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THE EVALUATION REPORT FOR MAXIMIZING AGRICULTURE REVENUE AND KEY ENTERPRISES IN TARGETED SITES (MARKETS)

REPORT

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ACRONYMS & ABBREVIATIONS

ABC	Agricultural Business Concepts Ltd.
ACGSF	Agricultural Credit Guarantee Scheme Fund
ADP	Agricultural Development Program
AGOA	Africa Growth and Opportunities Act
AGRA	Alliance for a Green Revolution in Africa
AVC	Agricultural value chain
BNARDA	Benue Agricultural and Rural Development Authority
BOA	Bank of Agriculture
BtM2	Bridge to MARKETS2
CAADP	Comprehensive Africa Agriculture Development Program
CAFAN	Cat Fish Farmers Association of Nigeria
CBN	Central Bank of Nigeria
CBOs	Community-based organizations
CMG	Corridor Management Group
CSMS	Cassava Supply Management System
DDI	Diamond Development Initiative
DEC	Development Exchange Centre
DFID	UK Department for International Development
EA	Extension Agent
ECOWAS	Economic Community of West African States
Fadama	Hausa name for irrigable land usually low lying plains
BN	First Bank of Nigeria
FCT	Federal Capital Territory
FFD	Federal Fertilizer Department
FGD	Focus Group Discussion
FGN	Federal Government of Nigeria
FMARD	Federal Ministry of Agriculture and Rural Development
FNSP	Family Nutritional Support Program
FVP	Fertilizer Voucher Program
GON	Government of Nigeria
GFSR	Global Food Security Response
HA	Hectare
IAR	Institute of Agricultural Research
ICRISAT	International Crops Research Institute for the Semi-Arid Tropics
IFDC	International Center for Soil Fertility and Agricultural Development
IFPRI	International Food Policy Research Institute
IITA	International Institute of Tropical Agriculture
IP	Implementing partner
KADP	Kaduna Agricultural Development Project
KNARDA	Kano Agricultural and Rural Development Authority
KII	Key informant interview
LAKAJI	Lagos Kano Jibiya
LAPO	Lift Above Poverty Organization
LGA	Local Government Area
LOP	Life of Project
MARKETS	Maximizing Agricultural Revenue and Key Enterprises in Targeted Sites
MDAs	Ministries Departments and Agencies

MFI	Microfinance Institution
MOU	Memorandum of Understanding
MT	Metric ton
NAFDAC	National Agency for Food and Drugs Administration and Control
NAEC	Nigerian Agricultural Enterprise Curriculum
NAIC	Nigerian Agricultural Insurance Corporation
NANTS	National Association of Nigerian Traders
NCS	Nigerian Customs Service
NGO	Nongovernmental organization
NPFS	National Program for Food Security
NSM	Nigeria Starch Mills
OVC	Orphans and vulnerable children
PEPFAR	President's Emergency Plan for AIDS Relief
POP	Package of practices
PRISMSRVL	Promoting Improved and Sustainable MSME Financial Services Project
REMS	Remif Ventures Ltd
REMSRUTF	Ready to use therapeutic food
SSA	Sub Saharan Africa
SG2000	Sasakawa Global 2000
SON	Standards Organization of Nigeria
SoW	Scope of Work/Scope of Work
ToT	Training of trainers
UBA	United Bank for Africa
WASA	West African Seed Alliance
WEE	Women's Economic Empowerment

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EXECUTIVE SUMMARY

PROJECT BACKGROUND AND PURPOSE

USAID/Nigeria's Maximizing Agricultural Revenue and Key Enterprises in Targeted Sites (MARKETS) was a multi-faceted six and a half-year pilot program designed to strengthen agricultural competitiveness and food security in Nigeria. The program began in 2005 with a budget of \$24 million which later increased to \$51.6 million by the time the project closed in December 2010; after which the project was extended for 16 months (January 2011 through April 2012) with an additional \$9.5 million through the Bridge to MARKETS II (BtM2) project. The project was managed by Chemonics International with international and local sub-contractors, MARKETS employed a private sector-led, comprehensive value chain approach that identified commercial buyers and facilitated inputs that supported farmers to meet market standards and a guaranteed buyer. By the close of the program, MARKETS had worked with 10 major commodities: rice, cowpea, aquaculture, dairy, white sorghum, yellow sorghum, sesame, cassava, cocoa, and maize in 31 States and the FCT. Some value chains were dropped mid-project (e.g. dairy) while others were added from 2010 (maize and cocoa)., Food security and nutrition, trade, transport and agricultural policy components were added in December 2008.

FINAL EVALUATION BACKGROUND AND PURPOSE

This final evaluation fieldwork of the MARKETS program was conducted by The Mitchell Group in June and July 2012. The evaluation was commissioned by USAID/Nigeria Mission with the aim to determine whether the goals and objectives of MARKETS were met; establish how effectively MARKETS interventions were delivered; assess project outcomes; assess the extent to which the project affected its beneficiaries; determine whether the USG investment in the program received the greatest possible return; and learn lessons that will guide the implementation of MARKETS II. The final evaluation was guided by eight key evaluation questions on project design, implementation and outcomes.

The report is organized into six chapters. Chapter 1 is the introduction. Chapter 2 is a presentation of the evaluation findings¹ for the five MARKETS core value chain services - agricultural inputs, training and extension, production and yields, credit and processing/agro-industries. Chapter 3 covers the evaluation findings for the four cross-cutting areas - food security and nutrition, trade, transport and agricultural policy and gender. Chapter 4 assesses the effectiveness of MARKETS M&E system. Chapter 5 highlights the constraints and challenges faced during the course of MARKETS implementation. Chapter 6 covers the conclusions and recommendations based on the findings by the evaluation team. Annexes that provide more detail to various components of this report have been attached.

SURVEY DESIGN AND METHODOLOGY

To arrive at answers to the evaluation questions, the Evaluation Team used quantitative and qualitative data collection techniques. The Team also used triangulation on data generated from various methods: i) Document review; ii) Focus Group Discussions (FGDs), iii) Key Informant Interviews (KII); iv) MARKETS M&E data; v) MARKETS 2010 Project Assessment; and vi) Field visits to 9 States that were purposively selected based on history and density of project activity, total investments, success and failures and relative security.

¹ Evaluation findings are organized and presented to respond to the eight evaluation questions underlying this assignment.

EVALUATION FINDINGS

1. **Were activities implemented as planned? To what extent did the MARKETS project meet the needs that led to this project? Do those needs still exist and are there other related needs that have arisen that the project did not address?**

- Were activities implemented as planned? Yes and No

The evaluation found that while most MARKETS interventions and/or aspects thereof were implemented as planned, some were not. Implementation sometimes differed from one commodity chain to another and from one location to another.

Inputs: MARKETS reports and outcomes of seeds R&D activities pointed to a program ‘implemented as planned’. High yielding and adapted seeds developed resulted in the development of various seed production and marketing networks across the AVCs, with direct participation of some end users. The supply of seeds to farmers was however, timely in some cases but late in others. MARKETS agro-chemical activities of training and linkages between farmers and suppliers were reported as implemented in a timely and satisfactory manner by both farmers and trainers. The quantity of fertilizer sold by the private sector was never tracked by MARKETS until the launch of the fertilizer voucher program (FVP) in 2009. By the end of the program in 2011 only 51,113 MT of fertilizer was recorded as sold through private sector participation in the supply chain, against the 2.5million MT anticipated. Fertilizer sold outside of the FVP was not tracked. Agricultural machinery was introduced ad hoc by MARKETS field service providers.

Training and extension: MARKETS achieved 96% of its training targets of farmers (305,833 vs. 317,663) through step down training. 244% of its target of producer groups were trained (18,273 vs.7,484) but only 16% of a very ambitious training of trainers’ targets associated with World Banks’ Fadama III in 2010.

Production and yields: Twenty eight improved production methods^[1] were introduced to farmers through training and field demonstrations, substantially removing the binding constraints for productivity and improved output. 633,833 farmers adopted new technologies against a target of 840,000 (75%). Farmers adopted 100% of the technologies made available. Yields increased 200% - 300% while income rose 100% - 200% baseline levels. MARKETS facilitated tripartite purchase agreements (MOUs) between the farmers, their agro-processors and the financing bank but were however, not implemented as planned.

Agro-Processors: All the agro processors interviewed during the evaluation maintained that all activities with MARKETS were executed as planned. The activities were also timely and met their specific needs sufficiently. Overall aggregate achievements exceeded aggregate targets with respect to volume of commodities processed.

Credit: MARKETS exceeded the LOP indicator (LOP = \$57,000,000) on the amount of credit leveraged by 14% due to its innovative approach to credit development. MARKETS developed a tripartite agricultural credit system involving farmers, formal credit institutions and agro processors. While these activities were implemented as planned with MARKETS, they were not adequate and successful from the point of view of some of the farmers and some banks, but most agro processors were satisfied with the way activities were implemented under this component.

Food Security, Nutrition, Gender and Policy: Despite coming two years into the MARKETS AVC program, MARKETS was able to implement the food security, nutrition and gender (through the family nutritional support program - FNSP). FNSP activities which were generally geared towards women, targeted Orphans and Vulnerable Children (OVCs) and vulnerable households and included nutritional supplements, microenterprise skills training and an integrated nutrition and livelihood training program. Policy activities

^[1] These included seed selection, handling and use, sowing, spacing, plant thinning, fertilizer selection, supply, use and application, supply and use of chemicals/other labor saving methods, crop, soil, and water management methods including pest, disease and environmental control and management, harvesting methods, handling, bagging and post-harvest technologies.

which focused on studies and reporting for briefs and papers towards reform in trade, transport and agricultural policy, were implemented as planned.

- To what extent did the MARKETS project meet the needs that led to the project?

The evaluation findings indicate that with some exceptions, MARKETS interventions were able to meet the needs that led to the project. All planned inputs interventions largely met the goals of - quality/yields, end user standards; technical and market information; strengthened private sector delivery transparency; and reduced government involvement - for which they were included in the project.

MARKETS on-farm training reached 96% of the target of smallholder farmers who often have limited skills in agro best practices and access to production technologies. Two- and three-fold increases in production yields were the primary benefit from these trainings and outreach. The MARKETS project met the need for credit to some extent. Very few farmers had prior access to formal credit and with a guaranteed market for their commodities; the banks were willing to provide credit to farmers. But some banks had little or no experience with agricultural sector lending. Information from discussions with MARKETS agro processors suggested that the project met their needs for consistent raw material supply, technology, access to credit and training.

Findings of the 2010 program assessment suggested that MARKETS FNSP activities did promote positive behavior change in food insecure households and positively affected food availability, access and utilization. Regarding policy, activities carried out by MARKETS subcontractors provided support for improving Nigeria's broader business and investment climate, not necessarily policy issues that directly affected MARKETS value chain development activities.

- Do those needs still exist?: Yes.

"Yes, let the program go round" (words of a FNSP respondent). Some of these needs still exist and many other Nigerians could still benefit from MARKETS interventions. For instance, the availability and timeliness of input supply need to be improved. Including women-specific commodities in the VCs would enhance women's participation, expand/strengthen the value chain and promote equity and women's empowerment. The FVP is far from reaching the goal of becoming a national program. There is need to continue to sensitize and educate all stakeholders on advantages of the fertilizer privatization.

Additional (emergent) needs that need addressing to strengthen and promote sustainability of the agricultural value chains include: intensification of training and expansion to new farmer groups; and development of mechanisms that will provide access to appropriate agricultural machinery in order to increase efficiency at the farm level. Credit is central to these needs but they are still delays in credit administration, limitations on volume of funds, lack of professional understanding about agricultural lending and cost of funds in the formal banking sector. The project has to device innovative approaches and strategies to navigate through these challenges to meet farmer and agro processor credit needs.

MARKETS' policy research needs to also focus on addressing the micro-economic policy issues that have affected value chain development, such as entrenching an effective farm agribusiness contracting system in a way that is implementable or actionable.

2. What features of the project design/approach proved to be instrumental in achieving project's results?

The evaluation established that five aspects of the MARKETS design and implementation were very instrumental to achievement of projects results. These are: a guaranteed market, well adapted practical training and field demonstrations, in-kind input loans, institutional collaboration and group lending.

MARKETS' market-driven AVC approach which started by identifying a buyer and then encouraging farmers to produce what sells, stands out as a key factor that promoted farmers and processors commitment to MARKETS and resultant outcomes, as this strategy proved to be a win-win for all. The **guaranteed market** met farmers' produce marketing needs and also met the needs of processors for a consistent supply of quality raw materials. Agro-processors, through their multifaceted activities – produce buyers, training and support to farmers, input and credit supply and/or guarantee for farmers, pioneering of events for key agro industrial actors, etc. - are the pivot of the MARKETS value chain development activities.

Adapted practical training and on-site field demonstrations were brought out as instrumental to the achievement of project results across all MARKETS interventions. Demonstration sites also created a multiplier effect by attracting additional farmers. Training of trainers and the step down approach was a cost effective method for information dissemination to the large target population of producers and processors. **In-kind input loans** were also identified by farmers as having been instrumental in easing their adoption of new technologies, and the resultant gains in yields and income have better prepared them to buy these inputs going forward than would have otherwise been the case. **Group lending** based on cross guarantees by group members under the non-collateral based agricultural credit guarantee scheme, where the identified agro processor also provided a guaranteed market and a guarantee for farmer bank loans, also proved instrumental in achieving project's results. The **collaborative approach**, a key feature across all MARKETS interventions was also very instrumental to success.

According to FNSP respondents, what contributed most to the success of the program was the fact that it was built on felt need, thanks to the community assessment.

3. How satisfied were beneficiaries with their involvement in MARKETS?

Beneficiary satisfaction with MARKETS was mixed. Satisfaction however, generally outweighed dissatisfaction, and was higher for certain interventions and/or aspects thereof, than others.

Farmer beneficiaries were generally satisfied with seeds and agro-chemical **input** interventions but not with fertilizers, due to issues of late fertilizer delivery, redemption of vouchers, insufficient quantities, high open market prices, as well as emerging concerns over fertilizer quality and dependability of local fertilizer-dealers. Farmers, women and men (80-89%) were highly satisfied with **production related training and extension activities** and with increased farm yields and their involvement in MARKETS as a whole; and 67% were satisfied with incomes. Dissatisfaction was most pronounced (47% of farmer groups) regarding their ability to access **credit** from banks due to the fact that bank loans were untimely, inadequate, and expensive and according to them “the banks do not understand our business”. However, the **agro processors** who also generally saw their collaboration with MARKETS as positive and very satisfactory, were very satisfied MARKETS facilitated **credit** linkage as it helped them expand their business activities. Some **banks** were also satisfied with the linkages while some others were not satisfied due to losses they incurred. FNSP respondents in Kano rated the program 100% with regard to implementation, collaborative work and positive impact on beneficiaries' businesses and children's welfare. **Policy** stakeholders were satisfied with the participatory and transparent implementation processes.

4. To what extent did adjustment in project activities contribute to producing greater results?

The evaluation has established that adjustments made over the course of the MARKETS project were based on good judgment and changing priorities and they generally contributed to improving project results to meet the changing needs and priorities of USAID and the country context.

A number of adjustments were made over the course of the MARKETS project - dropping non viable commodity chains, including viable ones, and picking the opportunity of available funds to expand activities into other sectors deemed relevant to the project. For instance MARKETS dropped dairy in June 2008 and

upon receipt of new funding (PEPFAR and GFSR) six months later, immediately expanded its activities in 2009 to include the FNISP/Gender, the FVP and policy activities, cassava and a seeds improvement activity in collaboration with WASA and ICRISAT; and launched maize and cocoa in 2010. Such flexibility in project implementation permitted MARKETS to network more farmers and carry out more collaborative activities that proved vital to project success. Adjustments arising from the new funds contributed to producing greater project results on credit especially for women borrowers through FNISP livelihood activities and the de-scoped PRISMS activities into the project.

On the other hand, the expansion seems to have put a stress on achieving the new MARKETS' targets set in anticipation of the new funds for key indicators like "revenue generated" and "new jobs credited." Targets were much higher than actual achievements for 2009 and likely reflected typical programmatic lags associated with adding new components and/or ramping up existing activities

5. How effective was MARKETS work with collaborating organizations/institutions towards project implementation and project outcomes?

The evaluation has established that overall, MARKETS collaboration with other organizations, institutions and value chain stakeholders was a key factor that promoted project implementation and achievement of outcomes.

MARKETS AVC and related interventions were all based on collaborative efforts with relevant local and international partners and stakeholders - the GON, other NGOs, service providers, R&D institutions, and private sector agro-industries and financial institutions. Through these collaborative efforts MARKETS leveraged best practice in skills, experience, technological innovations, resources and local knowledge and these effectively contributed to the achieved project outcomes across all MARKETS interventions². And while there is still much left to be done in areas such as the fertilizer sector, MARKETS FVP activities have created an environment in which the public and private sector could work together more efficiently to overcome emerging and persistent challenges.

MARKETS dealings with international institutions such as the World Bank were however, not always satisfactory or effective with regards to MARKETS' project outcomes due to contractual delays or uncertainties around complimentary donor training programs such as FADAMA. Similarly, MARKETS collaboration with financial institutions effectively linked farmers to formal credit institutions, but the loan administration to farmers was sub optimal.

6. How effective was the MARKETS M&E system in tracking implementation progress, evaluating value chain performance, and measuring project outcomes

The effectiveness and consistency of the MARKETS M&E system varied across different interventions and/or aspects thereof.

The M&E system was most robust and proven in the measurement of easily quantifiable physical and financial aspects of the project such as - areas cultivated, yields, income/revenue, number/amount of loans, jobs created, etc. It was not as clearly designed to capture outcomes such as changes in skills, attitudes and behaviors in any systemic manner. The M&E system was thus not as effective in tracking progress, performance and outcomes of training and extensions activities as it was for production, credit and processing activities. One area in which the MARKETS M&E system was fairly consistent and effective was the FNISP. Despite initial M&E challenges with the FNISP due to co-implementation with PEPFAR IPs, MARKETS rapidly incorporated remedial M&E measures, starting with a simple reporting template, before

² From inputs, through training/extension services, credit, processing to policy interventions.

finally incorporating more FNSP-specific indicators into the 2010 PMP that effectively tracked and reported on the performance of the program.

Overall however, there were no baseline values on most of the indicators to allow for objective assessments of the achievements recorded or consistency in tracking the indicators on a quarterly and annual basis, especially with regards to targets. Disaggregated data on some of the indicators, such as productivity and volume of commodities processed, did not add up to year-end-totals. In some cases there were inconsistencies between LOP and cumulative targets, raising questions about the effectiveness of the M&E system as it seems that the planned targets over the years were not aligned with the LOP target. And lastly, while M&E activities were vigorous and jointly carried out by MARKETs and relevant stakeholders, M&E data and feedback information was generally collected and kept by MARKETs and was not formally shared. The M&E system could have been strengthened beyond vigorous field work by an equal measure of information sharing and review among stakeholders. Also, although recommended by MARKETs 2010 assessment, the M&E system has still not incorporated quasi-experimental aspects that would help address the question of attribution.

7. To what extent did the beneficiaries (farmers, agro dealers, commodity groups) experience expected changes in their skills, knowledge, attitudes, behaviors, yields, income, etc.? To what extent did the project impact the intended population and the targeted number of beneficiaries?

- To what extent did the beneficiaries (farmers, agro dealers, commodity groups) experience expected changes in their skills, knowledge, attitudes, behaviors, yields, income, etc.?

As noted previously, MARKETs can demonstrate changes in production, output and income generated from having a guaranteed market. But the M&E system was not designed to capture changes in skills, attitudes and behaviors. As a result, generalizations cannot be made in response to this question. Apart from the case of the FNSP in which behavior changes were tracked and reported, there were some limited observations of behavior change – positive and negative, for the credit component. Information from some banks (e.g. BOA) shows that some farmer groups returned in subsequent years for loans suggesting a change in farmer attitudes and behavior to formal bank credit. But the loss experienced by First Bank in Makurdi changed the banks' attitude and generated apathy for agricultural credit due to non loan repayment by farmers in the OLAM rice value chain.

- To what extent did the project impact the intended population and the targeted number of beneficiaries?

While some of MARKETs interventions have had mixed or minimal results, the bulk of them have had positive impact on beneficiaries.

Overall MARKETs input interventions have had positive impacts on both farmers and input suppliers. Seeds have received great uptake by farmers and increased crop yields, and catalyzed the emergence of other private sector supported collaborative seeds development initiatives. Agro-chemical activities have triggered the development of new private sector agro-chemical businesses in some cases but met with indifference in others. Despite persistent challenges in the fertilizer sector, the FVP has strengthened private sector delivery networks and commitments by state governments to distribute fertilizers in a transparent and open process; facilitated fertilizer suppliers' access to new markets/incomes; improved access to fertilizers for small farmers³; and created an platform for public-private dialogue.

MARKETs training and extension activities did impact the intended population and target number of beneficiaries if one accepts that reaching 96% of its target can be considered successful as this evaluator believes it is. All introduced technologies were adopted and records show that 75% of directly networked farmers across the value chains did adopt the technologies; increasing yields and income as described earlier.

