro | 2,100,000 | 226,500 | 1,873,500 |
| Mudu Fund-19 | Jun. 1 – Nov. 30, 2010 | On Track Distribution Partners | Evans Oragui | 1,050,000 | 0 | 1,050,000 |
| Mudu Fund-20 | Jun. 14, 2010 – Feb. 28, 2011 | Fertiliser access & knowledge in Kaduna State | Tak Agro | 6,000,000 | 1,282,500 | 4,717,500 |
| Mudu Fund-21 | n/a | Filing error | n/a | n/a | n/a | 0 |
| Mudu Fund-22 | March 1 – Oct. 15, 2011 | Institutionalizing Small-pack Promotion Strategy for improving Smallholder Farmers Access to appropriate Farm Inputs and Education | Notore | 22,000,000 | 15,200,000 | 6,800,000 |
| Total Value (N) | | | | N 180,436,802 | N 128,708,307 | N 51,728,495 |

Annex E. Value for Money (VFM) Analysis by Intervention
(All Currency in £)

Intervention Costs

| Intervention Area | Specific Costs | General Costs | | General Management | Training | Workshops | General Tech. | Total |
|---|-------------------|-----------------|-----------------|--------------------|----------------|----------------|-------------------|-------------------|
| | | M&E | Communications | | | | | |
| Policy | £699,411 | £94,846 | £49,981 | £9,404 | £9,702 | £3,365 | £187,632 | £1,054,342 |
| Ag-mech Tractors | £547,056 | £94,846 | £49,981 | £9,404 | £9,702 | £3,365 | £242,754 | £957,108 |
| Ag-mech Threshers | £363,645 | £94,846 | £49,981 | £9,404 | £9,702 | £3,365 | £242,754 | £773,698 |
| Fertiliser | £848,563 | £94,846 | £49,981 | £9,404 | £9,702 | £3,365 | £187,632 | £1,203,494 |
| Financial Services | £431,806 | £94,846 | £49,981 | £9,404 | £9,702 | £3,365 | £187,632 | £786,737 |
| Rice Parboiling | £199,875 | £94,846 | £49,981 | £9,404 | £9,702 | £3,365 | £187,632 | £554,806 |
| NAEC | £18,212 | £94,846 | £49,981 | £9,404 | £9,702 | £3,365 | £187,632 | £373,143 |
| Other Interventions (<i>ofada, soya, BDS etc.</i>) | £287,073 | £94,846 | £49,981 | £9,404 | £9,702 | £3,365 | £187,632 | £642,003 |
| Total | £3,395,641 | £758,766 | £399,851 | £75,235 | £77,616 | £26,922 | £1,611,302 | £6,345,332 |

Intervention Leverage

| Intervention Area | 2011 | | | | |
|---|-----------|----------|--------------------------------|----------|--------|
| | Outreach | | Leverage (GBP per beneficiary) | | |
| | Direct | Indirect | Direct | Indirect | Total |
| Policy | 184,825 | - | 5.7 | - | 5.7 |
| Ag-mech Tractors | 9,495 | - | 100.8 | - | 100.8 |
| Ag-mech Threshers | 2,182 | - | 354.58 | - | 354.58 |
| Fertiliser | 1,001,334 | 60,779 | 1.2 | 19.80 | 1.13 |
| Financial Services | - | - | - | - | - |
| Rice Parboiling | 72,945 | 7,730 | 7.61 | 71.77 | 6.88 |
| NAEC | 1,145 | 6,883 | 325.89 | 54.21 | 46.48 |
| Other Interventions (<i>ofada, soya, BDS etc.</i>) | - | - | - | - | - |

| Intervention Area | 2013 | | | | |
|---|-----------|----------|--------------------------------|----------|-------|
| | Outreach | | Leverage (GBP per beneficiary) | | |
| | Direct | Indirect | Direct | Indirect | Total |
| Policy | 184,825 | - | 5.7 | - | 5.7 |
| Ag-mech Tractors | 9,495 | 37,516 | 100.8 | 25.51 | 20.36 |
| Ag-mech Threshers | 2,182 | 13,091 | 354.58 | 59.10 | 50.66 |
| Fertiliser | 1,001,334 | 975,804 | 1.2 | 1.23 | 0.61 |
| Financial Services | - | - | - | - | - |
| Rice Parboiling | 72,945 | 20,055 | 7.61 | 27.66 | 5.97 |
| NAEC | 1,145 | 6,883 | 325.89 | 54.21 | 46.48 |
| Other Interventions (<i>ofada, soya, BDS etc.</i>) | - | - | - | - | - |

| Intervention Area | 2011 | | | | |
|---|--------|----------|--------------------------------|-----------|-----------|
| | Jobs | | Leverage (GBP per job created) | | |
| | Direct | Indirect | Direct | Indirect | Total |
| Policy | 1,341 | - | 786.24 | - | 786.24 |
| Ag-mech Tractors | 2,244 | - | 426.52 | - | 426.52 |
| Ag-mech Threshers | 20 | - | 38,684.89 | - | 38,684.89 |
| Fertiliser | 862 | 25 | 1,396.16 | 48,139.75 | 1,356.81 |
| Financial Services | - | - | - | - | - |
| Rice Parboiling | 11,878 | 1,263 | 46.71 | 439.28 | 42.22 |
| NAEC | - | - | - | - | - |
| Other Interventions (<i>ofada, soya, BDS etc.</i>) | - | - | - | - | - |

| Intervention Area | 2013 | | | | |
|---|--------|----------|--------------------------------|----------|----------|
| | Jobs | | Leverage (GBP per job created) | | |
| | Direct | Indirect | Direct | Indirect | Total |
| Policy | 1,341 | - | 786.24 | - | 786.24 |
| Ag-mech Tractors | 2,244 | 8,742 | 426.52 | 109.48 | 87.12 |
| Ag-mech Threshers | 20 | 100 | 38,684.89 | 7,736.98 | 6,447.48 |
| Fertiliser | 862 | 775 | 1,396.16 | 1,552.90 | 735.18 |
| Financial Services | - | - | - | - | - |
| Rice Parboiling | 11,878 | 3,236 | 46.71 | 171.45 | 36.71 |
| NAEC | - | - | - | - | - |
| Other Interventions (<i>ofada, soya, BDS etc.</i>) | 0 | 0 | - | - | - |

| Intervention Area | Income | | Leverage (Incremental net income/PrOpCom investment) | | |
|---|---------------|-----------------|--|-----------------|--------------|
| | <i>Direct</i> | <i>Indirect</i> | <i>Direct</i> | <i>Indirect</i> | <i>Total</i> |
| | Policy | 18,836,479 | - | 17.87 | - |
| Ag-mech Tractors | 1,914,560 | - | 2 | - | 2.00 |
| Ag-mech Threshers | 50,021 | - | 0.06 | - | 0.06 |
| Fertiliser | 5,381,312 | 3,662,080 | 4.47 | 3.04 | 7.51 |
| Financial Services | - | - | - | - | - |
| Rice Parboiling | 9,791,831 | 1,024,681 | 17.65 | 1.85 | 19.5 |
| NAEC | 226,132 | 295,997 | 0.61 | 0.79 | 1.40 |
| Other Interventions (<i>ofada, soya, BDS etc.</i>) | - | - | - | - | - |