³ Participating fertilizer suppliers and local dealers generated almost \$32 million in fertilizer sales, selling 51,113MT directly to small farmers in four states between 2009 and 2011.

The on-going step-down training of other farmers groups by the networked farmers, which has resulted in a significant spillover of skills in the intervention areas, is evidence of the enhanced capacity of the networked farmers.

The project impact with respect to credit was mixed. Credit for value chain activities was low (26%) relative to credit provided for livelihood activities. Agro processors gained most from credit and expanded and diversified their businesses significantly. Impact of agricultural loans to farmers were also mixed as some farmers found the loans useful for their agricultural value chain business while others found the institutional barriers posed by the banks a challenge. Experiences with the banks were also mixed as those who lost income may not continue with agricultural credit activities at least in the short term. Other banks like the BOA find the MARKETS linkage of farmers to credit sustainable beyond the life of the project. In just 24 months the FNSP was able to promote substantial positive behavior change in food insecure households and pave the way for similar private sector led food security and nutrition initiatives. Capacity on evidence-based policy analysis and advocacy was strengthened for both public and private stakeholders - and they were exposed to new tools of analysis for trade policy development and review. Also, a better Public-Private-Partnership platform was developed and public-private dialogue enhanced.

8. As a pilot, how likely is it that the long-term outcomes of the project will be achieved?

The evaluation findings suggest that most MARKETS interventions and outcomes have potential for longer-term sustainability; some with less additional effort and than others.

MARKETS seeds interventions which have received excellent uptake by farmers, increased yields and catalyzed the emergence of other private sector supported collaborative seeds development initiatives, have great potential for longer term sustainability. To boost longer term sustainability there is need to put in place measures to prevent the emerging vested and conflict of interest portrayed by the issue of sorghum seed quality. The FVP is overall a good initiative within an environment still very much influenced by past practices. And as rightly pointed out by the IFDC, the successes have created an environment in which the public and private sector could work together more efficiently to overcome emerging and persistent challenges. The Evaluation Team feels that success will be enhanced if states willing to improve their procurement and distribution systems are targeted going forward to trigger the type of momentum that would eventually attract the states that are still not so committed to change. This should be coupled with ongoing education and sensitization of farmers and private fertilizer suppliers.

MARKETS interventions have led to an informed consumer and paved the way for the growth of private sector dealerships in good quality agricultural chemicals. But the growing adoption of herbicides needs to be carefully monitored for reasons of environmental, health and longer term sustainability. As indicated earlier, mechanization has also emerged as an area of great need and great potential. Timely delivery of inputs and related services is however, tied to farmers' access to credit. Direct linkage to credit through in-kind loans which was instrumental in the success of the inputs component is something to consider maintaining going forward as MARKETS II works with commercial banks to improve delivery of agricultural credit.

Since MARKETS credit engagements with banks were mixed – some successful/sustainable and others unsuccessful/unsustainable, this provides insights to better plan the credit component in MARKETS II. The mixed experiences and lessons from the pilot project provide a basis for the project to target its credit activities and optimize the size of its out grower schemes within manageable limits to improve loan administration. Adjustments in light of these lessons will likely improve the long term outcomes of the project. It is also important at the program level to put greater focus on linkages to loans for agricultural activities while consciously building the capacity of commercial bank staff on agricultural lending.

The advancements in improved agricultural crop varieties, inputs and cultivation practices that were introduced by MARKETS training and extension activities are likely to be self sustaining if agro processors continue to offer farmers a guaranteed market and other services. MARKETS II must reinforce and deepen the knowledge base of the farmers who received training and extension under MARKETS. The business side of farming needs additional concentration especially in the areas of financial management and marketing. Despite successes of the FNSP, the Evaluation Team's opinion is that nutritional supplements, micro-enterprise training and small homestead gardens, are but part of the solution to Nigeria's major food security challenges; tackling which would require a much broader integrated approach that might go beyond MARKETS' current interventions.

As a central pivot of MARKETS project development, agro processors' existence over the long term depends on the business environment especially as it relates to issues of security and enabling policy and business environment. The collapse of any of the agro processors implies a collapse of the specific commodity value chain. USAID/MARKETS therefore needs to work both at the field and policy level to ensure the long term outcomes of the project. Regarding policy interventions, as noted in the 2010 MARKETS Assessment, actionable research is key to moving the agricultural sector forward as well as stakeholder commitments and concrete investments of resources to implement recommendations and broaden participation and stakeholder engagement. Persistence of effort and additional leverage are needed for the policy reforms to proceed.

CONCLUSIONS AND RECOMMENDATIONS

In general, the value chain approach had a positive impact on the farm level and with agro processors. Production and quality increased two- and three-fold. The value chain approach of this pilot demonstrated notable success stories in linking farmers to formal credit and guaranteed markets. There is still a vast ongoing need for access to credit, consistent output and meeting quality standards of the marketplace. A constraint is that Nigeria small holder farms are still very labor intensive and inefficient. The good news is that the introduction of new technologies was well received and the new production technology adoption rate of was 100 percent. Beneficiary satisfaction is one of the main achievements of the MARKETS pilot program. Satisfaction was very high with increases in yields and related incomes. The beneficiaries expressed their strong interest in ongoing knowledge through trainings and demonstrations as well as improved and certified inputs like seeds, agrochemicals and fertilizer. Likewise the agro processors were largely satisfied with the MARKETS activities and program staff, and most important the results of increased value added commodities and products (132% of the MARKETS target). MARKETS II has been launched and is going more deeply into a fewer number of value chains that meet the current programmatic criteria and priorities—food security and nutrition, income and job creation and greater benefits to women and youth among others. Following are our primary recommendations that have evolved from the six year MARKETS pilot.

Inputs:

- In the future, seed quality should be more closely monitored to ensure that quality standards are maintained and that there are guidelines to prevent a potential conflict of interest of private seed providers
- Those states willing to improve their procurement and distribution systems be brought onboard during the next phase of the FVP, first to trigger the type of momentum that would eventually attract the states that are still not so committed to change. There is also need to continue to educate and sensitize farmers and private sector agro-dealers about the advantages of free and transparent fertilizer markets
- USAID/MARKETS could leverage its fertilizer experiences and partnerships to collaborate with the GON and other donors to facilitate a private sector pilot of fertilizer compositions that match specific soil and crop needs.

- More attention needs to be paid to the growing use of herbicides through the zero tillage technique USAID/MARKETS II consider taking this up further with the GON, other experts and through the training of trainers and farmers.
- MARKETS could consider supporting S-G 2000 and other private sector agricultural machinery organizations by linking them to potential partners that could facilitate commercialization and scale up of the prototypes in response to the emerging need for mechanization among MARKETS' beneficiaries.

Training and Extension:

- The selection of highly motivated partners to train and certify other trainers, is essential and a feedback mechanism should be in place to correct or replace underperforming service providers. Build capacity of local service providers who have proven to be committed to social and economic transformation.
- Increase the provision of family business/micro entrepreneurship, decision making and leadership skills which will be of particular benefit to women and youth. There is now a growing body of knowledge on measuring changes in women's and youth's behaviors and decision making that can and should be adopted by MARKETS II in assessing changes in the behaviors, attitudes, family roles and income.
- Develop a quasi-experimental design to rigorously isolate results—e.g., behaviors to income generation-- that might have occurred without project intervention. Baseline data is essential.
- On sustainability, stakeholders, including financial and public institutions and governments, should be included in relevant training and capacity building programs so as to bring them in and increase their commitment to what has been achieved so far.

Production:

- MARKETS should consider reviewing the entire marketing arrangement particularly the implementation and enforceability of the Purchase Agreement/MOU between farmers, processors and the banks.
- The project should also consider assisting to diversify market outlets for the farmers to increase competition at the marketing end of each value chain.
- Due to farmer illiteracy, emphasis should be laid more on hands-on, practical demonstrations of methods and technologies including those related to management and agri-business for quick and effective adoption.

Credit:

- More training is required in commodities, loan tenor, risk management and loan monitoring. Future MARKETS projects should strive to consciously build the capacity of commercial bank staff on agricultural lending.
- MARKETS II field staff should schedule visits for follow up and monitoring of farmers groups that accessed credit with MARKETS support.
- Optimize (i.e., reduce) the size of out grower schemes within manageable limits to improve loan administration.

Processing and agro industries:

- MARKETS II should strive to encourage stronger relations between the farmers and the out growers. A high degree of trust is required from both parties for a deeper business relationship to grow.
- New out grower schemes should scale up *gradually* as ramping up too quickly poses logistic challenges at the farmer and processor level.
- Address the lack of equipment and mechanization. MARKETS II can begin by the intensification of training and expansion to new farmer groups and development of mechanisms that will provide access to agricultural machinery including tractors, planters, harvesters, winnowers and threshers in order to increase efficiency at the farm level and a consistent *supply of raw material for the agro processors*

Food security and nutrition:

- FNSP should be an integral component of the MARKETS II value chain activity starting with an assessment of dietary and food production patterns to identify nutritional gaps that can be filled through production and product diversification.
- Include commodities that would promote balanced diets in the training program. Include nutrition training as a component of MARKETS in partnership with GON's National Program for Food Security (NPFS) Department.
- MARKETS II could partner with/support the International Institute of Tropical Agriculture and Institute of Agriculture Research's (IAR) biofortification efforts by promoting the uptake of IAR's protein fortified maize variety across the maize commodity chain, as well as tap into other Harvest Plus programmes within the CGIAR system for the AVC programmes.

Policy:

- Facilitate additional public private sector dialogues. This can be achieved through the formation of apex bodies such as a rice alliance, cassava agro processor alliance and/or the strengthening and encouragement of some institutions (say in aquaculture sector) for the specific commodity chains.
- USAID/MARKETS II is encouraged to provide additional leverage and resources to gain traction on what was achieved under MARKETS, and to support policy reform necessary for demonstrative impacts and sustainability. More sector studies, reviews and analyses, as well as stakeholder capacity in evidence generation for policy, are needed.

Gender:

- Integrate gender and specifically Women's Economic Empowerment (WEE) into the MARKETS II project cycle from the very start. Gender should be integrated into the M&E and impact assessment system from the start as well. Baseline data and studies are needed.
- Value chains should be selected with scope for WEE when trade-offs are understood with regard to growth potential of a value chain and a market system that includes many women. Intervention planning should consider and predict the potential impact on WEE.
- On-going dialogue and meetings with key stakeholders about WEE are critical.

Monitoring and evaluation:

- The M&E system could be strengthened by equally strong feedback information sharing and review among stakeholders as was the case with M&E field work.
- There were observed signs of weakness in the M&E performance measurement system. For instance, target number of farmers to be networked was not disaggregated for progressive comparison with actual. Equally, the MARKETS data of 853,111 total clients networked out of the 1,200,000 baseline LOP target was not disaggregated to show clients directly networked separate from those networked indirectly. Likewise, MARKETS M&E records on revenues/income were neither disaggregated between production, processing and/or other services, nor were commodity per hectare revenues/income disaggregated; and as such this aspect of the SOW could not be evaluated using MARKETS data. *These need to be fixed.*
- Going forward there is a need to establish a robust decentralized M&E system with adequate infrastructure that would allow performance data to be captured at sites where activities are implemented on regular basis. Performance tracking should be based on a fewer number of the most critical indicators. Continuous capacity building for the M&E staff specifically with regard to income generation and changes in women's and youth roles and economic empowerment is highly recommended.

I. INTRODUCTION

1.1 PURPOSE:

The purpose of the Nigeria MARKETS final evaluation is to provide USAID/Nigeria, Government of Nigeria (GON), implementing partners and other stakeholders with an independent evaluation of MARKETS project with a view to:

- determine whether the goal and objectives of the MARKETS were met;
- establish how effectively MARKETS interventions were delivered;
- assess project outcomes and the extent to which the project affected its beneficiaries;
- determine whether the USG investment in the program received the greatest possible return; and
- learn lessons that will guide the implementation of the follow-on project.

1.2 PROBLEM:

The importance of the agriculture sector in Nigeria cannot be overstated as it accounts for roughly 40 percent of Nigeria's gross domestic product and represents the largest labor sector. Nigeria has 79 million hectares of fertile land, but only 50% are under cultivation. Over 90% of agricultural output comes from farms of less than five hectares. These mostly subsistence smallholdings may produce yearly only enough food to last for 7-8 months. The poor performance of the agricultural sector in Nigeria is linked to inconsistent policies, and the use of low-input, low-output technologies. Post-harvest losses are high, appropriate processing and value adding technologies are not readily available, a commercial orientation is lacking and market information and linkages are weak.

1.3 PROJECT BACKGROUND:

Maximizing Agricultural Revenue and Key Enterprises in Targeted Sites (MARKETS) was a six and one-half year program designed to strengthen agricultural competitiveness and food security in Nigeria. It was designed specifically to assist USAID/Nigeria in achieving its Strategic Objective 12 (SO 12), Improved Livelihoods in Selected Areas. USAID/Nigeria's Country Strategic Plan (CSP). SO 12 consists of four intermediate results (IR) aiming to improve productivity, increase value-addition, increase commercialization of selected commodities and products, and improve the policy environment. While a number of USAID/Nigeria activities and programs work together to achieve SO 12 results, MARKETS focuses on the first three IRs that together aim to expand economic opportunities for Nigerians in the agricultural sector, by lifting a significant number of small producers out of subsistence farming and transforming them into entrepreneurs engaged in commercial farming.

The program began in 2005 with a budget of \$24 million and closed in December 2010 with a final budget of \$51.6 million. MARKETS' activities was extended with the Bridge to MARKETS II contract with an additional budget of \$9.5 million (January 2011 through April 2012), bringing USAID's total investment to \$61.1 million. By the close of the program, MARKETS operated in 31 States and Abuja/Federal Capital Territory. The chart below shows important milestones and the wide variety of project components for MARKETS and Bridge to MARKETS II.

Important Milestones in MARKETS' Implementation

- **June 2005:** The MARKETS program is launched. Initial value chains include rice, dairy, white sorghum, cowpea, and aquaculture.
- **August 2006:** The Promoting Improved Sustainable MSME Financial Services (PRISMS) project is merged with MARKETS, adding \$3.5 million to the MARKETS contract and broadening the scope of work to include microfinance and policy support.
- **April 2008:** The sesame program is launched.
- **June 2008:** MARKETS exits the dairy value chain.

- **September 2008:** A PEPFAR-funded nutrition program is launched for OVCs affected by HIV/AIDS, adding \$3.8 million to the MARKETS contract.
- **December 2008:** Global Food Security Response funds in the amount of \$23 million are added to the MARKETS contract. The scope of work is broadened to include trade and transport, agricultural policy support, a fertilizer voucher program, cassava, and support to the West African Seed Alliance through ICRISAT.
- **March 2009:** The cassava program is launched.
- **February 2010:** The maize and cocoa programs are launched.
- **December 2010:** MARKETS closes and the Bridge to MARKETS II program begins.
- **January 2011:** Bridge to MARKETS II continues the work begun under MARKETS
- **October 2011:** Bridge to MARKETS II is extended through April 2012.

MARKETS is a very complex, multi-faceted, multi-million dollar economic growth project that began focused on strengthening selected agricultural value chains, added financial services through its absorption of another USAID program PRISMS, added a food nutrition program for Orphans and Vulnerable Children, and added trade, transport, agricultural policy, a fertilizer voucher program and additional value chain commodities. At its close, MARKETS had worked with 10 major commodities: rice, cowpea, aquaculture, and dairy, white sorghum, yellow sorghum, sesame, cassava, cocoa, and maize. The last two commodities were added in 2010. MARKETS was managed by Chemonics International which is now the prime contractor on MARKETS II and utilized a large number of international and local subcontractors including Nathan Associates, Inc., the International Fertilizer Development Center, Winrock International, the International Food Policy Research Institute, the International Crops Research Institute, the International Institute of Tropical Agriculture, Making Cents International, Lodestar International and regionally based NGOs and private profit making consultancies.

1.4 APPROACH:

MARKETS used a private sector-led Agricultural Value Chain (AVC) approach comprised of identifying commercial buyers and encouraging farmers to produce what sells rather than employing the traditional method of producing and then trying to find a buyer; and identifying and addressing sector-wide value chain constraints, including improving farmers' access to appropriate agricultural technologies and management practices. When the project began the AVC and buyer led approach was still relatively novel and was not as widely adapted as it is today. To increase quality, raise productivity per hectare, and improve efficiency throughout the value chains, MARKETS facilitated access to fertilizer, high quality seeds, and credit to smallholder farmers, and supported more efficient and increased domestic agro processing capacity through support to the agricultural private sector. The introduction of new technologies to the farmers and agro processors was a critical component to increasing the output and efficiency.

1.5 MARKETS CROSS CUTTING AREAS:

Cross-cutting issues were not explicitly built into MARKETS project during design. They were brought in through additional funding opportunities between 2008 and 2009, broadening MARKETS activities, often into areas outside of MARKETS value chain work. They include: 1) Food Security and Nutrition, 2) Trade and Transport, 3) Agricultural Policy, and 4) Gender. Technology transfer is also a cross cutting area and is addressed throughout the evaluation but primarily in the Production and Inputs sections. The four cross cutting areas referenced above are addressed in the final evaluation under a separate section entitled Cross-cutting Areas. Special needs of youth was also added mid-term but is not part of the evaluation scope of work.

1.6 MARKETS 2010 PROJECT ASSESSMENT

An independent assessment of MARKETS in 2010 examined the extent to which the project was making meaningful progress in improving livelihoods and food security, as well as its impact on economic growth in Nigeria. The assessment showed key achievements including increased incomes of farmers participating in the value chain; creation of sustainable agro industries; transfer of technology; increased commercialization of

farming; and organization of women farmer groups among others. Vulnerabilities included the heavy dependence on agro processors in the commodity value chain, which by implication means that a withdrawal of support to small farmers by this group will be detrimental. Other vulnerabilities include the access to credit and intervention by the Government in the agricultural input supply chain.

1.7 MARKETS FINAL EVALUATION:

This final evaluation answers questions related to MARKETS and Bridge to Markets implementation, project outcome and key lessons learned. The final evaluation is focused around ten evaluation questions posed by USAID/Nigeria on MARKETS’ design, implementation and outcomes as a pilot project and was included in the MARKETS Final Evaluation SOW solicitation. The evaluation questions formed the basis for the key informant interviews, focus group discussions and the presentation of the evaluation findings.

Questions on design and implementation/outputs:

1. Were activities implemented as planned? To what extent did MARKETS project meet the needs that led to this project? Do those needs still exist and are there other related needs that have arisen that the project did not address?
2. What features of the project design / approach proved to be instrumental in achieving project’s results?
3. How satisfied were beneficiaries with their involvement in MARKETS?
4. To what extent did adjustment in project activities contribute to producing greater results?
5. How effective was MARKETS work with collaborating organization/institutions towards project implementation and project outcomes?
6. How effective was the MARKETS M&E system in tracking implementation progress, evaluating value chain performance, and measuring project outcomes

Questions related to outcomes:

7. To what extent did the beneficiaries (farmers, agro dealers, commodity groups) experience expected changes in their skills, knowledge, attitudes, behaviors, yields, income, etc.? To what extent did the project impact the intended population and the targeted number of beneficiaries?
8. As a pilot, how likely is it that the long-term outcomes of the project will be achieved?

In addition, the SOW for the Final Evaluation listed seven key indicators of anticipated results to be achieved under MARKETS and Bridge to MARKETS II activities. Anticipated results and indicators include: increased agricultural productivity; expanded markets and trade; increased private sector investment in agriculture and nutrition-related activities; increased agriculture value chain productivity leading to greater on and off-farm jobs; increased resilience of vulnerable communities and households and improved access to diverse and quality foods. Below are the cumulative life of project targets of key indicators that are compared against actual project achievements in this evaluation:

1. Number of clients networked* into the project:	1,200,000
2. Number of new jobs created:	160,000
3. Amount of revenue generated:	\$245 million
4. Amount of fertilizer sold by the private sector:	2.5 million tons
5. Financing leveraged for farmers and agro-processors:	\$57 million
6. Increased productivity of selected commodities:	100%
7. Volume of bulk commodities processed into value-added products:	30%

1.8 MARKETS EVALUATION METHODOLOGY:

The Evaluation Team used quantitative and qualitative data collection techniques. The Team also used triangulation on data generated from various methods: i) Document review; ii) Focus Group Discussions (FGDs), iii) Key Informant Interviews (KII); iv) MARKETS M&E data; v) MARKETS 2010 Project Assessment; and vi) Field visits to nine States that were purposively selected based on history and density of project activity, total investments, success and failures and relative security. The evaluation team members were selected and assigned to lead the evaluation activities by core service areas such as credit, training and extension, or agricultural inputs based on their technical expertise with a topic and familiarity with the

fieldwork location sites. Based on this approach, the evaluation findings are organized by core service area under which the eight evaluation questions are addressed. The entire team provided input and review into the fieldwork findings and analysis.

The following chart tracks the approach and sequence of the evaluation process and methodology:

Review of background materials
Team planning meeting July 18th – 23rd 2012
Development and pretesting of focus group and interview guides
Site selection
Design constraints and limitations
Data analysis
USAID debrief/PowerPoint Presentation July 13th 2012
Draft Report submitted to USAID September 2012
Final Report submitted to USAID September 2012

1.9 ORGANIZATION OF REPORT

The report is organized into six Chapters. Chapter one is the introduction that outlines the purpose of the evaluation, presents the problem that lead to MARKETS and summarizes the program background, objectives, approach and important implementation milestones. This section also provides a breakdown of the evaluation questions, the seven key indicators of anticipated results and outlines, the evaluation methodology and sequence of activities. Chapter two is a presentation of the evaluation findings to the eight evaluation questions organized and presented under each of the five MARKETS core value chain services: 1) agricultural inputs; 2) training and extension; 3) production and yields; 4) credit and 5) processing/agro-industries. Technology transfer and adoption is addressed in production and inputs. Chapter three covers the evaluation findings for the four cross-cutting issues – 1) food security and nutrition, 2) trade and transport, 3) agricultural policy, and 4) gender—again organized and presented to respond to the eight evaluation questions underlying this assignment. Chapter four assesses the effectiveness of MARKETS M&E system, with a focus on the seven key indicators of anticipated results detailed in the evaluation SOW and derived from the PMP. Chapter five highlights the constraints and challenges faced during the course of MARKETS implementation. Chapter six covers the conclusions and recommendations based on the findings by the evaluation team. Annexes containing the SOW, KII and Focus Group discussion guides, key informants and other source materials are attached.

2. MARKETS EVALUATION FINDINGS

The section is a presentation of the evaluation findings to the eight evaluation questions organized and presented under each of the five MARKETS core value chain services: 1. agricultural inputs; 2. training and extension; 3. production and yields; 4. credit and 5. processing/agro-industries.

2.1 - AGRICULTURAL INPUTS

Improving farmers' access to appropriate agricultural technologies and management practices is a key component of MARKETS private sector-led AVC interventions. Agricultural technologies introduced, facilitated and/or promoted by MARKETS are defined in the PMPs as *“any equipment, machinery, practice inputs (like seed) or methods used in the planting, cultivation, harvesting, sorting, processing/transforming, or packaging of agricultural commodities.”* The nature and approach of MARKETS interventions was guided by the specific constraints and opportunities for each commodity chain. Generally this included: delivery of training and extension services in best agricultural practices; investing in R&D; and facilitating appropriate networking and linkages between the different AVC stakeholders. . Agricultural inputs discussed in this section, an integral part of these technologies include seeds, fertilizers, pesticides, herbicides and agricultural machinery. The section looks at each of these, bringing out the why (need), how and extent of MARKETS specific interventions, and field observations and analysis in response to the evaluation questions underlying this assignment.

2.1.1 –SEEDS

- Planned Implementation of MARKETS Seeds and related training activities

Evaluation findings discussed further under MARKETS seeds activities below, suggest that seeds R&D activities were generally implemented as planned and met the goals for which they were introduced in the value chain. High yielding and adapted seeds were developed for the rice, sorghum, cassava and maize commodity chains; resulting in the development of various seed production and marketing networks across the AVCs, with direct participation of some end users, implying that the seeds met their standards.

FGDs with some rice and sorghum farmers however, brought out mixed responses regarding the timeliness of seeds and related activities. In Kwara, 75% of FGD and 50% of KII respondents indicated that seeds and related trainings were timely in accordance with production cycle activities. Two of the three KIIs who answered “yes” to delays were

	FGDs	KIIs
Timely implementation	3	3
Some delays encountered	0	3
Delivery of inputs and inputs generally late	1	0
No Response	0	1
Number Respondents	4	7

MARKETS’ main facilitators. They pointed out that such delays, were more recent, caused among other issues, by farmers’ growing difficulties in accessing bank loans to purchase inputs. *“But plans are never perfect. Adjustments were made in the delivery of training and extension services to catch up with the cropping calendar as much as possible”*, they concluded. In Kano, rice and sorghum FGD participants consistently listed seeds among their challenges, with lateness as one of

the main problems. *“All activities were timely except seeds (fertilizers, credit and purchase of produce by processor companies)”*; *“All activities were not timely with exception of training and extension activities”*; declared FGD participants from Kano’s *Chediyar Kuda* rice and *Nasara* sorghum, farmers multipurpose co-operatives respectively and this was echoed by many others.

- The Need for MARKETS Seeds Activities

Seeds are a vital input to farmers. A good crop starts with a good quality seed. Information from key evaluation informants suggested that while seed producers exist in Nigeria, their seed labeling is questionable. Farmers then generally tend to rely more on their own seeds than purchasing from a seed company. Enhancing farmers’ access to quality seeds was then viewed as a vital MARKETS activity.

- MARKETS Seeds activities – Collaborative and Innovative

MARKETS’ approach to enhancing farmers’ access to quality seeds consisted of: i) providing support to R&D institutions to develop seed varieties that have highest yields while also meeting end-user standards, ii) facilitating capacity building of local and regional seed production companies, and iii) facilitating the latter’s linkage to farmers, via commodity chain facilitators, processors and credit services. The R&D institutions with which MARKETS collaborated in the seed sector are: the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), the West African Seed Alliance (WASA) and the International Institute of Tropical Agriculture (IITA). ICRISAT and WASA built the capacity of local and regional seed companies to produce foundation and certified seeds, and IITA helped increase cassava productivity and supported efforts to strengthen farmer-industrial end-user linkages.

From these collaborative interventions high yielding adapted seeds developed particularly those for the rice, sorghum, cassava and maize commodity chains, resulted in the development of various seed production and marketing networks across the AVC, with direct participation of program facilitators and processors in many cases¹. Da All Green Seeds Ltd., who is MARKETS’ regional production coordinator for the Sorghum value chain, is also a seed producer/supplier to producers and a buyer of sorghum to supply the Aba Malting Plant. Olam also served as processor/agro-dealer/seed producer and facilitator of seed production for its network of rice and sesame out-growers. Olam introduced a farmer rice seed grower scheme in Kwara in 2007, and this was much appreciated by the farmers.

IITA, one of MARKETS’ seeds R&D partners with whom the Evaluation Team was able to meet, indicated that the seed development collaborative process was cordial and satisfactory. The seeds development and marketing outcomes discussed above are also testimony to the success of this collaboration.

Beneficiaries Satisfaction with MARKETS Seeds Interventions

Results from FGDs and KIIs across community chains and states visited suggested that the development of quality seeds was overall a timely intervention that has received great uptake by almost all beneficiary farmers and spilled over into most of their communities. The new *Faro 44* and *Faro 52* rice varieties were highly acclaimed by farmers in Kwara for both productivity and palatabilityⁱⁱ. Their testimonies ranged from “almost all farmers in this community now grow *Faro 44* or *52*”, to “the new *Faro* has drawn younger people into farming due to its demonstrated high yields and incomes. Da All Green also attributed the revival of white sorghum, a hitherto declining commodity, to the development of *KSV-8 (Fara Fara)*, a drought resistant high yielding variety. The same is true for cassava with the recent deployment of 10 very high yield and high starch content varieties by IITA. This is also the case with a protein fortified maize variety developed by the Institute for Agricultural Research (IAR) Zaria, in collaboration with SG 2000 that is currently used by MARKETS’ farmers in Kaduna, with a satisfaction (very satisfied and satisfied) rate of 73% from 15 FGDs. Satisfaction rates emerging from 15 sorghum and 5 rice farmer FGDs in Kaduna and Kano were 73% and 40%; with dissatisfaction rates of 20% and 40% respectively, as detailed in Table 2.1.2 . The higher rates of dissatisfaction among rice and sorghum,

	Rice	Sorghum	Maize
Very Satisfied	0%	13%	13%
Satisfied	40%	60%	60%
Not Satisfied	40%	20%	7%
No Response	20%	7%	20%

farmers seem to stem from the delays mentioned earlier, as well as an emerging seed quality issue particularly among sorghum farmers, many of who consistently indicated that the quality of seeds had changed in the past year as seeds purchased from the same source no longer produced the high yields they had grown so used to.

IMPACT OF MARKETS SEEDS INTERVENTIONS

The impact of MARKETS’ seeds interventions is evident by the great uptake by farmers, increases in crop yields discussed in Section 2.3, and the emergence of other private sector supported collaborative seeds development initiatives like that between IAR and SG 2000.

MARKETS’ SEEDS Intervention as a Pilot

That the seeds developed have received excellent uptake by farmers, increased yields and catalyzed the emergence of other private sector supported collaborative seeds development initiatives is a good indication of the potential for longer term sustainability. Other aspects of the design that contributed to the great uptake by farmers were, first, the initial use of in-kind loans, a practice pre-datingⁱⁱⁱ the advent of MARKETS; and second, availability of a sure market. Farmers interviewed consistently indicated that in-kind loans made it possible for them to easily adopt the new seeds and other technologies, and that the gains in practical knowledge, high yields and income thanks to a guaranteed buyer, have better prepared them to buy these inputs going forward than would have otherwise been the case. “*This knowledge has come to stay. We are passing it onto our children and they will pass it onto their own children too*”, declared one farmer in answer to the question of sustainability.

Many farmers, particularly women, answered “yes”, to the question “*do the needs still exist?*”. Women in Kwara who suggested that women-specific crops – cowpeas, sesame and soy beans be included among MARKETS commodities, indicated that this would help them to benefit from MARKETS high yielding seeds. Others mentioned improving on availability and supply of seeds and other inputs, including fertilizers and credit.

The emerging seed quality issue mentioned above could however, compromise longer term sustainability. The seeds were purchased from Da All Green, who has a multifaceted relationship within the sorghum value chain. The issues raised by Da All Green to the Evaluation Team had little to do with these farmers’

concerns. They were all about pricing problems with Aba Malting Plant, which it was suggested that USAID (MARKETS) help broker.

To prevent the emerging vested and conflict of interest portrayed in this case from spreading and threatening longer term sustainability of project gains among farmer groups, it may be useful to consider putting in place preventive measures. These could be in the form of rules and regulations regarding the extent of involvement in value chain activities by direct stakeholders like Da All Green. The issue of timeliness seems to be closely linked to farmers’ access to credit, recommendations on which are provided in the credit section.

2.1.2 –FERTILIZERS

-The Need for the Activity

The Nigerian fertilizer market is often fraught with inefficiencies and widespread fraudulent practices, manifested at the federal, state, and local government levels through their involvement in the procurement, subsidization, and distribution of fertilizers. Government policy and public sector involvement resulted in a weak private sector distribution channel, late distribution of fertilizers to farmers, inability of private sector fertilizer dealers to compete against heavily subsidized fertilizers, and the diversion of subsidies to unintended beneficiaries.

-The Fertilizer Voucher Program (FVP): Design and Innovativeness

In an effort to improve the availability of fertilizers to Nigerian small farmers, MARKETS, with the help of Global Food Security Response (GFSR) funds received in 2008, partnered with the International Centre for Soil Fertility and Agricultural Development (IFDC), Nigeria’s National Program for Food Security (NPFS), the Federal Fertilizer Department (FFD), the Alliance for a Green Revolution in Africa (AGRA) and selected states to pilot a fertilizer voucher program. The FVP had three primary objectives: (i) allow subsidies to be delivered to targeted beneficiaries; (ii) develop a private sector fertilizer distribution channel that can function with or without subsidies and provide fertilizers to meet market demand; and (iii) improve the federal and state subsidy administration.

Under the program, vouchers were used to provide a subsidy to targeted farmers, while offering an incentive for private sector fertilizer companies to develop their supply chains into select program regions. Vouchers representing a 40 percent discount on the market price of select fertilizers were given to identified^{iv} smallholder farmers to purchase a specific quantity and type of fertilizer from local private sector fertilizer dealers participating in the program. The latter then redeemed the vouchers with their respective fertilizer supply companies, which in turn redeemed the vouchers effectively redeemed by farmers with the government. The number of targeted beneficiaries shifted each year, driven by the amount of funding each state government was willing to commit to the program.

-Planned Implementation: Achievements and Challenges of the FVP

The LOP target for fertilizers sold by the private sector was 2.5 million metric tons (MT). However, by the end of the program in 2011 only 51,113 MT of fertilizer was recorded as sold through active private sector participation (Table 2.1.3.). Although this falls far short of the anticipated 2.5million MT, this is not the full picture. This is only the volume of fertilizer that passed through the FVP launched in 2009. Fertilizer sold to farmers prior to and/or outside of the FVP was not tracked by MARKETS. (This M&E issue is discussed further in Section 2.1.5).

Table 2.1.3 : Nigerian Fertilizer Voucher Program				
Description	2009	2010	2011 ^v	Aggregate

Participating States	Kano, Taraba	Bauchi, Kano, Kwara, Taraba	Taraba	4 states
Number of Farmers Purchasing Discounted Fertilizer	194,675	171,350	51,571	417,596
Amount of Fertilizer Sold (MT)	29,800	16,397	4,916	51,113
Purchasing Power Support (\$ millions)	\$7.90	\$4.40	\$1.34	\$13.64
Aggregate Amount of Fertilizer Sales (\$ millions)	\$18.70	\$10.60	\$3.50	\$32.80

Source: IFDC Nov. 2011: Lessons Learned on the Fertilizer Voucher Programmes.

According to IFDC^{vi}, the main outcomes of the FVP are: i) strengthened private sector delivery networks and *increased private suppliers' incomes*^{vii}; ii) commitments by state governments to distribute fertilizers in a transparent and open process; and iii) farmers^{viii} actually receiving the subsidized fertilizers, as against only 10 to 20 percent of subsidized fertilizers actually reaching intended beneficiaries using traditional distribution methods. And the main challenges, all attributed to the involvement of participating states are: delayed fertilizer payments; delayed supply of fertilizers by fertilizer companies; reduced availability of fertilizers when farmers most need it, and thus reduced impact of the program on farmers' crops. With these challenges, IFDC admits that the FVP is not a panacea, but points out that it has at least facilitated an environment in which the public and private sector can work together more efficiently to overcome these challenges.

-Beneficiaries Satisfaction with the FVP

The Evaluation Team visited a selected number of states, including two of the four states in which the FVP was implemented – Kano and Kwara. Results from FGDs and KIIs which unfortunately did not succeed in including fertilizer suppliers, confirmed some of the challenges brought out by IFDC regarding the FVP, captured farmers' reactions and exposed other emerging challenges.

	Kano(7)	Kwara (4)
Very Satisfied	14.3%	0%
Satisfied	14.3%	25%
Not Satisfied	71.4%	75%

Many farmers in both states were still stuck with non-redeemed vouchers months into the cropping season, and over 71% of all farmer FGD participants answered "not satisfied" regarding the FVP. The main reasons being: late delivery; difficulties redeeming vouchers; insufficient fertilizer quantities obtained through the FVP; high cost of purchasing fertilizers on the open market; as well as additional issues of adulterated fertilizers and dubious agro-dealers that emerged in Kano in the second year of the FVP^{ix}.

Follow-up discussions with IFDC indicated that in the case of Kwara, Notore, private sector fertilizer supplier and FVP partner for the state, supplied fertilizer worth over 144million Naira, but the state paid only 40% of the amount (58million Naira)^x. Notore stopped supply. Only farmers who went early were able to redeem their vouchers' worth of subsidized fertilizer.

Farmers' complaints about high prices are however, understandable given where they are coming from – State subsidies before MARKETS and in-kind input loans with MARKETS prior to the FVP. Many farmers are still reluctant to buy the additional quantities of fertilizer at regular market price under the FVP. This reluctance was further compounded and turned into anguish by their difficulties in redeeming fertilizer vouchers.

Collaboration with Partners

The collaboration process between MARKETS, NGO partners and private fertilizer suppliers seems to have gone well. They delivered on bringing in the private sector, enhancing transparency in the delivery of

government subsidized fertilizers, and in reducing the direct involvement of the government in fertilizer procurement and distribution. Some participating states were, however, not totally committed to the program as testified by the reported failures/partial fulfillment of financial commitments, resulting in the delays and frustrations experienced by fertilizer companies and farmers.

MARKETS FVP as Pilot

The above field evidence and analysis would suggest that the FVP is overall a good initiative within an environment still very much influenced by past practices. And as rightly pointed out by the IFDC, the successes have created an environment in which the public and private sector could work together more efficiently to overcome emerging and persistent challenges. The FMARD's adoption of the FVP for implementation in select states in 2012 under the new e-voucher scheme can only go to corroborate and put into action this new public-private platform enabled by the FVP pilot.

The Evaluation Team echoes the IFDC's conclusion that the states' commitment to improving their fertilizer procurement and distribution system is vital for success; and recommends that those states willing to improve their procurement and distribution systems be brought onboard during the next phase of the FVP, first to trigger the type of momentum that would eventually attract the states that are still not so committed to change. There is also need to continue to educate and sensitize farmers and private sector agro-dealers about the advantages of free and transparent fertilizer markets, as opposed to unsustainable and fraudulent state run subsidies. Another area that could make a positive difference in the fertilizer sector is the development of fertilizers that match different soil and crop needs, based on the existing nationwide soil studies. USAID MARKETS could leverage its fertilizer experiences and partnerships to collaborate with the GON and other donors to facilitate a private sector pilot of fertilizer compositions that match specific soil and crop needs.

2.1.3 - AGRO-CHEMICALS

Agro-chemicals are generally used on as needed basis, and in much smaller low cost quantities than fertilizers. Agro-chemicals that have entered in MARKETS value chains are pesticides and herbicides.

-Planned Implementation

Discussions with farmer groups and key informants indicated that MARKETS agro-chemical interventions were generally timely – training and linkage to suppliers (processor and other local agro-dealers). This facilitated the flow of useful technical and market information to the benefit of all stakeholders – farmers and agro-dealers.

-The Need for Agro-chemicals

Farmers need appropriate pesticides occasionally when there is a pest breakout. While the use of pesticides was not new to MARKETS beneficiaries, quality and appropriate use was an issue as local agro-dealers are said to trade in recommended/not recommended/discontinued and adulterated chemicals. According to MARKETS IPs and facilitators, MARKETS promotion of herbicide use came from a felt need - farmers were increasing crop acreage, but had no appropriate farm implements to meet the growing labor needs.

-Agro-chemical activities: Design and Innovativeness

MARKETS facilitated linkages between farmers and agro-chemical suppliers via the value chain processors or through direct linkage of farmer groups to agro-dealers by inviting agro-dealers to participate in routine farmer training, giving them the opportunity to practically demonstrate their products and answer farmers' questions. MARKETS promoted the use of herbicides through the introduction of their innovative Zero Tillage technique. Two types of herbicides – selective and non-selective herbicides - are used, depending on the crop cycle activity. Non-selective herbicides are used during land clearing to kill all grass/weeds. Rice is then planted without any tilling – the zero tillage. Selective herbicides are applied after transplanted rice has taken root and on appearance of weeds, to kill the weeds without destroying the crop. Subsequent weeding is lighter because much of the weeds are destroyed by the herbicide.

Beneficiaries Satisfaction with MARKETS Agro-Chemical Interventions

MARKETS agro-chemical activities have benefitted both farmers and agro-dealers. Farmers know where to buy appropriate agro-chemicals and agro-chemical dealers have a network of informed buyers. Farmer uptake of the herbicide zero tillage technology has been great across the rice value chain for various reasons. Some farmers have seen herbicides as a panacea that solves their labor problems, as is the case of farmers in Ebonyi state where many farmers who had abandoned rice production due to labor intensity have been pulled back into rice farming by MARKETS' zero tillage technology. But some have adopted herbicides in the absence of other preferred options. This is the case for instance of many Kwara farmers who expressed their preference for tractors, but are willing to make do with zero tillage as long as this resolves their labor needs in a timely and affordable manner. In Kaduna and Kano, where the bulk (>76%) of the Evaluation Team's farmer FGDS were conducted, 64% of all respondents were either very satisfied or satisfied with MARKETS agro-chemical interventions, as detailed in table 2.1.5.

Very Satisfied	Satisfied	Not Satisfied	No Response
36%	28%	8%	28%

Impact of Agro-chemical Interventions

MARKETS' agro-chemical activities have impacted positively on the private sector supply channel in some cases, and met with indifference in others. Farmers' ability to buy needed pesticides directly from private agro-dealers has contributed to a fast growth in agro-chemical dealerships in many farming communities in Kwara. But despite the participation of agro-chemical dealers in farmer training in the Southern belt, only a couple of them have established businesses in the rural areas. The Evaluation Team was informed in Ebonyi State that this is likely due to farmers' distrust of the quality of products sold locally and preference to buy from shops located in bigger towns and cities.

MARKETS Agro-chemical activities as a pilot

Environmental issues are an important concern with the use of agro-chemicals. MARKETS reports and information from the field indicated that USAID/MARKETS takes environmental concerns very seriously and has put in place mechanisms to mitigate them as much as possible. *"USAID is very critical about insecticides and herbicides. They have a manual to provide guidelines"*, indicated S-G 2000 in Kaduna. MARKETS has assisted in removing harmful chemicals from some value chains, as in the case of the cowpea value chain; and does not hesitate to stop training where suspect chemicals could be demonstrated (case cited in Benue). This vigilance is commendable.