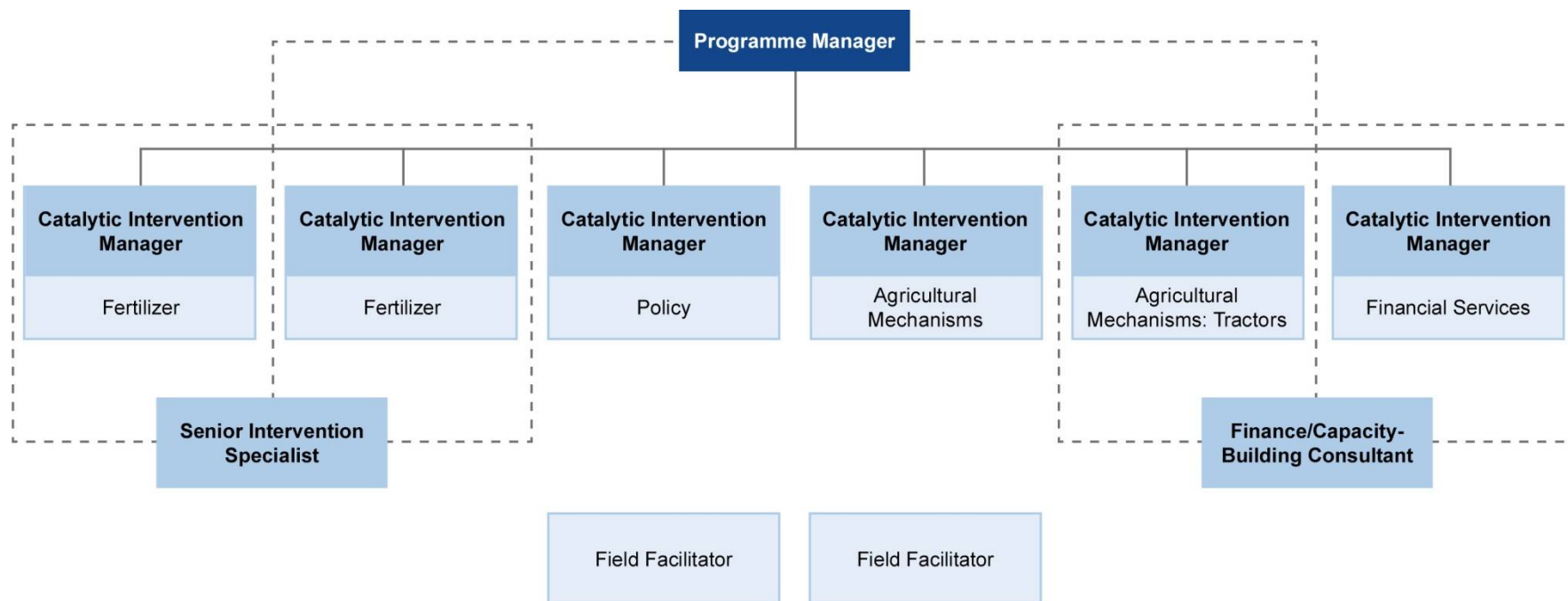
| Intervention Area | Income | | Leverage (Incremental net income/PrOpCom investment) | | |
|---|---------------|-----------------|--|-----------------|--------------|
| | <i>Direct</i> | <i>Indirect</i> | <i>Direct</i> | <i>Indirect</i> | <i>Total</i> |
| | Policy | 18,836,479 | - | 17.87 | - |
| Ag-mech Tractors | 3,829,121 | 14,957,786 | 4.00 | 15.63 | 19.63 |
| Ag-mech Threshers | 100,041 | 700,289 | 0.13 | 0.91 | 1.03 |
| Fertiliser | 16,823,921 | 17,552,294 | 13.98 | 14.58 | 28.56 |
| Financial Services | - | - | - | - | - |
| Rice Parboiling | 10,361,307 | 4,442,898 | 18.68 | 8.01 | 26.68 |
| NAEC | 226,132 | 295,997 | 0.61 | 0.79 | 1.40 |
| Other Interventions (<i>ofada, soya, BDS etc.</i>) | - | - | - | - | - |

| Intervention Area | Investment | | Leverage (Market Investment: PrOpCom Investment) |
|---|---------------|----------------|--|
| | <i>Public</i> | <i>Private</i> | <i>Total</i> |
| | Policy | 19,446,954 | 3,065 |
| Ag-mech Tractors | - | 4,314,869 | 4.51 |
| Ag-mech Threshers | - | 22,275 | 0.03 |
| Fertiliser | - | 560,237 | 0.47 |
| Financial Services | - | - | - |
| Rice Parboiling | 184,293 | 67,882 | 0.45 |
| NAEC | - | 10,015 | 0.03 |
| Other Interventions (<i>ofada, soya, BDS etc.</i>) | - | 6,090 | 0.01 |

| Intervention Area | Investment | | Leverage (Market Investment: PrOpCom Investment) |
|---|---------------|----------------|--|
| | <i>Public</i> | <i>Private</i> | <i>Total</i> |
| | Policy | 22,670,877 | -3,605 |
| Ag-mech Tractors | - | 4,314,869 | 4.51 |
| Ag-mech Threshers | - | 22,275 | 0.03 |
| Fertiliser | - | 560,237 | 0.47 |
| Financial Services | - | - | - |
| Rice Parboiling | 184,293 | 202,647 | 0.70 |
| NAEC | - | 10,016 | 0.03 |
| Other Interventions (<i>ofada, soya, BDS etc.</i>) | - | -6,090 | 0.01 |