More attention, however, needs to be paid to the growing use of herbicides through the zero tillage technique. The sustainability of this practice is questionable. What kills weeds will kill other useful soil micro-flora and fauna, destabilizing the natural soil renewal mechanisms. It could also be harmful to humans. There was no clear answer to the question about who vets/controls these types of products – Standards Organization of Nigeria (SON) or some other GON department? These questions need answers. The Evaluation Team would recommend that USAID MARKETS II consider taking this up further with the GON, other experts and through the training of trainers and farmers.

2.1.4 - AGRICULTURAL MACHINERY: FIELD OBSERVATIONS

Agricultural machinery was not a specifically planned intervention within the MARKETS program. Discussions with the MARKETS field teams brought out the fact that mechanization usually comes up in training sessions only under the topic of land preparation. The service providers use their prerogatives to bring in whatever implements are readily available in their locality to demonstrate to farmers during the topic on land preparation.

In Anambra and Ebonyi, for instance, modern machinery, tractors, harvesters, etc., were brought in for demonstration during training. After training, the machines were taken away. The farmers who were interested and were willing to at least learn more about the machines were informed that the machines were neither available for sale nor for hire.

In Kwara planters were demonstrated, but farmers prefer tractors, which some farmers have been able to acquire thanks to MARKET'S facilitated incomes and a government program launched in 2011. The latter is a purchase scheme through which producer groups can participate in a government facilitated tractor mortgage program by providing a down payment of 1million Naira, and pay up the rest of the value of the tractor over a period of 3 years. Tractors have become quite an attraction in the Local Government Areas (LGAs) in which MARKET'S is implemented^{xi}. Tractor hire is increasingly used where available, and this has increased the growth of tractor hiring services in many communities^{xii}.

Through discussion with S-G 2000, one of MARKET'S partners and facilitator for the maize value chain in Kaduna, the Evaluation Team learned that this partner is involved in the development of prototypes of simple adapted agricultural machinery – planters, tillers, threshers, broadcasters, etc., but S-G 2000 has not found a partner to commercialize the prototypes.

Almost all the FGDs and KIIs conducted across all states visited by the Evaluation Team had on their list of new needs emerging as a result of MARKET'S some type of agricultural machinery like those S-G 2000 has developed. Younger farmers also listed implements like the harvesters being used by the Zimbabwean farmers in Kwara. What this suggests is that Nigerian small farmers are ready to go to the next phase of agricultural intensification – that supported by adapted agricultural machinery.

- **Recommendations:** Increasing mechanization support going forward would no doubt be a welcome and needed innovation, particularly for the younger generation of farmers who are more technologically informed than their now old and soon to be retiring farming parents. MARKET'S could consider supporting S-G 2000 by linking them to potential partners that could facilitate commercialization and scale up of the prototypes in response to the emerging need for mechanization among MARKET'S's beneficiaries. Facilitating linkages to credit services would be an integral part of making mechanization work for Nigerian small farmers. The GON tractor mortgage scheme that facilitated Kwara farmers' adoption of tractors is a case in point.

2.1.5 - M&E SYSTEM EFFECTIVENESS FOR MARKET'S AGRICULTURAL INPUTS INTERVENTIONS

Other than for fertilizers, no specific quarterly, annual or LOP targets were set for MARKET'S direct inputs interventions. Indicators and targets for other agricultural inputs are subsumed under agricultural technologies. And the latter's all inclusive definition - "any equipment, machinery, practice inputs (like seed) or methods used in the planting, cultivation, harvesting, sorting, processing/transforming, or packaging of agricultural commodities,"- does not make it possible to disaggregate the M&E data into the respective components subsumed under agricultural technologies.

Despite the fact that a specific indicator and LOP targets were set for fertilizers, the M&E system was not very effective in tracking the performance and outcomes of the fertilizer aspects of the AVC. The main fertilizer indicator "*quantity of fertilizer sold by the private sector*" was never tracked by MARKET'S until the launch of the FVP in 2009. And with the FVP, only fertilizer sold through the program was tracked, leaving out a large part of the private sector fertilizer business catalyzed by the FVP^{xiii}. Also, there is no record of baseline data either at the start of MARKET'S or at the launch of the FVP from which to gauge any changes. It is thus difficult to assess the impact of the FVP on farmers' access to fertilizers and/or private sector participation.

2.2 TRAINING, TECHNOLOGY TRANSFER AND EXTENSION

- Planned Implementation of Activity

Table 2.2.1 Farmers Trained

Year	Target	Actual
2006	13,841	31,313
2007	9,500	14,731
2008	3,120	5,133
2009	46,463	33,356
2010	123,076	109,947
2011 Q1	4,000	10,500
BtM2	117,663	100,156
Total	317,663	305,186

MARKETS achieved 96% of its overall target by training 305,186 farmers., Training and extension activities were reported by farmers, agro-processors and service providers interviewed as “implemented as planned”. The service provider REMS, noted that MARKETS emphasized timeliness of trainings/demonstrations in terms of the farmer’s growing season and what worked for them. Several respondents suggested that MARKETS develop a training/demonstration schedule of events for the entire calendar year in collaboration with the farmers. Nine of eleven (82%) of service providers interviewed said MARKETS activities were timely.

The Need for the Activity

Training and extension services are fundamental to MARKETS’ project goal of helping create and strengthen the value chains between Nigeria’s small farmers and the agro processors of the targeted value chain commodities. *Why?* Small farmers often have very limited skills in agro best practices and access to production technology.

- Project Design & Innovativeness

The means is through knowledge and skills development, transfer of small technology and extension services. MARKETS provided services in support of business development, private sector partnerships and agricultural productivity. At the farmer level, the MARKETS project provides technical training and workshops on farming as a business, field and technology demonstrations and extension services. MARKETS engaged service providers as the delivery mechanism on best practices trainings throughout the cropping cycle. Winrock International, a MARKETS subcontractor, focused on business development and private sector partnerships.

The approach is that the service providers conduct a training of trainers (ToT) where leading farmers or community advocates are trained on the curriculum, demonstration of cultivation techniques and equipment and agricultural extension service. The key/lead farmers in turn train the general farmers’ group membership. Members of the farmers group are encouraged to extend the knowledge and skills out to the community. This is referred to as the ‘step down approach’. Indirect impacts and benefits arise from the rippling effect of the step down approach. Private sector actors such as agro input dealers and lenders may participate in training sessions as resource people and demonstrate or give information on their products and services. Table 2.2 provides a summary of the MARKETS training and extension component. The data in the table comes from the MARKETS project and there is no comparative basis to conclude that the project was efficient in each of the five training subcomponents.

Core agronomic best practices training materials are developed and then tailored specifically for the targeted value chain commodity (sesame, cassava, aquaculture, maize, rice, sorghum). These are Package of Practices (POPs) and are primarily agronomic in subject matter. The POPs were used in pre-season trainings, Training of Trainers and farmer field days. Apart from the POPs, MARKETS contracted with Making Cents International to co-design and introduce what is now more widely known and used--the Nigerian Agricultural Enterprise Curriculum (NAEC) --to conduct training on small scale farming as a commercially viable enterprise.

The demonstration plots, green and brown field days (reflecting the cycle of the growing season) are led by fulltime professionals and in the step down process by lay trainers. The demonstrations were highly effective

in achieving the desired results of increased productivity. Follow on courses that reinforce and deepen their knowledge were requested by farmers for MARKETS II.

A second key feature of the project design and approach that was instrumental to achieving project results is from knowing the end market in advance. Farmers were taught how to grow to an agro-processor’s exact specifications, and in return were able to attract higher prices for meeting the buyer’s specifications.

- Beneficiaries satisfaction with MARKETS interventions

Eighty-nine percent of producer group members from 36 Focus Group Discussions in Kano and Kaduna were either “very satisfied” or “satisfied” with the MARKETS’ training and demonstration activities and approach as summarized below:

Very Satisfied 72%	Satisfied 17%	Not Satisfied 11%	No Response 0%
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- Collaboration with Partners

The prime example of collaboration in MARKETS training and extension is the Nigerian Agricultural Enterprise Curriculum (NAEC). MARKETS and the DFID-funded PrOpCom project co-funded the core curriculum development. The World Bank provided support through the National Fadama Development Project. MARKETS original target was to train 500,000 trainers in the NAEC. The target was subsequently reduced to 200,000, and in fact only 33,195 were trained. MARKETS signed a MOU with Fadama which laid out each project’s commitments. MARKETS moved quickly to provide the capacity building services; however, there were significant delays in approving and moving forward with the implementation under Fadama. The World Bank did not issue approval for funding beyond the original ten states, although MARKETS had delivered its commitment to train trainers in all states. Furthermore, MARKETS had little input into the selection of trainers because the project was requested to train currently engaged ADP extension agents. In retrospect, contracts or grants, rather than MOUs, might have been easier to manage for accountability. Also, phasing the capacity building over time allows a project to assess the management capabilities and the level of commitment of the trainers. If a partner is unable to complete implementation, then a project can scale up with alternative partners.

MARKETS also collaborated with the public sector Agricultural Development Program extension services as a means to build capacity and sustainability. Beginning in 2007 MARKETS, through a MOU, has trained 258 extension agents in 11 states from the public sector Agricultural Development Program. Extension services were made in cowpea, sorghum, maize and rice during the cropping seasons of 2008 to 2010. In 2011 under BtM2 seventy seven agents in 7 northern and middle belt states provided extension services in rice, maize, sorghum and sesame. The USAID MARKETS Baseline Report (page 13) notes that in 2006 there was a ratio of 1 Extension Agent to 1,187 farmers—and that they had no functional transportation or the resources to repair trucks and cycles. This suggests that MARKETS training and capacity building in itself will not lead to a sustainable public sector extension service.

- M&E System Effectiveness

With respect to training, the M&E system contains clear details on the types of new methods of production introduced. The system is well designed and refined on how *to measure the technical/production aspects* of improved agro practices through training, extension services and demonstrations. Where MARKETS and other agro-business projects fall short is the consistent and systematic measurement of impacts from training on farming as a family business. Although recommended by the MARKETS 2010 Assessment, there is still no quasi-experimental design to rigorously isolate results from farming as a business that might have occurred without project intervention. The approach to measure indirect impacts from the training and demonstrations remains arbitrary, and is not systematic.^{xiv} Collecting data and records as part of this evaluation was piecemeal and required pulling out embedded data from other sources. Targets were increased over the life of the project and with addition of BtM2.

Changes in skills, knowledge, attitudes, behaviors, yields and income is an important evaluation question, and the ability for MARKETS and the Evaluation Team “to tease them out” was only partly successful. The M&E system clearly captures changes in yields, income and technology transfer (the latter through its detailed inventory of the number of new technologies or management practices adopted) and were most easily captured in the evaluation fieldwork. These are proxy indicators of changes in behaviors and attitudes via increased productivity and incomes.

- Project Impact

The table, 2.2, below summarizes the impacts of the MARKETS training and extension component.

Table 2.2.2: MARKETS Training and Extension Program Overview

Type	Targets	Provider & Approach	Actual # trained over LOP (%= % of target)	Curriculum and approach	Level of standardization	Evaluation mechanism	Comments
Technical training to Farmers	7,484 target LOP of Farmers Groups & outgrowers 317,663 target LOP 840,000 target LOP No new technologies set under BtM2	Private Service Providers & ADP Training of trainers	18,723 (244%) producer groups, 305,833 (96.3%) farmers get STTA training, 633,833 (75%) adopt new technologies	Package of Practices & field demonstrations	Moderately—PoP tailored to commodity value chain.	Selection criteria for service provider and a performance review Evaluation of trainers /service providers format	Some materials off the shelf and not really appropriate for level of literacy
Technical training to agribusinesses	Agro-processors across 8 value chains; <i>no target set on firms</i> ; 235,000 target	Nigerian and international consultants	230 firms; 97,746 (39.1%) private sector individuals	Market research, consumer preferences, feed market, PHHS, transport logistics etc.	Customized	Informal feedback from business staff	Well regarded
Farming as a business	Farmer groups and OVCs; 200,000 target	Private service providers who train and certify NAEDC facilitators	519 FADAMA facilitators trained who trained 33,195 in step down (16.6% see explanatory note in text below)	Making Cents Inter et al. developed the NAEC curriculum and training of trainers	Standardized	Pretested curriculum with farmers; post-training evaluation	Very appropriate for target group, very complete post training feedback survey
Special requests & Capacity building of	NGO (nutrition and livelihoods),	Training and capacity building of local service	141 Sub-contracts (as of 12 July 2012)	Mentoring partners through the Strategic	Service providers develop curriculum based on MKTS PoPs	Service providers evaluated at end of every event	Data base of sub contracts let out under this Fund.

local service providers	local consulting firms (ag ext., bank and MFI training) <i>No target set on SAF</i>	delivery providers & special activities	awarded to 102 service providers	Activities Fund (SAF)		by MKTS tech mgr, M&E, & SAF teams	Impacts/outcomes unclear
Technical training to ADPs	Extension agents of ADP; <i>no target set</i>	MARKETS technical team	335 ADP EAs trained: 77 EAs in 7 states (2011) + 258 from 2007-2010 in 4 VCs and 11 states	Annual orientation workshops, roles & responsibilities in north and middle belt	Developed for the trainings of ADP extension agents; EA also attend farm technical trainings	Standard performance reviews tools	Some challenges around cost-sharing and oversight by MARKETS over so many EAs

The evaluation established that MARKETS’ training and extension had very positive impacts on production and economic returns. Fieldwork findings of MARKETS project impacts are summarized below and confirm satisfaction from beneficiaries. The positive impacts on yields, incomes, outputs and jobs translated into a high level of satisfaction with MARKETS training and extension.

Table 2.2.3: Measurable Changes from MARKETS Trainings and Demonstrations

Farmers Groups & Private sector	Yield N=20	Income N=19	Output N=7	Jobs N= 7
Average increases (X)	3.2	2.7	3.4	1.6

Source: MARKETS Final Evaluation Field based interviews, July 2012.

- MARKETS as a Pilot

The deepening of knowledge and skills is a process, and not an end point. Virtually all stakeholders interviewed desired ongoing technical and business training and demonstration opportunities. MARKETS II must now consider how best to deepen the knowledge base of the “original” farmer producer and outgrower groups and private sector stakeholders trained under MARKETS. This is especially true with regards to *entrepreneurial and financial management, decision making and organizational skills*. There must be reinforcement as these skills are novel as compared to production techniques and demonstrations in the field days.

The sustainability of training, technology transfer and extension requires a combination of a sufficient base of skilled trainers, business consultants and extension workers. The Dararafe Women’s Association (Kano) received NAEC entrepreneurship trainings and reported income increasing 7 to 10 times. How can it be sustained? They replied with “Credit, appropriate technology and continuous training.” Training and extension activities require subsidization. Fadama III Senior staffs who were interviewed for this evaluation recommend *ongoing and deeper training of trainers and farmers and facilitating access to credit*. The selection of high quality and committed partners and trainers is essential to sustainability of training and extension. When the MARKETS project was able to play a role in identifying, selecting and certifying Master Trainers, the project saw a stronger commitment to quality implementation and community development. Master Trainers should be able to make recommendations throughout the process on the commitment of partners and trainers. Community-based civil society organizations and private service providers like REMS, who have an enduring commitment to its social and economic development outreach programs, may be good strategic choices.

2.3 PRODUCTION AND YIELDS

- Planned Implementation of Activity

The productivity of the selected value chain commodities was set to increase by 100% by end of LOP. Using baseline data, the productivity of rice increased by more than 200% while that of sorghum and sesame increased by more than 100% between 2006 and 2010. Rice and maize exceeded the LOP target by more than 80% (Table 2.3.1). Sesame and white sorghum have a lower percentage increase over the LOP in comparison to rice, cassava and maize. The evaluation team surmises that this is because they are not major staple crops and have not received attention in terms of R&D and therefore have fewer new technologies available to immediately improve their productivity.

Table 2.3.1 Productivity increase of selected commodities

COMMODITY	PRODUCTIVITY (MT/HA)				
	BASELINE	LOP (100%) Targeted	ACHIEVED	% INCREASE Over Baseline	% INCREASE Over LOP
Rice	1.5	3	5.7	279%	89%
Sorghum	1.0	2.0	2.2	120%	10%
Maize	1.2	2.4	4.5	276%	88%
Sesame	0.4	0.8	0.9	130%	15%

As can be noted in Table 2.3.1 the production related activities were generally implemented as planned especially for rice and maize. However, farmers of rice, maize and sorghum confirmed during FGDs that they were not willing to sell their produce to their processors because the processors offered lower prices than the open market, contrary to the Purchase Agreement/MOU signed. Income from sorghum, for instance, was depressed as prices slumped, even in the open market owing to their contracted buyer's failure to purchase. This resulted in glut and consequent spiral slump of prices even in the open market. This accounts for a lower FGD level of satisfaction with income indicating 67% as satisfied/very satisfied, compared with yield whose level was 80%. Nonetheless, incomes were still above pre-MARKETS period. FGDs conducted with farmer groups indicated that in many cases the increase in yield was achieved at the same or even lower cost than before MARKETS – a direct result of improved production methods. In the case of rice, failure to agree on sale/purchase price led to a breakdown of supply from the farmers, and consequent default in the repayment of the 'in-kind' loans extended to the farmers by processors (Olam in Benue and Umza in Kano). Thus, price is still a big issue and MARKETS may need to review the entire marketing and purchase order arrangements in all the value chains.

- The Need for the Activity

The MARKETS production activities were based on identified farmer needs jointly identified by the farmers, MARKETs and other collaborators. The degree to which production activities were relevant and effective are reflected in the number of new technologies made available and adopted by the farmers. A total of 28 improved technologies were made available to the farmers – of which 22 were for the cereals (rice, maize and sorghum), 1 for cassava and 5 for aquaculture. The cereal technologies ranged from improved varieties /cultivars, land preparation, planting, pest management, water and soil management including fertilizer application, to pest, disease, environmental control/management, harvest and storage. The technology for cassava was in the area of Cassava Supply Management System while the 5 aquaculture technologies included nutritional enhancement, water and disease management. Records show that adoption level was 100% in which all directly networked farmers across the value chains adopted all the technologies made available to

them. This was achieved through strong farmer training and field demonstrations as well as the improved farm inputs supplies deployed by MARKET'S as already discussed in sections above. There was evidence also during farmer interviews that there is a strong spill-over of skill through on-going step down training of indirect farmer groups and communities by the directly networked farmers. Soil, water and pest management were adapted to the greatest extent. In all, 28 new technologies were made available to the farmers according to the needs of each commodity. Post-harvest and animal genetics technologies were not adopted.

Table: 2.3.2 Technologies Type and Number Delivered For Each Value Chain

	Crop Genetics	Animal Genetics	Pest Management	Disease Management	Soil related	Water Management	Post harvests	Processing	Other	Total
Sorghum	1	0	3	0	4	0	0	0	2	10
Rice	1	0	2	0	1	1	0	0	4	9
Maize	0	0	0	0	2	1	0	0	0	3
Cassava	1	0	0	0	0	0	0	0	0	1
Aquaculture	0	0	0	1	0	1	0	1	2	5
	3	0	5	1	7	3	0	1	8	28

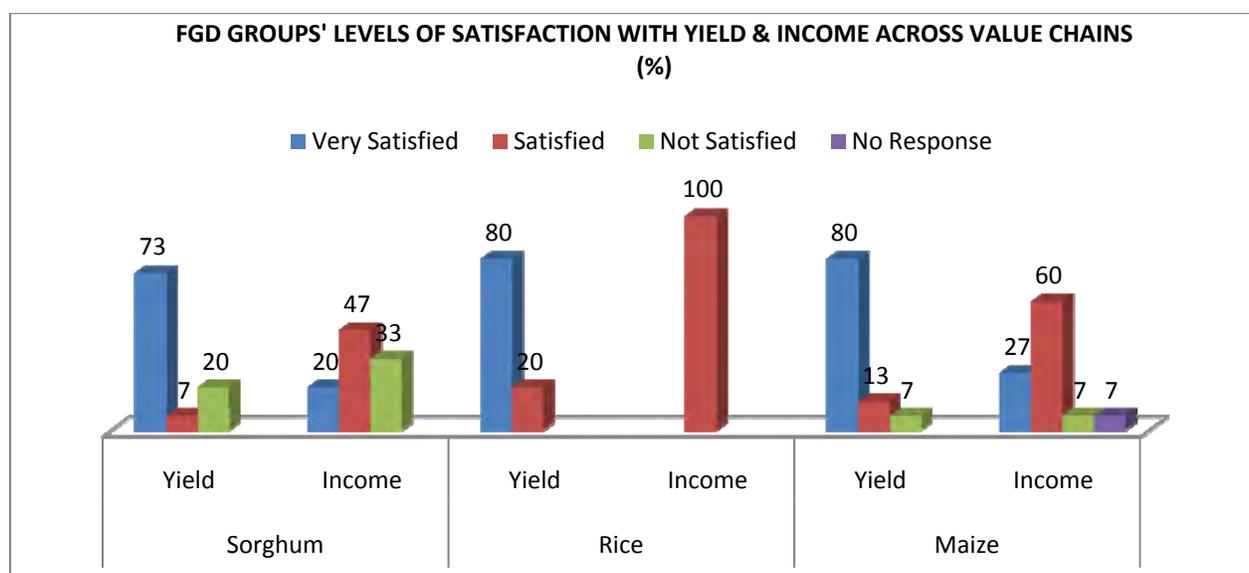
Source: MARKET'S Project Data Table – Disaggregated data, 2012

- Project Design & Innovativeness

Networked producer group members learned and adopted the improved methods introduced through MARKET'S, impacting positively on their farm yields and incomes. The effectiveness of MARKET'S activities at the production level, can be evaluated in three main aspects, namely, yield/productivity per hectare, gross/net farm income per hectare of the crops and the volume and/or value of value-added in each commodity. In all these three aspects, tremendous improvements were recorded (see sections below)

- Beneficiaries Satisfaction with MARKET'S Interventions

FGD results also show that as many as 80 - 100% of the groups feel satisfied to very satisfied with the yield of the crops under MARKET'S. Records show that across the commodities, farm yields have multiplied 2 - 4 times baseline figures translating into increases of 100 – 300% above the baseline figures and 10% - 89% above LOP targets. Also during FGD, more than 72% of the sorghum farmers, 54% of rice, and 29% of maize farmers interviewed reported to have achieved 2 to 3 times increase in per hectare yield/productivity within the first 1 – 2 years of intervention based on the production technologies provided them by MARKET'S. A lower level of satisfaction with income (67% as satisfied/very satisfied) was reported from the evaluation FGDs as compared with yield (80% very satisfaction). Nonetheless, incomes were still above pre-MARKET'S period.



Source: MARKET'S Final Evaluation Field based interviews, July 2012.

- Collaboration with Partners

In carrying out the activities, collaboration was key and MARKET'S brought together all relevant stakeholders in identifying and delivering services. Intervention at the production level involved the development and transfer of production technologies from project partners like IITA, IAR, through facilitators and service providers like SG 2000 in Maize, Diamond Development Initiative in white sorghum, and the ADPs in rice to the producer/farmer groups.

- M&E System Effectiveness

During the KIIs in Kano and Kaduna states, respondents including service providers, facilitators and other collaborators reported that M&E activities were jointly carried out with MARKET'S and that they were vigorous. However, the M&E data and feedback information was generally collected and kept by MARKET'S and was not formally shared. The M&E system could have been strengthened beyond vigorous field work by equal measure of information sharing and review among stakeholders. There is no record of baseline data of number of networked farmers to compare, and MARKET'S data of 853,111 total clients networked out of the 1,200,000 LOP target was not disaggregated to show clients directly networked separate from those networked indirectly.

Likewise, MARKET'S M&E records on revenues/income were neither disaggregated between production, processing and/or other services, nor were commodity per hectare revenues/ income disaggregated; and as such this aspect of the SOW could not be evaluated using MARKET'S data. However, the M&E system did provide indicators of percentage increases in yields on baseline and LOP targets with rice and maize showing the greatest percentage increase from baseline as compared to sesame and sorghum.

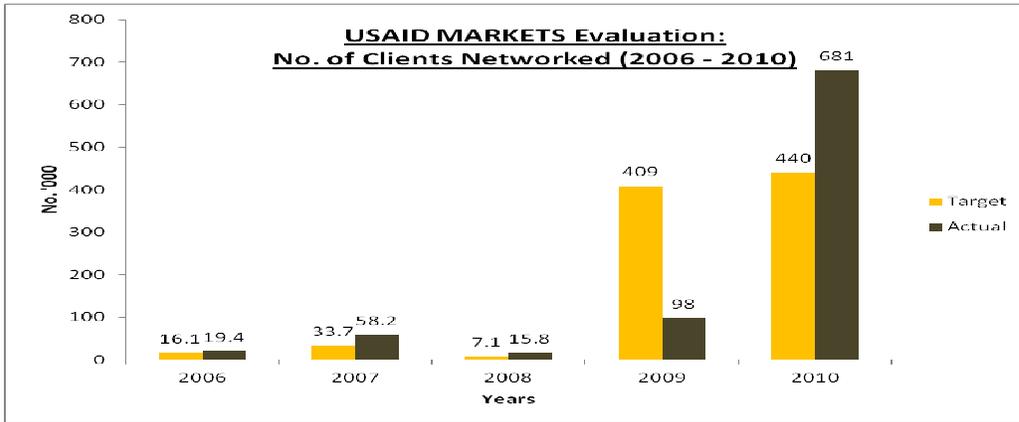
Table: 2.3.3 Yield (mt/ha) and % Increases on Baseline and LOP Targets

	Sorghum	Rice	Maize	Sesame
Yield At Baseline (mt/ha)	1	1.5	120	0.4
Target LOP Yield (mt/ha)	2	3	240	0.8
Actual LOP Yield (mt/ha)	2.2	5.7	4.5	0.9
% Increase on Baseline	120	279	276	130
% Increase on LOP Target	20	89	88	15

Source: MARKETS Project Data Table – Disaggregated Data

- Project Impact

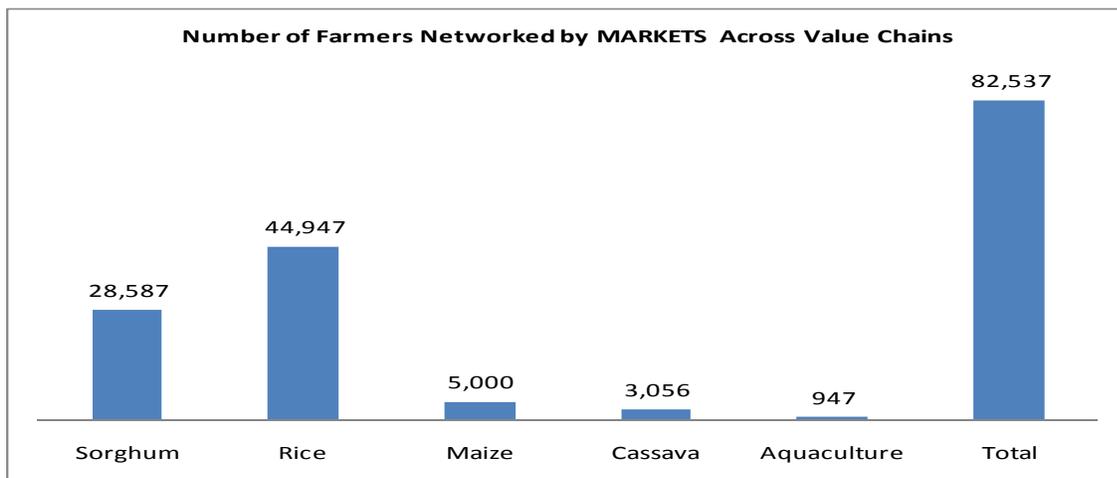
The number of clients planned to be networked was 905, 811 but 853,111 were networked an achievement of 94%. However, there were wide variability on annualized targets and actuals.



Source: MARKETS Performance

Data Table

Across value chain commodities, 82,537 small farmers were directly networked by the MARKETS project. For the 82,537 directly networked farmers, production constraints were removed and improved methods were made available to them by way of better access to the new technologies previously described including higher performing seed varieties, planting methods including seed preparation, use, sowing, spacing, plant thinning, fertilizer selection, supply, use and application, supply and use of chemicals and other labor saving methods, crop and soil management, including pest and disease control and management, harvesting methods, handling, bagging, storage and other post-harvest technologies. MARKETS also supported the small farmers by linking them with respective agro-processors, thereby helping to bring about a large and expanding market for the small farmers’ produce needed by the processors of the commodities. MARKETS M&E records on commodity per hectare income were not disaggregated. However, farmer FGDs confirmed that incomes from commodities increased by 100% to 200%.



Source: MARKETS Project Data Table

Records show that adoption level was 100% in which all directly networked farmers across the value chains adopted all the technologies made available to them.

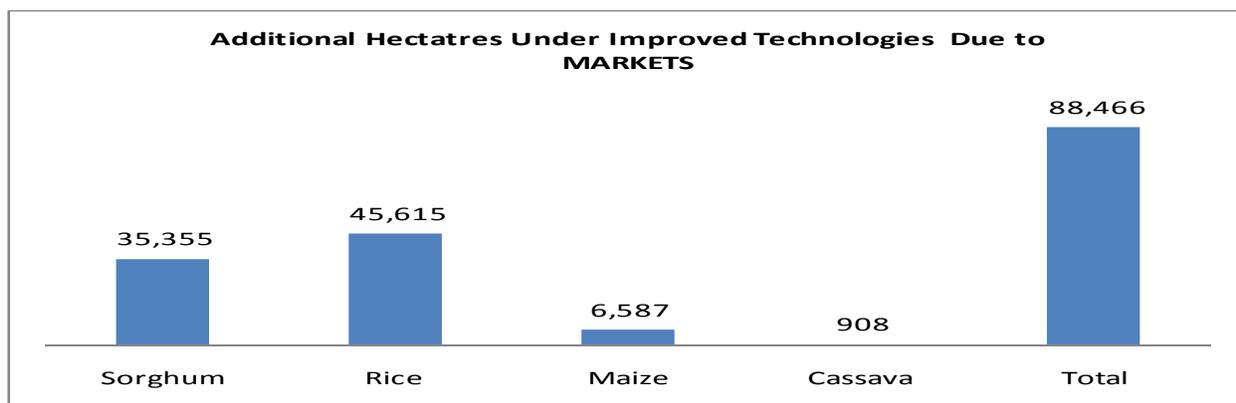
The number of technologies made available and the number adopted are shown in Table 2.3.4. As stated previously the MARKETS technology dissemination activities were based on identified farmer needs jointly identified by the farmers, MARKETs and other collaborators.

Table: 2.3.4 Number of technologies made available to networked farmers and number that adopted in each value chain

	Sorghum	Rice	Maize	Cassava	Aquaculture	Total
No. of technologies made available	10	9	5	1	3	28
No. of farmers that adopted	28,587	44,947	5,000	3,056	947	82,537
No. of farmers networked	28,587	44,947	5,000	3,056	947	82,537

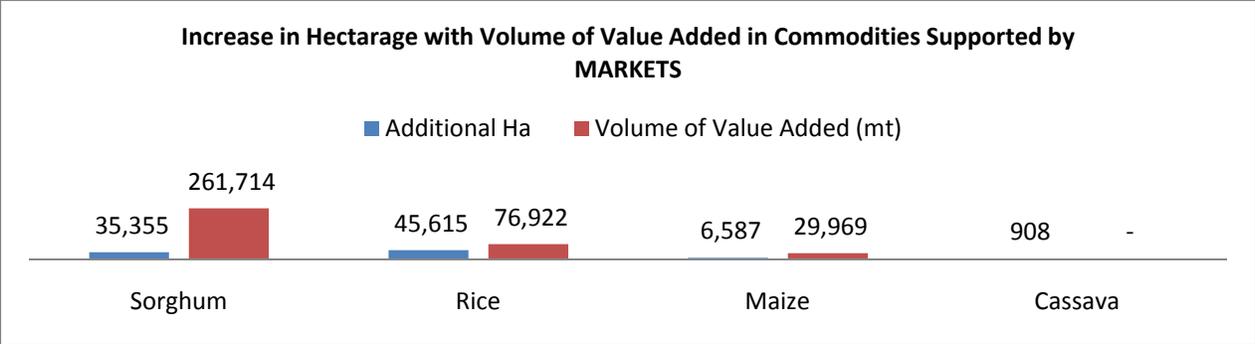
Source: MARKETs Performance Data Tables

In terms of the crop area, MARKETs records show that there has been an increase in land area under improved technologies and management practices of 88,466 ha across all commodities that received support. The following depicts the distribution of additional hectares according to commodities.



Source: MARKETs Project Data Tables – Disaggregated Data

From increases in land area and improved methods, there were increases in both crop output and volume of value added. The chart below depicts the volume of value added across the commodities, except cassava and aquaculture for which data are not available. Data on base outputs of the commodities are not available for computation and comparison with current volumes of output.



Source: MARKETS Project Data Tables – Disaggregated Data

- MARKETS AS A PILOT

At its close in 2010, the MARKETS pilot project had worked with 10 major commodities: rice, maize, cowpea, white sorghum, yellow sorghum, sesame, cassava, cocoa, dairy and aquaculture. The project provided technical assistance, training, and access to production technology to producer groups that consisted of small farmers. The project worked throughout the value chains of these commodities *to remove the binding constraints that had limited the production and sale of these products to their end markets* – the agro-processors. Such constraints included deficient seed, limited availability of fertilizer and other farm chemicals and lack of credit for crop production.

Table 2.3.5

S/n	Commodity	States Covered	Producer Groups	Processors	Service Providers/Facilitators	Partners	Banks
1	Sorghum	Bauchi, Benue, Kano, Kaduna	30 in Kano, 200 in Kaduna,	Aba Malting Plant (via Da All Green Seeds)	KNARDA, KADP, Da All Green Seeds Ltd, DDI, IAR, ADPs	IAR	BoA, First Bank, Stanbic
2	Rice	Kano, Kebbi, Sokoto, Benue, Kwara, Ebonyi,	40 in Kano, others in Kwara, Benue	Olam, Umza Ltd, Kano	KNARDA, EGALF, BNARDA, ADPs, IITA	IITA, IAR	BoA, First Bank, Stanbic
3	Maize	Kaduna	250 in Kaduna	Grand Cereals Ltd, Jos	SG 2000, IAR, KADP	IITA, IAR	BoA, First Bank,
4	Cassava	Ondo, Ogun		MATNA, EKHA	Envoy, IITA	IITA	BoA, First Bank,
5	Aquaculture	Oyo		Durante, Azemor			BOA

With the farmers having learned new methods and practices through practical demonstration and training, and having derived quick benefits from applying them, they have fully adopted and internalized the technologies making sustainability through their own ‘doing’ a strong likelihood. *The great lesson here is that farmers easily adopt new technologies with the support of practical demonstrations and training, and that this can be used in the future to upgrade their organizational management capacities*, e.g., through ongoing coaching, mentoring, to operate within a market economy. Clearly, however, the issues still outstanding at the production level are marketing and credit.

2.4 CREDIT

- Planned Implementation of Activity

Activities were implemented as planned with the Banks. But there seems to be a lack of follow up on the farmer groups and the banks from MARKET'S staff. For instance the inability to follow up on loan repayment by the project staff was one of the reasons why the CAFAN Oyo chapter was not able to claim its interest draw back funds from First Bank. The Funds were available at the Bank, but the producer groups were unaware of this. Similarly, the table below suggests a relatively high interest by farmer groups for bank loans early in the project. But in subsequent years there has been a decline in the number of groups and volume of loans accessed by rice farmers in Ebonyi State. Other reasons included an increase to the interest rate (increased to 12% in 2012), and untimely administration of loans, despite the positive repayment rate, may also give rise to the rising dropout rate of the farmer groups. There is still a need to increase access to agricultural loans for rice farmers in Ebonyi State due to the coming on stream of a 60,000t capacity large scale rice mill (Ebony Agro Nigeria Limited) and three other state owned medium scale rice mills of about 1500t each (4500t per annum). Several other large scale rice mills are also coming on stream across the country.

Table 2.4 Summary of Bank Of Agriculture (BOA) lending to USAID MARKET'S Farmer Groups, Ebonyi (Rice) and Oyo (Cassava) States

Year	No of Groups	Total number in group	Average number per group	Repayment rate %	Total Loan (N)
Ebonyi State					
2007	9	65	7	96	11,920,000
2008	19	220	12	91	21,990,000
2009	11	132	12	86	11,650,000
2010	7	59	8	ND	5,500,000
2011	6	53	9	ND	5,420,000
Total					56,480,000
Oyo State					
2010	24	NA	NA	67.9	21,740,000

Source: BOA Abakiliki and BOA Ibadan. ND = Loan repayment not due; NA = Not available

- The Need for the Activity

Very few farmers had limited access to formal credit, sometimes without a guaranteed market for their commodities. Farmers also lack knowledge and understanding of the banks' credit requirements, such as business plans and loan preparation procedures. Banks on the other hand prefer to provide loans to construction, real estate and commerce sectors.

- Project Design and Innovativeness

The MARKET'S project introduced an innovative credit model in which small farmers have to be linked to agro processors through farmers' groups. This guaranteed a secure market for the farmers and security for the banks. Farmer groups linked to credit had no previous experience with formal credit, nor the knowledge and procedures required to obtain such credit from the formal sector. The baseline on credit to MARKET'S farmer groups was nil at the beginning of the project. Farmers were identified, encouraged to form groups and trained in group dynamics and group cohesion, along with other agronomic and business trainings. They were directly linked to a bank or encouraged to approach a bank and apply for loans in groups. Group lending was based on cross guarantees by group members under the non-collateral based agricultural credit guarantee scheme. The scheme also includes an interest drawback for farmers who repaid their loans in full before tenure period. In addition, MARKET'S also linked agro industries to loans, and acted as professional reference for such industries. Some of these agro processors could not obtain loans from the banks until the intervention of MARKET'S.

The design of the MARKET'S project credit program from 2006 included the "de-scoping" of the USAID funded PRISMS project into MARKET'S activities. PRISMS focus was on microfinance support through commercial banks for on lending to micro and small scale enterprises. USAID DCA program was also introduced into the MARKET'S activities in 2006 to increase commercial lending to the agricultural sector. MARKET'S carried on these activities, along with agricultural value chain lending to farmers and processors, until the end of the project in 2011.

- Beneficiaries satisfaction with MARKET'S interventions

Some farmers (25%) expressed satisfaction with the credit administered by the banks (Figure 1). But most (47%) farmer groups interviewed by the Evaluation Team stated that they were not satisfied with credit from banks for their farm activities. The reasons were not too farfetched. Despite MARKET'S good intentions to link farmers to formal credit, bank loans were untimely, inadequate, and expensive and according to the farmers "the banks do not understand our business".

The delays in credit administration, limitations on volume of funds, lack of professional understanding about agricultural lending and cost of funds cannot be attributed to the MARKETS project, but to the banking institutions. For instance, the BOA limits its loans to a maximum of 250,000 naira per person. (Production cost for a hectare of rice is N280, 000 in Ebonyi State indicating the inadequacy of the funds for expanded production). Some farmers maintained that the amount of a loan was not enough to pay for their on-farm activities. BOA required that 25% of a loan be pre-paid by the farmer before he can get a loan. Further, loans above N150, 000 require a separate approval at the headquarters in Kaduna. This gives rise to a dual loan administration with some farmers receiving their loans early while others receive theirs late - well into the planting season. Many farmers interviewed both in the northern, central and southern parts of Nigeria during the field survey observed that “banks do not understand their businesses”, indicating a need for professional expertise in agricultural activities within the banks. In Kano, farmers stated that interest rates on loans from Stanbic Bank were as high as 25% - apparently because the Bank did not sign into the ACGSF with the CBN. These challenges are not within the direct management interest of the MARKETS project, even though some intensive training for staff of collaborating banks would have assisted in breaking some of these barriers.

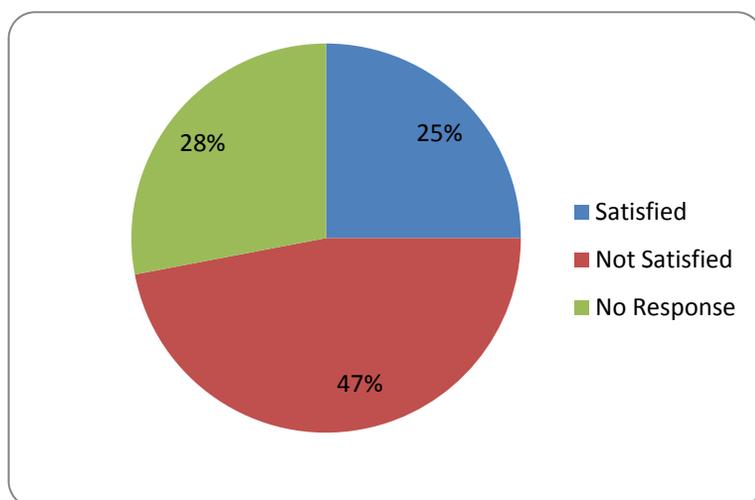


Figure 3 Satisfaction with bank loans by producer groups

Source: Fieldwork, July 2012

- Collaboration with Partners

Evidence from the field supports the fact that loans provided through MARKETS intervention impacted on agro processors, banks and farmers. Durante Fish Feeds reports that MARKETS helped its agribusiness with loan facilitation that amounted to over N250 million between 2007 and 2012. This was also the case for Azemor Fish Enterprises that obtained a 50 million naira loan to build a modern processing plant, expand its business, improve security within its business premises and increase fabrication of insulated fish smoking ovens. The farm agribusiness relationship developed with Olam succeeded initially because the First Bank branch in Makurdi undertook 60% of the risk with loans to the company’s outgrowers.