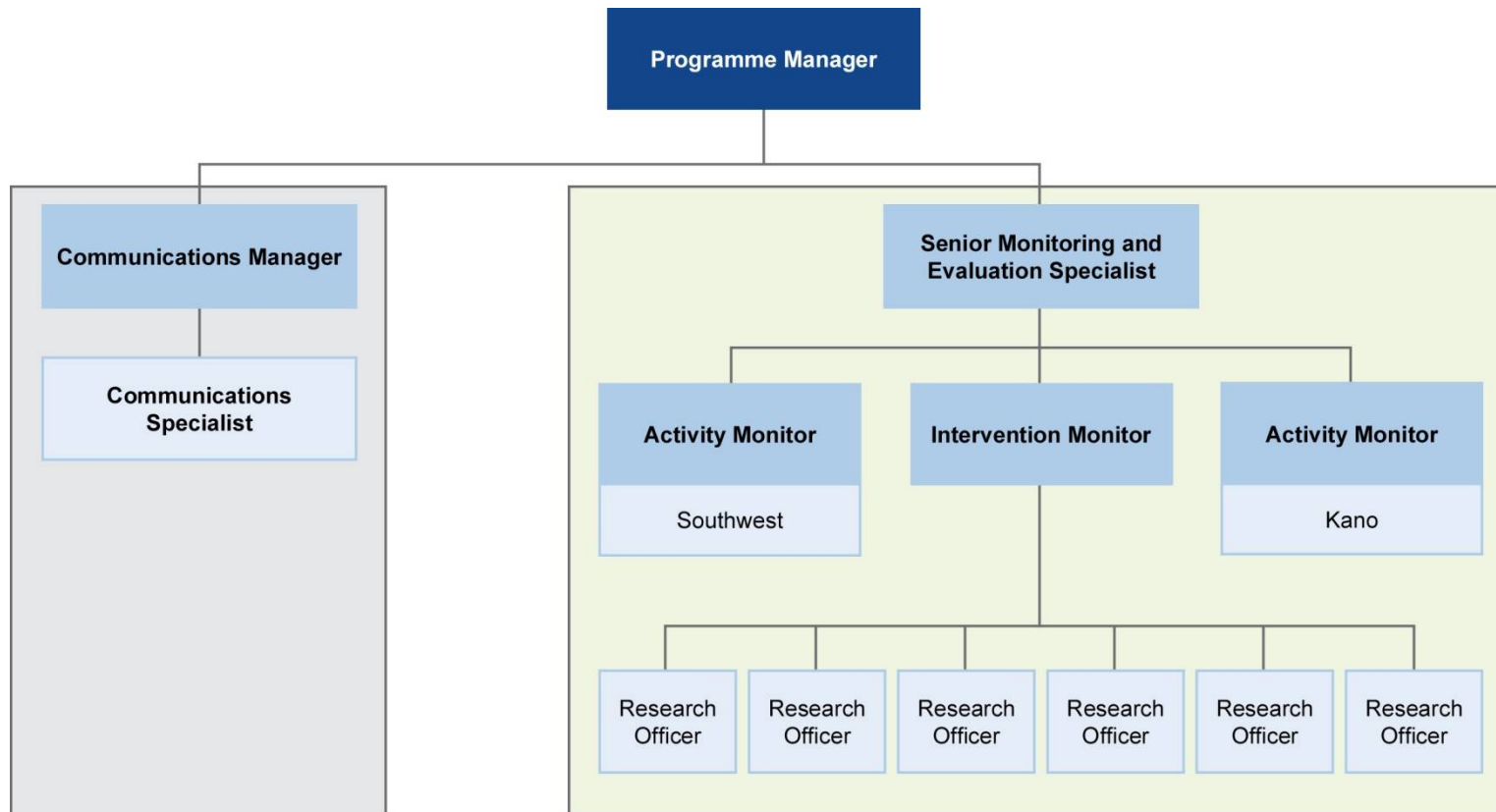
Annex F. Organisational Structure Charts