In the opinion of the First Bank credit officer, the collaboration between Olam, First Bank and the outgrowers was well intended, but the mindset of the farmers negatively affected it. The bulk of the problem started in 2008 when some areas experienced flood and drought in the same year. The farmers expected NAIC to pay off their debts, but NAIC had to put a hold on that because some farmers who were not affected were taking advantage of the process and would not pay off their debt. There were also changes in project directions during implementation. For instance, the loans given at the beginning of the program was determined by the input given for 1 hectare of land; N55,000 was provided for inputs, but government subsidized fertilizer for famers led to a reduction in the loan amount to N37,000 per hectare. There were also

changes in the price offered by the company for paddy rice. And the price offered by the company was no better than the open market price, especially as prices tended to increase over the post-harvest period, but the catch was the inputs and a guaranteed market offered by the company.

- M&E System Effectiveness

MARKETS exceeded the LOP indicator (LOP = \$57,000,000) on the amount of credit leveraged by 14%. The MARKETS approach to credit development was probably instrumental in achieving project results. But the table below suggests that loans provided under the agricultural value chains accounted for 26% of the total loans leveraged by the project over its life span. This may provide an indication about how adjustments in project activities may have contributed to producing greater project results on credit, but have affected efforts in providing credit to value chain development – the initial core activity of MARKETS.

Table 2.4.1 Value Chain Loans Versus MFI Loans

Year	Value Chain Loans (\$ m)	MFI (\$ M)	Total
2006	1.5	5.54	7.04
2007	1.74	6.083	7.823
2008	4.38	16.874	21.254
2009	9.07	5.89	14.96
2010	0.41	13.73	14.14
Total	17.1	48.117	65.217

Source: MARKETS Project, 2012

The MARKETS M&E system was effective in tracking loans provided to farmers and it was observed that data obtained from the banks was consistent with what was recorded in the MARKETS M&E database. However, at the program level greater focus should be on linkages to loans for agricultural activities.

- Project Impact

The table below shows the performance of MARKETS in terms of leveraging loans to farmers over the life of the project. The table suggests that it costs the project about 5 dollars for every loan facilitated, while credit leveraged per dollar spent by the project was between 46 and 56 dollars. The table comes from the MARKETS project, and there is no comparative basis to conclude that the project was efficient in loan delivery to farmers.

Table 2.4.2: Project cost per dollar for credit leveraged.

CREDIT AND COMMERCIALIZATION	MARKETS	Bridge to MARKETS II
Number of loan Beneficiaries	329,091	83,379
Project cost	\$ 1,671,895	\$452,255
Amount of credit leveraged for beneficiaries	\$76,508,572	\$25,217,073
Cost per no. of banks and MFI loans facilitated	\$5	\$5
Credit leveraged per \$1 spent by project	\$46	\$56

Source: MARKETS Project, 2012

Records from MARKETS show that 93% of borrowers in the PRISMS – Lift Above Poverty Organization (LAPO) loan portfolio were female and 100% for the Development Exchange Center (DEC) loan portfolio. Repayment rate for female borrowers was 100% between 2008 and 2009.

- MARKETS as a Pilot

The MARKETS approach to credit for farmers and agro processors is innovative and commendable. Prior to the MARKETS project most farmers relied on the expensive informal sector as a source of credit. Farmers trained by MARKETS accessed loans across the country from several public and private sector banks. The Evaluation Team visited the Bank of Agriculture (BOA), First Bank Nigeria (FBN) Plc, United Bank for Africa (UBA) Plc, Sky Bank and Stanbic Bank. Aside from the BOA, all the other banks were private sector banks. The BOA loans were provided at 8% interest, until 2012 when interest was increased to 12%. A 2% interest rate penalty was added for payments made beyond 12 months tenure of the loan as reported by BOA. The FBN and UBA also provided loans at 8% interest. The loan by FBN to rice farmers in Benue under the Olam scheme was, however, at 17%. Both banks participate in the non-collateral Agricultural Credit Guarantee Scheme (ACGS) Fund of the FGN. Not all Nigerian banks are part of the Agricultural Credit Guarantee Scheme.

According to the BOA in Abakiliki, the USAID MARKETS linkage of rice farmers to the bank “is one of our best loan portfolios and has continued to date”. Less than 10% of clients are in default. The same was observed from the BOA, Ibadan who administered loans to cassava farmers in Ekiti and Ondo States with an off-taker agreement with Matna Foods Starch mill in 2010. The value of loans reported by MARKETS for the Ebonyi Rice farmers seems to be consistent with what was found at the bank records. Data from the bank also shows that some groups have returned in subsequent years for loans suggesting a change in farmer attitudes and behavior to formal bank credit.

However, the story is different for the First Bank of Nigeria Plc Makurdi Branch. The bank provided credit to farmers organized by MARKETS for the Olam Rice processing in Markurdi. The Bank undertook its due diligence in the scheme through spot checks on the farmers and farm surveys, and MARKETS was also involved in loan recovery. *While these activities were implemented as planned with MARKETS, they were not successful from the point of view of the bank.* First Bank gave out 206 million as loans to Olam farmers since 2008, and so far the bank has been able to recover only 65%. The loans were given out with an interest rate of about 17%. Out of the loans, only about 45% of the farmers paid back willingly, 20% paid after a recovery drive, but there is still an outstanding unpaid balance of 102 million. In the view of the bank this was a substantial loss. In terms of benefits, the bank lost income in unpaid interest and principal and so was not satisfied with the collaboration. There is apathy for agricultural loans because of the experience First Bank had with farmers on loan payment. This changed the banks’ attitude towards the company’s proposal to start another project in 2009. The First bank turned down the proposal because of their experience with farmers under the scheme between 2008 and 2009. *However, the non recovery of loans in the scheme may not be unconnected to the very large number of farmers (about 6000), which seems to be relatively unmanageable and wildy for logistic and administrative purposes.* As a pilot scheme, MARKETS engaged in successful/sustainable and in unsuccessful/unsustainable ventures with processors, outgrowers and banks that can help better plan the credit component in MARKETS2. These mixed experiences and lessons from the pilot project provide a basis for the project to target its credit activities and optimize the size of its out grower schemes within manageable limits to improve loan administration. Adjustments in the light of these lessons will likely improve the long term outcomes of the project.

2.5 PROCESSING AND AGRO INDUSTRIES

- Planned Implementation of Activity

The project was timely in the execution of activities with agro processors (see Table 2.5.1 below).

There were reports by farmers that some of the agro processors were not honoring contract agreements. This was observed in the case of Aba Malting plant bulk buyers in Kaduna. This was due to significant increases in the prices of sorghum over the last two years, and the agro processor could not afford to buy. Otherwise they were going to incur significant losses. There were also cases of side selling in the case of the rice value chain for Olam, basically because of the existence of alternative markets. Issues of social capital due to poor contracting procedures are not new in farm agribusiness relationships in SSA. Honoring contracts and side

selling by farmers may not necessarily be blamed on the MARKET'S project, but it does show some lapses on the part of the project. That these factors are arising suggests that farm agribusiness relationships are beyond just a business relationship. In hind sight, this is one area (farm agribusiness contracting and corporate social responsibility) that the project could have provided some innovative assistance using policy advocacy and/or the deepening the relationship between farmers and agro processors.

Table 2.5 .1 Agro processor assessment of collaboration, timeliness of activities and additional needs for the MARKET'S project

S/N O	Agro processing Firm	Collaboration	Timeliness	Needs
1	Small Scale Rice Processors: Tony Mouneke, Owner of Annes Agro Processing Industries, Small Rice Mill Processor, and former Chair, Abakiliki Rice Milling Company Limited, Abakaliki, Ebonyi State	+	Y	Y
2	Ebony Agro Rice Mill Ikwo, Ebonyi State: Okoroji Mathew, Finance and Admin Manager, Engr Ibeh, Plant Manager	+	Y	N
3	Abakiliki small rice Processing Company Ltd: Joseph Ununu, Chair of the Small Scale Rice Processors Association and owner of the Rice Mill Company Limited, Abakaliki, Ebonyi State	+	Y	Y
4	Aquaculture: Azeez Oladotun Bello, co-owner, Azemor Agribiz Ltd. Ibadan, Oyo State	+	Y	Y
5	Aquaculture: Mrs. Oluseyi Adeleke-Ige, General Manager, Durante Fish Industries, Ibadan, Oyo State	+	Y	Y
6	Agro industry: Mr. Dele Ogunlade, MD/CEO MATNA Foods Company, Akure, Ondo State	+	Y	Y
7	Glucose syrup: Yemisi Iranloye, Former MD Ekha Agro Glucose Factory, Ogun State	+	Y	Y
8	Amuda Abdul Fatai: Olam Coordinator	+	Y	Y

Source: MARKET'S Final Evaluation Field based interviews, July 2012.

- The Need for the Activity

Small and large scale agro processors are the lynch pin of MARKET'S value chain development activities. They provide the market for products produced by MARKET'S trained and supported farmers and groups. Table 2.5.2 presents the agro processors supported by MARKET'S in each commodity value chain.

Table 2.5.2: MARKET'S supported Agro Processors

Commodity	Agro Processor	Location (State)
Aquaculture	Azemor Fish Industry	Oyo
	Durante Fish Feed	Oyo
	Grand Cereals	Plateau
Cassava	Ekha Agro	Ogun

	Matna Foods Starch Mill	Ondo
	Nigeria Starch Mills	Anambra
	Novum Cassava Flour Mill	Nasarawa
Cowpea	Convenient Home Foods	Kano
	El Bhi Ventures	Niger
Rice	Abakiliki Small Rice Processors	Ebonyi
	Arewa Rice Mill	Kano
	Ebony Agro	Ebonyi
	Labama Global Ventures	Kebbi
	Olam Nigeria Limited	Benue, Kwara
Sorghum	Aba Malting Plant	Abia
Sesame	Olam Nigeria Ltd	Kano
	Magnum Associates	Nasarawa

Of the 17 agro processors the Evaluation Team visited a total of 7 namely: Azemor Fish Industry and Durante Fish Feed in Oyo State; Ekha Agro Glucose manufacturer in Ogun State; Matna Foods Starch Mill near Akure in Ondo State; Ebony Agro Nigeria Ltd (large scale rice mill) and Abakiliki Small Rice Processors Ltd in Ebonyi state; and Olam Nigeria Limited in Benue State. The CEO of the Nigerian Starch Mill was interviewed by telephone – making it a total of eight agro processors interviewed.

- Project Design and Innovativeness

The MARKETS project assisted agro processors with the formation of outgrowers, i.e., building their outgrower schemes for the crop commodity chain, and strengthened associations for the aquaculture sector. This process was done for Olam Nigeria Ltd. and for the Abakiliki Small Rice Processors. By expanding knowledge in fish feed and fish preservation through smoking, MARKETS provided a market for Durante Fish Feed and Azemor insulated fish smoking cabinets.

- Beneficiaries satisfaction with MARKETS interventions

In all cases, the agro processors saw their collaboration with the MARKETS project as positive. The agro processors benefitted from increased output and increased capacity utilization in their plants, expanded employment and increased income and profits.

- Collaboration with Partners

For Cassava value chain MARKETS, working through IITA, brought Government Ministries Departments and Agencies (MDAs) of this value chain (Ekha Agro, NSM, Matna and NOVUM) together for the first time to recognize their common goal(s), namely consistency in raw material supply of cassava roots, delineation of raw material production areas and the introduction and massive multiplication of improved cassava roots. For the commodity chains (rice, cassava), MARKETS enabled a tripartite relationship between the banks and the agro processors to assist farmers with inputs. The banks took a significant risk off the agro processors. While this relationship was effective, some banks lost some money in the process. For the agro processors, technology also improved, especially in the case of savings in smoking time and expanded fish feed mill for Azemor and Durante, while improved seeds increased significantly for agro processors in the respective crop commodity chains. This increased supply to the factories and capacity utilization for all agro processors. Some of the relevant agro processors, e.g., Olams Rice Mill, Durante Fish Feeds and Azemor Fish Enterprises, also diversified their products and/or offered other relevant services.

- M&E System Effectiveness

The MARKETS M&E system was effective in tracking the amount of gross revenue generated, new permanent jobs created in assisted enterprises, as well as the number of people trained for the agro processors. These indicators were consistently tracked during the project period. Understandably, gross revenue from the agro processor level was significantly higher than producer income, while jobs created were more permanent, but significantly lower than jobs created at the farm level. It was also observed that data obtained from the agro processors were consistent with what was recorded in the MARKETS M&E database. However, the triangulation of the data had to be verified from the central database, suggesting a need to provide databases in the zones to provide a better understanding of how the data migrated from the agro processor level to the central database. For the agro processors, certain impact related baseline information at the agro processor level was not recorded in the database such as capacity utilization, output, and credit before project intervention. The information was provided during interviews by agro processors.

- Project Impact

The extent to which agro processors experienced expected changes in their yields, income and so on is presented in the Summary Table 2.5.3 that follows with indicators for selected agro processors before and after MARKETS intervention.

- MARKETS as a Pilot

With a few exceptions, e.g., NSM, the agro processors interviewed by the Evaluation Team maintained that the MARKETS value chain project has expanded their businesses in terms of capacity utilization, employment, income and diversification into other product lines.

There are additional needs that should be addressed to strengthen the agricultural value chains and the sustainability of guaranteed markets from agro processors. The additional needs include intensification of training and expansion to new farmer groups; development of mechanisms that will provide access to agricultural machinery including tractors, planters, harvesters, winnowers and threshers in order to increase efficiency at the farm level. *Increased efficiency at the farm level ensures consistent supply of raw material for the agro processors.*

Note: Security issues in Plateau State affected value chain development for maize between farmers in Kaduna and Grand Cereals Company Ltd. located in Jos, Plateau State. Security issues also impact project activities with Convenient Home Foods and Olam Nigeria Ltd. in Kano. Ongoing insecurity issues in the North will no doubt continue to adversely impact agro processors and MARKETS' long term value chain development, and plans are needed for contingencies.

Table 2.5.3. Summary Performance of selected Agro Processors before and after MARKETs project intervention

Agro processors	Azemor Fish Enterprises		Durante Fish Feed		Ekha Agro Ltd		Matna Foods Ltd		Olam Nigeria Ltd	
Evaluation Criteria	Before MARKETs	Because of MARKETs	Before MARKETs	Because of MARKETs	Before MARKETs	Because of MARKETs	Before MARKETs	Because of MARKETs	Before MARKETs	Because of MARKETs
Number of farmer/ Groups	NA	NA	NA	NA	0	30 (2000 farmers)	0	80	<500	6000
Credit (Value)	0	N50 million	0	>N250 million	Own Fund	Own fund + Bank loan to farmers	Own Fund	Own fund + Bank loan to farmers	Own fund	Bank + Olam (shared exposure to risk)
Output (processors)	<150kg/day	500kg/day	0	30t/mo in 2006 70t/mo in 2008; 100t/mo in 2010 130t/mo in 2011	2700t in 2009	9000t in 2011	350t in 2009	4200t in 2012	1000t in 2005	15 -20000t of rice in 2008
Income/profit	30%	100%	20%	60%	<5%	146%	<1%	116%	0%	125%
No. of employees	8	16	71	110	30	55	60	80	5 - 30	140
Technology (Yield t/ha)	Smoking time 72 hours	Smoking time 24 hours	Limited capacity feed mill	Expanded & modernized feed mill	10t	35 – 40t	<10t	25t	1.45t	4.0t
Training/Extension (<i>facilitators</i>)	No training	Trained & Provides training services	No training	Supports training & workshops	No Training	Extensive Training	No Training	Extensive Training	Limited training	MARKETs training was substantial
Inputs (raw materials: processors)	Own pond	Own pond + Services	Substantial imports	Import + local maize & soya beans	1000t/ month	3700t/ month	Near 0	1800t/ month	1000ha covered	6000 ha covered
Capacity Utilization		90%	30%	Expanded Capacity (400%)	0 Processing shut down b/c of lack of feed stock	year 1 = 15% year 2 = 25 to 30% year 3 = 50%	5%	60%	<2%	40%
Product/service Diversification		Yes		Yes		NA		NA		Yes

Source: Evaluation Team.

3. CROSS- CUTTING ISSUES

The crosscutting issues discussed in this chapter include MARKET'S interventions in food security and nutrition, gender and policy. The evaluation found that these crosscutting issues were not explicitly taken onboard MARKET'S at design. They were brought in through additional funding opportunities between 2008 and 2009, broadening MARKET'S activities, often into areas outside of MARKET'S core value chain interventions.

3.1 - FOOD SECURITY AND NUTRITION

Food security and nutrition are intricately interlinked.

Food security exists when all people at all times have physical and economic access to sufficient, safe, nutritious food to meet their dietary needs and food preferences for an active and healthy lifestyle.” World Food Summit, 1996

From this definition food security encompasses:

- Food availability: sufficient quantities of food available on a consistent basis;
- Food access: sufficient resources to obtain appropriate foods for a nutritious diet;
- Food quality and use: appropriate use of varied, safe and nutritionally adequate food, based on knowledge of basic nutrition and sanitation – Nutritional aspect.

- Planned Implementation of the Activity

MARKET'S' focus for the first two years was on increasing productivity, value addition and incomes – this promoted food availability and access. The nutrition component, the Family Nutrition Support Program (FNSP) funded through PEPFAR, was launched in September 2008 to provide nutritional and income-generating support to Orphans and Vulnerable Children (OVCs) enrolled in PEPFAR programs. As noted in the discussion that follows, in just 24 months (Sept 2008 to 2010) the FNSP was able to promote positive behavior change in food insecure households and pave the way for similar private sector led food security and nutrition ventures.

- Need for the Activity

Nigeria is one of the countries with a growing problem of chronic malnutrition, particularly in the Northern States, with Kano alone accounting for over 11% of all malnourished children in the country. The major problems facing the country's children, particularly children under 5 are: protein malnutrition, vitamin A deficiency and iron and iodine deficiencies. The causes of this malnutrition range from social and economic factors to the effects of the HIV/AIDS pandemic. OVCs whose families have been infected or affected by HIV/AIDS are particularly vulnerable. Nigeria stands to benefit from well designed and targeted food security and nutrition interventions.

- MARKET'S FNSP Design, Innovativeness and Outcomes

Launched at a time when the MARKET'S value chain model was already established and ongoing, it was not very easy to fully incorporate the Family Nutritional Support Program (FNSP) into value chain activities. FNSP ended up as a standalone component of MARKET'S, continuing with the PEPFAR activities in collaboration with PEPFAR implementing agencies and partners.

Through the FNSP, MARKET'S, in collaboration with other NGOs, agro-processors^{sv}, and Community Based Organizations (CBOs): i) provided nutritional supplements for the immediate food needs of severely malnourished OVCs; ii) provided microenterprise skills training to OVC caregivers and vulnerable households; iii) designed and implemented an integrated nutrition and livelihood training program for vulnerable households that taught microenterprise fundamental skills, homestead gardening, household asset management and basic sanitation and child/maternal nutrition, including best practices in breast feeding, diet diversification and preparing balanced meals with locally available resources; and iv) facilitated the

collaboration between Joint Aid Management and Grand Cereals Ltd. to initiate the production of Ready-to-Use Therapeutic Food (RUTF) for severely malnourished children.

Through these activities MARKETS distributed food supplements to 82,906 OVCs in 14 states, trained/facilitated training for 11,572 OVC caregivers through CBO activities, and trained 32,751 caregivers through the microenterprise and homestead gardening training program. Post-training evaluation of a sample of 353 beneficiaries of the livelihood and household nutrition training conducted 8 weeks after the training showed substantial improvements: 98% reported increase in incomes; 95% reported increase in savings; 75% reported intension to exclusively breastfeed their next child, up from 20% before the training; 99% reported washing hands with soap, up from 46% before the training; and 78% reported having a home garden, up from 27% before the training^{xvi}. A 2010 impact assessment of the food supplement component also found that the majority of beneficiaries, 86.1% of children and 84.4% of caregivers, liked the food; and over 70% of caregivers indicated their willingness to spend limited resources to purchase the supplements, if the supplements were made available on the market^{xvii}.

These results do indeed indicate that “an integrated approach to livelihoods and nutrition can improve behavior change in food insecure households”^{xviii}, and positively affect food availability, access and utilization. The willingness of caregivers to purchase nutritional supplements is an indication that the manufacture of nutritional supplements could offer a potential for sustainable food security-focused enterprise development.

- Beneficiaries Satisfaction with MARKETS FNSP

The MARKETS Evaluation Team conducted FGDs and KIIs with beneficiaries and service providers in Benue and Kano. All respondents in Kano rated the program 100% with regard to implementation, collaborative work and positive impact on beneficiaries’ businesses and children’s welfare. What made the program so successful, in their opinion, was the fact that it was built on felt needs, thanks to the community assessment. MS Bello, a CBO facilitator, recommended that the state should emulate this approach, add access to water for household and garden use, and let it ‘go round’. The Evaluation Team was also informed that a group of youths has been mobilized to establish a cottage industry to produce a cheaper version of MARKETS’ infant nutritional formula using local materials. This is another indication that the nutritional supplement program can be sustained. The Benue respondent, who felt that agriculturists are only concerned with production, pointed out that involving a nutritionist in the program would have made a big difference. She certainly has a point. Nutritionists and nutrition training are part of what made the difference in Kano.

- Collaboration with Partners

Collaboration was key to the success of MARKETS FNSP. Collaborators included: PEFAR IPs, processors, CBOs and other NGOs. According to the CBO facilitator in Kano, the process was also very participatory and inclusive, involving community heads and other local resource persons like the case of a “famous Pakistani” (words of informant) who provided a space for meetings.

- M&E System Effectiveness

Records^{xix} suggest that MARKETS had initial M&E challenges with the FNSP due to co-implementation with PEPFAR IPs. But after the first year, MARKETS designed a reporting template and established a direct relationship with the IPs to ensure timely and accurate reporting, particularly for the nutritional supplements aspect of the FNSP. Also, more FNSP-specific indicators^{xx} were incorporated into the 2010 PMP. As is evident by the above reported achievements of the FNSP, this revised M&E system was able to effectively track and report on the performance of the FNSP.

- MARKETS FNSP as a Pilot

Despite successes of the FNSP, the Evaluation Team’s opinion is that nutritional supplements, micro-enterprise training and small homestead gardens, are just a part of the solution to Nigeria’s major food security challenges, particularly the micro-nutrient issues facing the country’s under 5 year olds. Tackling these problems would require a broad approach that encompasses increased food availability and access, crop

diversification, targeted crop nutrient fortification, increased/sustained nutrition education and related socio-economic and health services. Such efforts call for broader public private partnerships, including agricultural research institutions, relevant government departments, and other relevant NGOs and specialists.

3.2 - TRADE AND TRANSPORT AND AGRICULTURAL POLICY

- Planned Implementation

Trade, transport and agricultural policy interventions were included in the MARKETS project and additional funding provided between 2008 and 2009. MARKETS implemented all of the policy and related initiatives as planned. The interventions were based on stakeholder needs identified during collaboration meetings, workshops and forum of engagements.

- Need for the policy interventions

The design and focus of MARKETS policy interventions described below, would suggest that these activities were driven more by available funding and broader policy objectives than by actual felt need related to MARKETS immediate core AVC activities.

- Design and Innovativeness

MARKETS launched this component in 2009 and provided support for improving Nigeria's business and investment climate by addressing constraints that have stifled the growth and competitiveness of its enterprises. In particular, the intervention was designed to address regulatory and process issues that constrain the flow of goods within and across borders. This component, therefore, has a long term perspective and was designed to stimulate stakeholder engagement and involvement in achieving long term reform objectives. Support activities included reforms in selected transport corridors, including the transport infrastructure, modernization of trade and commerce policies and building capacity in trade policy among public and private stakeholders.

- *Transportation:* The transport corridor subcomponent provided support to the: 1) creation of a Corridor Management Group (CMG) for the Lagos-Kano-Jibiya (LAKAJI) transport corridor based on public-private stakeholder consensus. The corridor connects the major entry ports of Apapa and Tin Can in Lagos through 8 states terminating at the Jibiya and Daura borders with the Niger Republic; 2) fastpath analysis of the LAKAJI Corridor, a computer based toolbox for quantifying cost, time, reliability and other operational factors associated with moving cargo along the LAKAJI corridor; 3) port decongestion initiatives and two studies. The first on truck entry and exit control systems at the ports, and the second on truck queues and turn around-time between port entry and exit; 4) cassava logistical solution, a computer-based Cassava Supply Management System (CSMS) designed to help the cassava factory supplier network up-scale to other commodities.

- *Customs Modernization:* This subcomponent provided reinforcement to the Nigeria Customs Services (NCS) efforts to simplify and modernize import/export processes, procedures, documentation and other regulatory measures and included: 1) redrafting of the Customs Act; 2) outsourced audit services; 3) risk management work; 4) time release study; 5) analysis of NCS capacity to implement the Authorized Economic Operator System to expedite cargo clearance; 6) training in 'Safe Search' practices; and 7) transit MoU.

- *Trade Policy and Capacity Building:* Nigeria's trade policy environment is characterized by high tariff and high non-tariff barriers, and it is costly and inefficient. MARKETS intervention was to promote market-based principles and stimulate private sector involvement and participation in policy design and implementation. Assistance was also provided to standards management institutions that often created unintended barriers to free flow of goods to the marketplace. Activities included: 1) NAFDAC laboratory support – the agency received the ISO 17025 accreditation – the globally recognized quality standard in testing and conformity; 2) the National Association of Nigerian Traders (NANTS) work – drafting of Nigeria's Trade and Industrial Policy, and Assessment of Applied Tariff on Selected Products; 3) training on

export potential under AGOA; and 4) Gap Analysis of the Implementation of the ECOWAS Trade Liberalization Scheme.

- Agricultural Policy: Activities on agricultural policy were undertaken by MARKETS under a subcontract to IFPRI within the GFSR funding. The main activities under this component were analytical and implementation support to the CAADP process; analytical and technical support in the design of Nigeria's agricultural strategy, actionable research on key issues, capacity strengthening and policy dialogue and communication. These activities improved the knowledge base available for applied policy analysis; addressed specific gaps in knowledge needed in strategy development and strengthened the national capacity for practical applied policy research that directly informs agricultural and food security strategies and policies.

- Policy Interventions: Beneficiaries Satisfaction and Impact

Even though MARKETS implemented the trade and transportation component for only 18 months, the impact on beneficiaries in both private and public sectors was profound. Key informants reported that their capacity on evidence-based policy analysis and advocacy was strengthened, and they were exposed to new tools of analysis for trade policy development and review. Also, working relationships between the government and other private sector organizations were strengthened, a better Public-Private-Partnership platform developed and public-private dialogue enhanced.

- Collaboration with Partners

Key informants interviewed reported that the process of implementing activities was collaborative, open and transparent and that stakeholders were satisfied with both the processes and the outcomes. The fact that the interventions and their processes were openly participative meant they were "home grown" and, therefore, had ownership and buy-in by relevant stakeholders, thereby assuring relevance and sustainability.

- M&E System Effectiveness

MARKETS M&E framework was revised in 2009 to include indicators and targets reflecting activities of the new policy components of the program. The project strived to attain its indicator targets under both the trade/transport and the agricultural policy components. But the Evaluation Team observed that the latter's indicators and targets were focused on the process of conducting policy analysis and publishing the results in related briefs and papers. The relationship between IFPRI's work and actual policy change was not monitored.

In March 2010, the MARKETS project was advised to review its indicator on increased public expenditure and investments in the agricultural sector (indicator 25, 2010 PMP), because it was not within the manageable interest of the project. (see USAID MARKETS Assessment, March 2010). Unfortunately, the advice was not heeded and the project could not report sufficiently on this indicator. The same document also advised that the agricultural policy program should take a more realistic and effective approach to policy change involving a measurable 13 step process. But, albeit from the activities in this component of the project, this recommendation and advice was not applied; rendering the whole agricultural policy process under the MARKETS project ineffective.

- Trade, Transport and Agricultural Policy Activities as a Pilot

The evaluation team was constrained in its inability to meet with the key implementing partners such as IFPRI and their beneficiaries and relied primarily on reports and secondary data for their analysis, conclusions and recommendations.

3.3 GENDER

- Planned Implementation of the Activity

While women play a critical role in the Nigerian agricultural sector and in food security, gender was not a focal area within USAID when the original MARKETS project was designed (circa 2005), but it has become

one in the past three years. Gender was not explicitly detailed in the Statement of Work of the Final MARKETS Evaluation. It was added informally at the request of the USAID Mission with the understanding that the Evaluation Team would place priority on the SOW elements, and provide feedback as time and resources allowed.

In September 2008 \$3.8 million was added to the MARKETS project from funds with the US President’s Emergency Plan for AIDS Relief-funded nutrition program. This led to the launching of the MARKETS’ Family Nutritional Support Program (FNSP) livelihood and nutrition modules geared toward women.^{xxi} While the funding is relatively modest, the targeted activities and resulting impacts were impressive, as noted below in beneficiary satisfaction.

- Need for the Activity

“The integration of gender issues into all stages of development assistance planning, programming, and implementation is of critical importance to USAID’s mission. This [which is also the core of USAID’s March 2012 Gender Equality and Women’s Empowerment Policy], is not only an Administration priority, but also an essential part of effective and sustainable development.” USAID Executive Message, Dec 16, 2009 (with updated USAID emphasis)

Subsequent to the directive, a Gender Assessment of the MARKETS and BtM2 was conducted by Chemonics International and officially released in April 2012. The Gender Assessment provided a mini assessment for each value chain and highlights of the livelihood and nutrition training. The assessment provides the beginnings of a baseline for moving forward and going deeper with Women’s Economic Empowerment (WEE) in MARKETS II. It identifies the value chains where women play a more prominent role, and the constraints along the value chain. The nutrition program impact assessment showed a high degree of economic impact from the training modules.^{xxii}

- Project Design & Innovativeness

MARKETS project efforts to include women throughout the value chain was demonstrated by examples of successes achieved in value chain development and credit activities. The Gender Assessment reports these in full. The impacts from the nutrition activities were assessed independently. MARKETS placed a special emphasis on training women’s groups on how to access finance, since credit was seen as a dominant constraint in all of the value chains.

- Beneficiaries Satisfaction

The MARKETS Evaluation Team conducted focus group discussions with eleven women’s rice, sorghum and maize producer groups in Kano and Kaduna states. The all women FGDs showed its highest satisfaction was with the MARKETS training and impacts on yields. Factors outside of MARKETS’s direct control, notably access to fertilizer and credit, were cited as problematic among the women farmers and are reflected in the 27% ‘not satisfied’.

Table 3.1 Women’s FGDs Satisfaction with MARKETS Activities

Very Satisfied 64%	Satisfied 9%	Not Satisfied 27%	No Response 0%
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- Collaboration with Partners

No data collected from the fieldwork on this element.

- M&E System Effectiveness

The first MARKETS M&E System was designed with 26 indicators of which 8 were disaggregated by male, female and youth: 1. # of new jobs created; 2. # of clients networked into MARKETS; 3. # of client enterprises benefiting from MARKETS; 4. # of people trained in agricultural production; 5. # of people trained in private sector growth; 6. # of people using market information; 7. # of people receiving extension services; and 8. membership of sustainable producer associations receiving MARKETS support. By 2010 there were 36 indicators and gender was further disaggregated by how clients were networked, e.g.,

outgrowers, NAEC training, Fertilizer Voucher Program and for cocoa, aquaculture and cassava value chains. The nutrition activities were geared towards females and reported accordingly. The M&E system did not disaggregate for youth, e.g., nutrition and microfinance, as had been expected.

- Project Impact (findings from the fieldwork)

The evaluation found that MARKETS worked mainly with male farmers. Only a few women were involved. According to gender disaggregated data submitted by ABC, women made up 8% of MARKETS participants in Kwara by the time of the evaluation. Discussions with key informants indicated that rice is mainly a man's crop in Kwara. Men do the direct production and women take care of post-harvest activities – threshing, winnowing, sorting and marketing for their husbands. Women typically produce melon (for seed), maize, beans, cassava, etc. (Note: MARKETS recognizes that certain crops are more or less female dominated as well as production sub-activities.)

During the FGDs conducted by the Evaluation Team, women's attendance was very low (3% in 2 of 4 locations visited). Those that attended were shy and reluctant to participate. The few who spoke out said they were happy to be part of MARKETS, indicated that women also benefited from the yield increases and some local women were able to build houses like most of the male beneficiaries. The women respondents consistently indicated that rice production was too difficult for them; and suggested that if MARKETS had included maize, soya beans, cow pea, sesame, cassava and some simple processing activities (groundnut, shear butter), many more women would have participated in MARKETS interventions. Apparently these women were not aware of MARKETS activities in some of these value chains.

- MARKETS as a Pilot

Suggestions emerging from the discussions on ways to encourage women's involvement in MARKETS going forward included, i) increase the hire of female Extension Agents (EA). These will sensitize the women and work with them; ii) sensitize the traditional leaders – Emirs and other community leaders. These responses from Kwara bring out the gaps resulting from failure to take gender into consideration in the original project design of MARKETS.

It is important to integrate gender and specifically Women's Economic Empowerment (WEE) into the project cycle from the very start. Gender should be integrated into the M&E and impact assessment system from the start as well. A thorough gender baseline study is, therefore, requisite.

1. WEE should be included in the strategic framework and PMP for a project. This should make explicit what the WEE objectives are within the broader context of how gender specific constraints will be addressed.
2. If WEE is a high priority, a value chain should be selected with scope for WEE when trade-offs are understood with regard to growth potential of a value chain and a market system that includes many women.
3. Interventions that contribute to WEE include those that target men and women, as well as those that specifically target women. The goal is equal opportunities in the market system.
4. Intervention planning should consider and predict the potential impact on WEE. Gender analysis makes this possible, but research does not stop once initial studies for the analysis of the market system are done.
5. Research and interventions gain from including and considering the voices and views from women and men from the private and public sectors, NGOs, civil society and the agricultural value chain. On-going dialogue and meetings with these stakeholders about WEE are important.

4. PERFORMANCE MONITORING PLAN AND THE ASSESSMENT OF 7 KEY INDICATORS

The PMP – Performance Monitoring Plans - for MARKET and BtM2 are the documents containing the description of the projects with objectives, goals, results framework- with indicators and were reviewed in the course of the evaluation. The PMP is a requirement of all USAID projects. The MARKETS PMP was adjusted as new funding sources and project objectives were added to MARKETS. The first revision was submitted to USAID in March 2006 and was undertaken to integrate common indicators into MARKETS routine monitoring activities. A second revision was necessary to formally integrate additional performance indicators from the PRISMS project into MARKETS PMP. The third revision of the PMP that had 33 indicators reflected three additional economic growth indicators –two on loan performance and the number of public-private partnerships (PPP) established from the Operational Plan of the new Foreign Assistance Framework. The PPP was introduced to be a key process indicator to assess the effectiveness and scope of MARKETS agribusiness partnership approach and of opportunities these partnerships represent to leverage non-project resources for program implementation. The PMPs included management tools such as how the M&E team feeds data into the communications activities of MARKETS which should reflect how well project management is able to respond to new activities and processes. The PMP was the primary tool for measuring how the adjustment in project activities contributed or detracted from anticipated results. BtM2 had a revised PMP with just 23 indicators that used the Feed the Future framework to reflect the overall program objective for sustainable food security and improving livelihoods in selected areas and tracking intervention impacts on youth. Seven indicators of what were considered to be of primary importance to the USAID/Nigerian Mission in the MARKETS/BtM2 final evaluation are presented below.

4.1 OVERVIEW

Seven key indicators of anticipated results to be achieved under MARKETS and Bridge to MARKETS activities were selected by USAID and the project implementer and referenced in the Final Evaluation SOW to measure increased agricultural productivity; expanded markets and trade; increased private sector investment in agriculture and nutrition-related activities; increased agriculture value chain productivity leading to greater on and off-farm jobs; increased resilience of vulnerable communities and households and improved access to diverse and quality foods. These activities broadly encompass the overall goals and objectives of the MARKETS pilot project with its aim to strengthen agricultural competitiveness and food security in Nigeria. Below are the cumulative life of project targets of key indicators that are compared against actual project achievements in this evaluation:

1. Number of clients networked* into the project:	1,200,000
2. Number of new jobs created:	160,000
3. Amount of revenue generated:	\$245 million
4. Amount of fertilizer sold by the private sector:	2.5 million tons
5. Financing leveraged for farmers and agro-processors:	\$57 million
6. Increased productivity of selected commodities:	100%
7. Volume of bulk commodities processed into value-added products:	30%

4.2 DEFINING THE 7 INDICATORS

The seven indicators as defined in the Performance Monitoring Plan are as follows:

1. Number of clients networked into MARKETS: Number of persons—small scale farmers, micro-entrepreneurs, traders, and others involved in the market chain, assisted directly by MARKETS or linked to MARKETS via a single degree of separation.
2. Volume of bulk commodities processed into value-added products: Change in volume of bulk (raw) commodities that are processed into value-added products by MARKETS clients. A value-added

product is one where the commodity has been transformed in such a way that consumers are willing to pay a higher price for the product.

3. Productivity of selected commodities: Change in production per unit of land or animal, depending on commodity.
4. Amount of gross revenue generated: Gross revenue of selected agricultural commodities, products, and services at the last point of the market chain, received by on- and off-farm enterprises assisted by MARKETS
5. Quantity of fertilizers sold by the private sector: Volume of fertilizers sold by the private sector.
6. New Permanent Jobs Created in Assisted Enterprises: This is a count of the full time jobs (in excess of 2 weeks) generated by USAID-assisted partners within the reporting period. This includes both paid jobs and self-employment in micro-enterprises. New is defined as the positive difference between current number of jobs and the number of jobs identified in the baseline. The total number of on-farm, off-farm and non-farm full time jobs in excess of 2 weeks created as a result of MARKETS assistance. Youth is defined as a person aged 18- 30 old.
7. Amount of financial credit leveraged for farmers and agro-processors: Aggregate value of loans received by MARKETS-assisted producer groups and enterprises. This indicator is to be disaggregated by micro (N100,000), small (N100,000 – N200,000), medium (N200,000 – N500,000) and big (N500,000).

4.3 FINDINGS OF THE ASSESSMENT

Were activities implemented as planned? This was answered by profiling the annual achievements of each indicator against the set targets as well as the targets set for the life of the project (LOP).

How effective was the MARKETS M&E system in tracking implementation progress? This was answered by examining the consistency in periodicity of reporting as well uniformity in disaggregated values reported.

Five out of the seven indicators were found to be relatively consistently tracked on a quarterly and annual basis. The performance of the 5 indicators against the set annual targets and for four indicators against LOP targets is shown in Table 4.3.1. Quantitative LOP targets were set for only four (4) indicators .

Table 4.3.1 Tracked Achievements of 5 indicators: Annual Targets Vs Actual (2006 -2010) and LOP Targets Vs Actual (2006 -2010)

Indicators	Cumulative Total (2006 - 2010)			2006 - 2010		% Achievement
	Target	Actual	% Achievements	LOP Target	LOP Actual	
Clients networked. (No.)	905,811.00	853,111	94%	1,200,000	853,111	71%
New jobs created (No.)	236,061.00	134,288	57%	160,000	134,288	84%
Gross revenue (\$m)	292.47	241	82%	245	241	98%
Amount of credit leveraged for clients	91.40	70	77%	57	70	123%

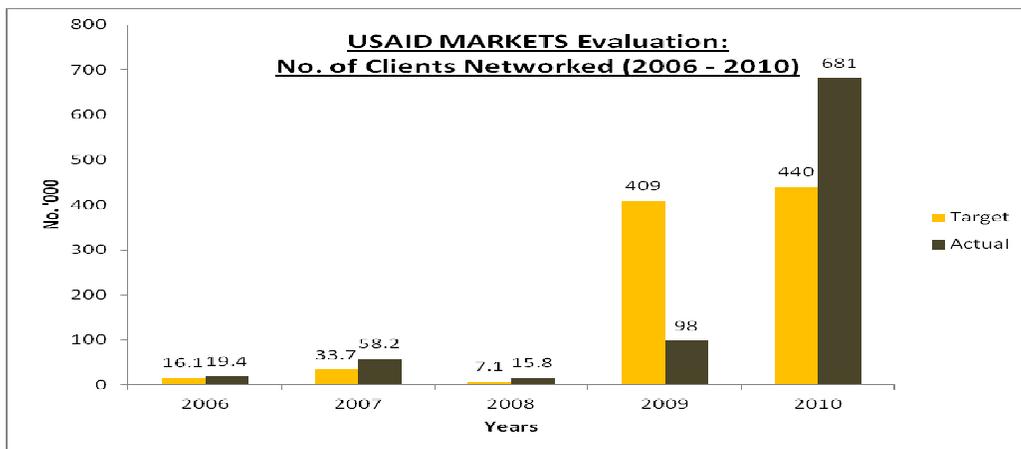
(\$m)						
Volume of value added commodities and products (MT)	147,398.00	194,970	132%	NA	NA	NA

Source: MARKET'S Performance Data Table; NA = Not available

As Table 4.3.1 shows, despite the variability in the annual and LOP targets achievements, average achievements ranged from 71% to 123% across all four (4) indicators that were consistently tracked. In the following sections, individual indicators were assessed on an annual basis.

- Table 4.3.2 Number of Clients Networked

As shown in Table 4.3.2, the 2006 – 2010 cumulative achievement on the number of clients networked was 71% of the LOP target however, there were wide variability on annualized targets and actual.



Source: MARKET'S Disaggregated Data

Volume of bulk commodities processed into value-added products

The planned and achieved results on volume of commodities processed were not broken down by value chains crops, rather it was global targets for all commodities combined. Individual commodities were tracked for achieved results but with no targets.

The volume of bulk commodities processed into value added products varied depending on the commodity. The total volume of bulk commodities processed amounted to 64,966 MT. As table 4.3.3 shows rice constituted 68% of the total.