Figure 1. Intervention Team



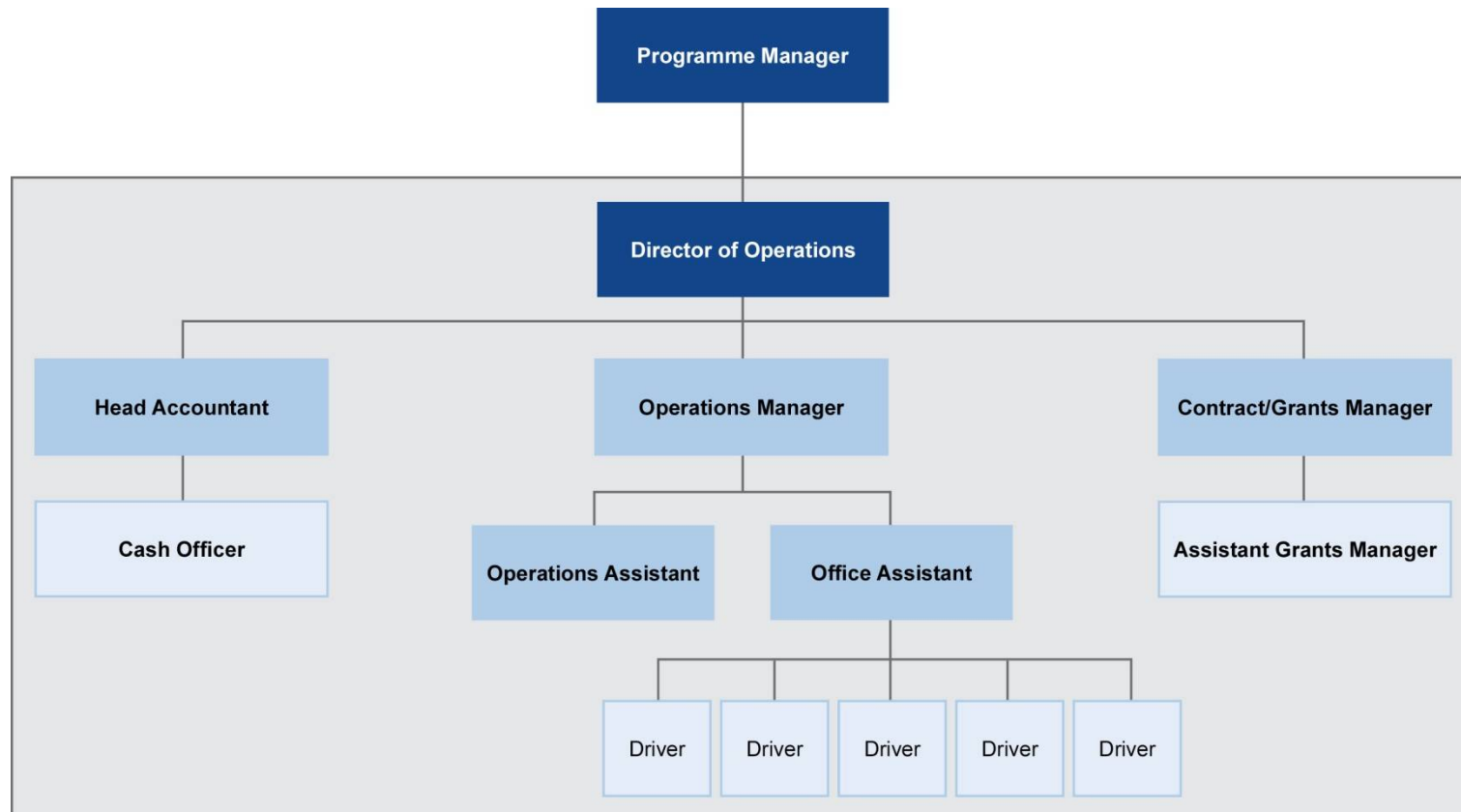
* Senior Intervention Specialist and Finance/Capacity-Building Consultant provide support and mentoring to Catalytic Intervention Managers. Field Facilitators report to Catalytic Intervention Managers and the Programme Manager.

Figure 2. Communications and Monitoring and Evaluation Teams



* Activity Monitors are based in the field. Research Officers are based in the field and are assigned to monitor specific geographic locations.

Figure 3. Operations Team



Annex G. References to Key Impact Materials and Published Reports

PrOpCom Case Study Series

- [Making Fertiliser Markets Work for the Poor in Nigeria](#)
- [Making Tractor Markets Work for the Poor in Nigeria](#)

PrOpCom Monograph Series

- [A series of 37 surveys and reports conducted by external consultants](#)

Intervention Profiles

- [Fertiliser Intervention Profile](#)
- [Rice Parboiling Intervention Profile](#)
- [Tractor Intervention Profile](#)

Videos

- Tractor Intervention: *A Farm-tastic Future (30 minutes)*
- Fertiliser Intervention: *A Fertile Alternative*
 1. [Farmers' Perspectives on Nigeria's Fertiliser Market \(4 minutes\)](#)
 2. [Nigeria's Fertiliser Policy \(6 minutes\)](#)
 3. [Capturing Nigeria's Fertiliser Market Opportunity \(5 minutes\)](#)
- Gender Impact: *Give Them Some Credit!*
 1. [Agricultural Loans for Nigeria's Women \(4 minutes\)](#)
 2. [Income and Influence for Nigeria's Rural Women \(5 minutes\)](#)

Beneficiaries' Stories

- Adamawa State Fertiliser Policy Intervention
 - [Dr. Louis S. Mandama: Permanent Secretary of the Adamawa state Ministry of Agriculture](#)
- Fertiliser Intervention
 - [Kawu Umar: Notore Village Promoter](#)
 - [Sidi Bweta: Maize and sorghum farmer](#)
- Ogun State Rice Policy Intervention
 - [Alhaji Monsuru Ajayi: Ofada rice farmer and miller](#)
- Rice Parboiling Intervention
 - [Aisha Ibrahim: Kano Parboiler](#)
- Tractor Intervention
 - [Isaac Adesope: Tractor service entrepreneur](#)