- Productivity of selected commodities

The productivity of the selected value chain commodities was set to increase by 100% by end of LOP. Using baseline data, the productivity of rice increased by 279% while that of sorghum and sesame

increased by more than 100% between 2006 – 2010. Rice and maize exceeded the LOP target by more than 80% (Table 4.3.4)

Table 4.3.4 Productivity increase of selected commodities

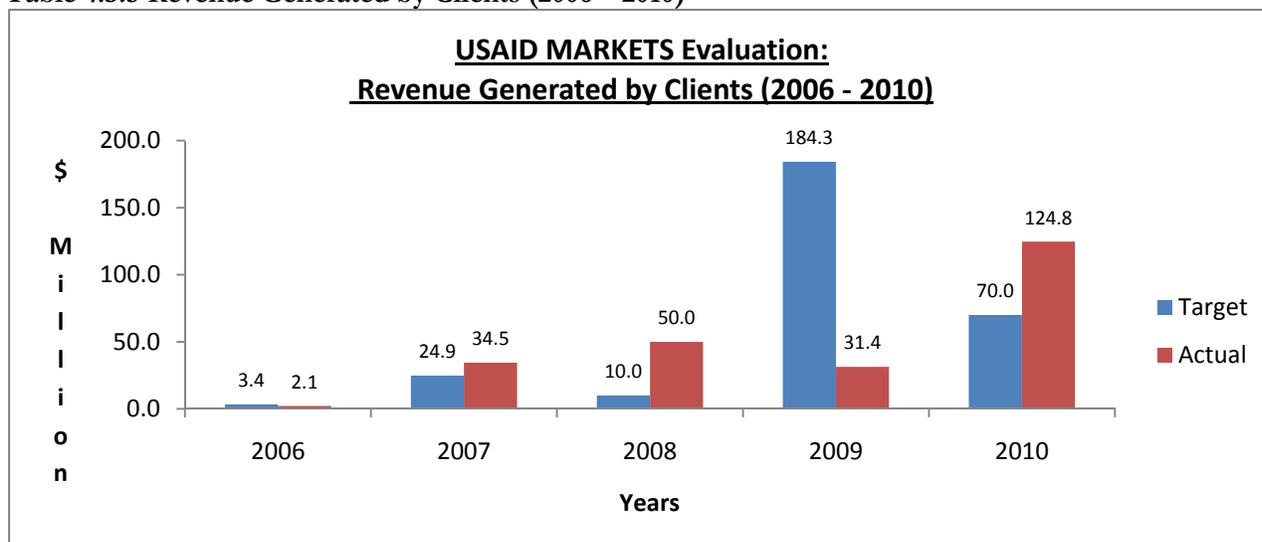
		PRODUCTIVITY (MT/HA)			
Commodity	Volume (MT)	% of Total			
Rice	44,206	68.04%			
Sorghum	16,375	25.20%			
Aquaculture (Fish)	4,171	6.42%			
Cassava	210	0.32%			
Maize	4	0.01%			
Total	64,966				
	BASELINE	LOP (100%) Targeted	ACHIEVED	% INCREASE Over Baseline	% INCREASE Over LOP
Rice	1.5	3	5.7	279%	89%
Sorghum	1.0	2.0	2.2	120%	10%
Maize	1.2	2.4	4.5	276%	88%
Sesame	0.4	0.8	0.9	130%	15%

Source: MARKET'S Disaggregated Data

- Amount of gross revenue generated

Amount of revenue generated by MARKET'S clients increased from \$2 million in 2006 to \$125 million. Annual targets were however inconsistent with the highest target set in 2009 in anticipation of more activities resulting from additional funding.

Table 4.3.5 Revenue Generated by Clients (2006 – 2010)



Source: MARKETS Performance Data Table

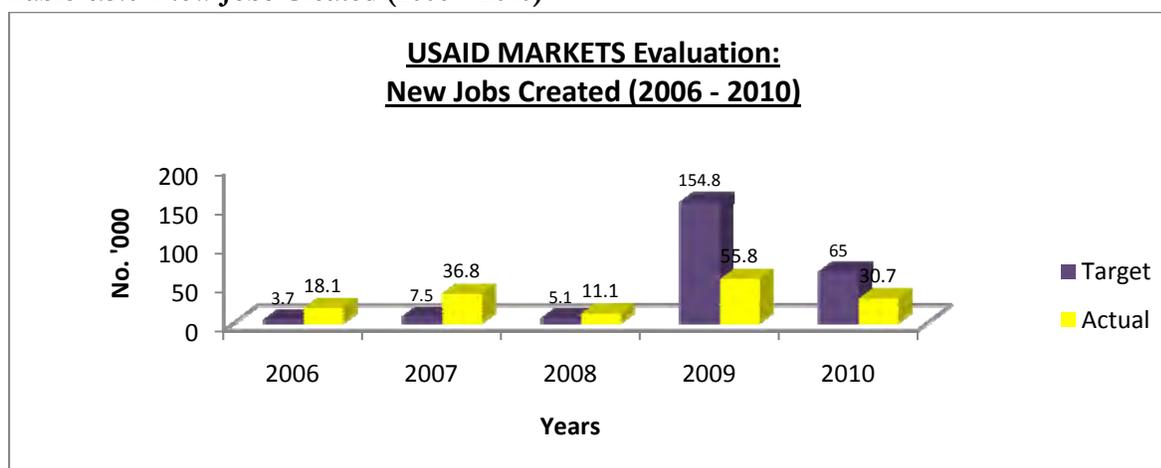
- Quantity of fertilizers sold by the private sector

The quantity of fertilizer sold by the private sector was never tracked by MARKETS until the beginning of 2009 when the fertilizer voucher program began through partnership with IFDC. By the end of the program in 2011 only 51,133 MT of fertilizer was sold through active private sector participation in the supply chain against the 2.5 million MT anticipated.

- New Permanent Jobs Created in Assisted Enterprises

MARKETS interventions targeted to create 160,000 jobs by the end of the project. Between 2006 – 2010, the number of jobs created amounted to 134,288 representing 84% of LOP target. The annual variations are shown in the Table 4.3.6.

Table 4.3.6 New Jobs Created (2006 – 2010)



- Amount of financial credit leveraged for farmers and agro-processors

The amount of financial credit leveraged for farmers was at LOP targeted cumulate to \$57 million. By the end of the project in 2010 the amount leveraged totaled \$70 million exceeding the target by \$13 million.

- General observations

Five out of the 7 indicators, including those captured on seasonal basis, were consistently tracked during the period assessed. These were number of clients networked; amount of revenue generated, amount of credit leveraged, productivity and volume of commodity processed. It was observed that the quarterly targets varied widely depending on anticipated funding. FY 2009 consistently had the highest targets set for the indicators. There were variations on the data sourced from performance data tables and disaggregated data for the following indicators: Productivity of selected commodities and the Volume of bulk commodities processed into value-added products:

- General Conclusions

There was no baseline values on most of the indicators to allow for objective assessments of the achievements recorded or consistency in tracking the indicators on a quarterly and annual basis, especially with regards to targets. Disaggregated data on some of the indicators, such as productivity and volume of commodity processed, did not add up to year-end-totals.

5. CONSTRAINTS AND CHALLENGES

The constraints and challenges encountered by MARKETS will remain with MARKETS II. This section raises constraints and challenges facing the core services and cross cutting issues as well as the global constraints and challenges of the larger environment within Nigeria.

- Agricultural Inputs

Constraints and challenges with inputs are disproportionately carried by the fertilizer sector, where despite efforts to liberalize the sector, making it more transparent and private sector driven, the prevailing environment is still dominantly influenced by past practices – delays, late delivery, difficulties redeeming vouchers, insufficient fertilizer quantities obtained through the FVP, etc. and farmers inability and/or reluctance to embrace market driven change. As far as seeds are concerned, apart from supply delays and some emerging seed quality concerns within the Da Allgreen facilitated Sorghum value chain, farmers are generally happy with the seeds and so are the industrial actors – processors, breweries. The long term sustainability of the zero tillage herbicide-driven innovative rice production technology is questionable, from both an environmental and productivity standpoint. What kills weeds will kill other useful soil micro-flora and fauna, destabilizing the natural soil renewal mechanisms, and thus soil fertility and productivity. What kills weeds could also be harmful to humans and other animals.

- Training and Extension

Training and extension worked relatively efficiently and to the satisfaction of its trainees with MARKETS as the facilitator of services and extension. The major challenge is finding a sustainable model for training and extension after-MARKETS. All indicators are that agricultural training and extension are best provided by a private sector partner or possibly a NGO that has deep community roots and commitment. Training and extension demands resources – time, labor, materials, and capital—which must be compensated in some manner. Alternative models of service provision and payment for services are discussed in conclusions and recommendations.

- Production

The major bottleneck confronted in production is the unenforceability of the Purchase Agreement/MOU signed between farmers, processors and banks. The banks use the MOU as a ‘guarantee’ to provide loans to farmers. With the breakdown of the MOU the farmers lose a ready guaranteed market and also any prospect of bank loans.

- Credit

The credit system according to small farmers is not working well and is the major constraint to their ability to grow. The delays in credit administration, limitations on volume of funds, lack of professional understanding to agricultural lending and cost of funds cannot be attributed to the MARKETS project, but to the banking institutions. Bank disbursements are slow or late and do not take into consideration the fact that agriculture is time bound.

- Processing/agro industries

Agro processors are the lynch pin in the MARKETS value chain model. They could also be the problem as is the case when they fail to honor contracts with farmers or change their production strategy. When this happens the whole value chain scheme collapses. As actual events under MARKETS have shown, it may not be possible to implement or enforce the Purchase Agreement/MOU signed between farmers, processors and banks.

- Food security and nutrition

The main challenge with nutrition and food security is the enormity of the problem, which seems larger than a single program can handle. Part of the solution could be broader partnerships to leverage achievements of biotechnology (and biofortification) currently practiced in Nigeria by the International Institute of Tropical Agriculture, Ibadan and Institute of Agricultural Research in Zaria.

- Policy (trade, transport and agricultural)

Policy reforms take a long time to develop and implement and, therefore, require patience and persistence for change to materialize. MARKETS' intervention for 18 months is rather short, even as a pilot. Private as well as public stakeholder capacities for policy review, analysis and collaborative implementation to promote growth and competitiveness in the Nigerian trade and transport sectors are still weak.

- Gender

Gender integration was not an explicit project goal when MARKETS was originally designed and MARKETS was, therefore, hindered by not having it as an integral part of the project design. The selection of value chains does impact the degree to which women are likely to be economically empowered in strengthening the value chain.

- Global issues

From a global perspective of MARKETS and project design, a major challenge in agro industrial development is the fact that the country is hardly competitive in agricultural value added production for most commodities. Cost of domestic production is relatively high compared to imports for the same commodities. This is as a result of infrastructure deficiencies such as electricity, transportation, high energy costs, and in the recent past insecurity. The basis for setting prices for locally produced commodities by agro processors is the international market price. Cheap imports may throw the whole value chain work of the MARKETS project into jeopardy.

Likewise the security issues in the North are ongoing and affect the degree of free movements of MARKETS staff, service providers, partners as well as farmers and processors. MARKETS II will be working in the north, as well as in the delta region, and security will be an ongoing issue and challenge.

Finally, the enormous amount of data from 31 states and 10 commodities that MARKETS had to collect and put into its M&E system was a major operational challenge. MARKETS II can learn from the problems, ongoing issues and solutions and incorporate them into the project design.

6. CONCLUSIONS AND RECOMMENDATIONS

- Agricultural Inputs

Seeds – Seeds are a vital input to farmers. A good crop starts with a good quality seed enhancing farmers' access to quality seeds is viewed as a vital MARKETS activity. The increases in crop yields where new seeds varieties were introduced are evidence of the impact of the seed interventions. Evaluation findings, suggest that seeds R&D activities met the goals of quality, yields and end-user standards for which the seeds activities were introduced in the value chain. FGDs with sorghum and rice farmers (20-40% were not satisfied) revealed some problems regarding the timeliness and quality of seeds. In the future, seed quality should be more closely monitored to ensure that quality standards are maintained and that there are guidelines to prevent a potential conflict of interest of private seed providers which may have various competing interests within a commodity value chain (e.g., Da All Green and the sorghum value chain). Because timely delivery of inputs is also tied to farmers' access to credit, enhancing farmers' access to loans is likely to also address the issue of input supply delays. **Fertilizer** - The Fertilizer voucher program (FVP) is overall a good initiative within an environment still very much influenced by past practices. The successes achieved by the pilot have created an environment in which the public and private sector could work together more efficiently to overcome emerging and persistent challenges. The FMARD's adoption of the FVP for implementation in select states in 2012 under the new e-voucher scheme can only go to corroborate and put into action this new public-private platform enabled by the pilot.

The Evaluation Team echoes the IFDC's conclusion that the states' commitment to improving their fertilizer procurement and distribution system is vital for success; and recommends that those states willing to improve their procurement and distribution systems be brought onboard during the next phase of the FVP, first to trigger the type of momentum that would eventually attract the states that are still not so committed to change. There is also need to continue to educate and sensitize farmers and private sector agro-dealers about the advantages of free and transparent fertilizer markets, as opposed to unsustainable and fraudulent state run subsidies. Another area that could make a positive difference in the fertilizer sector is the development of fertilizers that match different soil and crop needs, based on the existing nationwide soil studies. USAID MARKETS could leverage its fertilizer experiences and partnerships to collaborate with the GON and other donors to facilitate a private sector pilot of fertilizer compositions that match specific soil and crop needs.

Agro-chemicals - Agro-chemicals are generally used on as needed basis, and in much smaller low cost quantities than fertilizers. Agro-chemicals that have entered in MARKETS value chains are pesticides and herbicides. MARKETS promotion of herbicide use came from a felt need - farmers were increasing crop acreage, but had no appropriate farm implements to meet the growing labor needs. As a result, more attention needs to be paid to the growing use of herbicides through the zero tillage technique. The sustainability of this practice is questionable. What kills weeds will kill other useful soil micro-flora and fauna, destabilizing the natural soil renewal mechanisms. It could also be harmful to humans. There was no clear answer to the question about who controls these types of products – Standards Organization of Nigeria (SON) or some other GON department? These questions need answers. The Evaluation Team would recommend that USAID MARKETS II consider taking this up further with the GON, other experts and through the training of trainers and farmers.

Agricultural Machinery - Agricultural machinery was not a specifically planned intervention within the MARKETS program. Almost all the FGDs and KIIs conducted across all states visited by the Evaluation Team had on their list of new needs emerging as a result of MARKETS some type of agricultural machinery. Increasing mechanization support going forward would no doubt be a welcome and needed innovation, particularly for the younger generation of farmers who are more technologically informed than their now old and soon to be retiring farming parents. MARKETS could consider supporting S-G 2000 by linking them to potential partners that could facilitate commercialization and scale up of the prototypes in response to the emerging need for mechanization among MARKETS's beneficiaries. Facilitating linkages to credit services

would be an integral part of making mechanization work for Nigerian small farmers. The GON tractor mortgage scheme that facilitated Kwara farmers' adoption of tractors is a case in point.

Training and Extension - MARKETS's major project impact came from productivity increases and those increases were a result of the underlying skills and knowledge that were transferred through on-farm training and demonstrations (and the knowledge of a guaranteed market of those growers connected to an agro processor). MARKETS training and extension reached over 305,000 farmers and agriculture stakeholders which was 96% of LOP target. Satisfaction with training and demonstration was the highest among all MARKETS activities (source: evaluation focus groups, KIIs).

The training of trainer step down method can be a sustainable cost effective means for reaching large populations, as proven by increases in savings and improved diets of women who participated in MARKETS livelihood and nutrition curriculum and Microenterprise Fundamentals™ under the PEPFAR funding. When this method was used on these activities, MARKETS trained and supported community based organizations, rather than public sector employees in the delivery of the training. This model should be continued and refined in order to build capacity of local service providers who have proven to be committed to social and economic transformation. The selection of highly motivated partners to train and certify other trainers, especially those at the highest levels, is essential and a feedback mechanism should be in place to correct or replace underperforming service providers. Under the World Bank FADAMA program MARKETS had little input into the selection of trainers because the project was requested to train currently engaged ADP extension agents who are often lacking basic resources and incentives that are called for. The result was that MARKETS fell far below its target and trained only 33,195 agriculture and enterprise trainers not the 200,000 goal it had set.

The MARKETS M&E system was never designed to capture changes in attitudes and behaviors from MARKETS training and extension. Although recommended by the MARKETS 2010 Assessment, there is still no quasi-experimental design to rigorously isolate results—e.g., behaviors to income generation-- that might have occurred without project intervention. The approach to measure indirect impacts (e.g., copy cat factor) from the training and demonstrations also remains arbitrary, and is not systematic. The need to systematically isolate and measure changes in behaviors, attitudes, and family incomes will be even more critical as MARKETS II focuses more on training and extension that will benefit women and youth. There is now a growing body of knowledge on measuring changes in women's and youth's behaviors and decision making that can and should be adopted by MARKETS II in assessing changes in the behaviors, attitudes, family roles and income. MARKETS II staff should be provided adequate training and resources to carry out the new M&E training related activities.

Virtually all trainees interviewed in this evaluation expressed a desire for more training and extension support from MARKETS especially with regards to farming as a family business/micro entrepreneurship, decision making and leadership skills. The technical and field day trainings in production and cultivation will continue to need follow up and reinforcement from MARKETS II to ensure sustainability.

Production - The MARKETS production component substantially removed the identified binding constraints to farmer productivity and yield improvements. Twenty eight (28) improved technologies were made available based on the needs of each particular value chain to which there was 100% adoption of each technology by the farmers in each value chain. More hectares can be brought under improved management methods through mechanization. Recommendations for increased mechanization are discussed previously under agricultural inputs. The farmers also reported positive changes of attitudes and knowledge especially with regards to formal business and contract system. The evaluation team also observed great potential of upgrading the business and management capacities of the farmers through 'hands-on' approaches including mentoring and coaching of best practices.

Collaboration at the production level involved the development and transfer of production technologies from project partners like IITA, IAR, through facilitators and service providers. Farmer needs were jointly identified by the farmers with all stakeholders and interventions appropriately designed and delivered in the same manner. This proved very effective in promoting understanding, adoption and internalization of the new technologies by the recipients.

MARKETS should consider reviewing the entire marketing arrangement particularly the implementation and enforceability of the Purchase Agreement/MOU between farmers, processors and the banks. The project should also consider assisting to diversify market outlets for the farmers to increase competition at the marketing end of each value chain. On sustainability, stakeholders, including financial and public institutions and governments, should be included in relevant training and capacity building programs so as to bring them in and increase their commitment to what has been achieved so far.

Credit - Very few farmers had limited access to formal credit. Farmers also lack knowledge and understanding of the banks' credit requirements, such as business plans and loan preparation procedures. Banks on the other hand prefer to provide loans to construction, real estate and commerce sectors.

MARKETS engaged in successful/sustainable and in unsuccessful/unsustainable ventures with processors, outgrowers and banks that can help better plan the credit component in MARKETS II. These mixed experiences and lessons from the pilot project provide a basis for the project to target its credit activities and optimize the size of its out grower schemes within manageable limits to improve loan administration. Adjustments in the light of these lessons will likely improve the long term outcomes of the project. It is also important at the program level to put greater focus on linkages to loans for agricultural activities.

To effectively support a more robust agricultural credit portfolio delivery mechanism, more training is required in the key areas of value chain transaction dynamics (commodities, loan tenor), risk management and loan monitoring. Future MARKETS projects should strive to consciously build the capacity of commercial bank staff on agricultural lending. The MARKETS project has shown that by linking farmers to guaranteed markets, farmers have proven in some instances that they can pay loans, and in some cases before they are due. However, the packaging of the loan is important with respect to the necessary due diligence of a potential borrower and, if necessary, collateral requirements, to reduce risk. Increasing the number of out grower farmers to unmanageable proportions increases the risk of high default even with a guaranteed market. This evaluation also found instances of a lack of follow up with some farmer groups and the bans from MARKETS staff which led to instances where groups were unable to claim interest draw backs. An obvious remedy is for the MARKETS II field staff to schedule visits for follow up and monitoring.

Processing/agro industries - Small and large scale agro processors are the lynch pin of MARKETS value chain development activities. They provide the market for products produced by MARKETS trained and supported farmers and groups.

In all cases, the agro processors saw their collaboration with the MARKETS project as positive. The agro processors benefitted from increased output and increased capacity utilization in their plants, expanded employment and increased income and profits. However, the evaluators believe that the use of inputs as "in-kind" loan to farmers in the out grower scheme will not be sustainable with a large number of farmers and a high rate of repayment defaults. This presupposes that a high degree of trust is required from both parties for a deeper business relationship to grow. To ensure consistent supply of raw materials, farmers and agro processors have to understand that the relationship is mutual as one cannot do without the other. Future MARKETS programs should strive to encourage stronger relations between the farmers and the out growers. This may help to improve contract relations, the honoring of contracts and reduce side selling to alternative markets.

New out grower schemes should scale up gradually as ramping up too quickly poses logistic challenges at the farmer and processor level. Agro processors should from the onset begin to consider the *optimum size* of their out grower scheme (both in terms of number and size of farms) in combination with their own estate farms. Further, the issues of side selling on the part of farmers and the non- commitment to contracts by agro processors remains an issue in farm agribusiness contracting and corporate social responsibility. This is one area that the project could have provided some innovative assistance using policy advocacy and/or the deepening the relationship between farmers and agro processors.

In order to strengthen the agricultural value chains and the sustainability of guaranteed markets from agro processors there is need to address intensification of training and expansion to new farmer groups and development of mechanisms that will provide access to agricultural machinery including tractors, planters, harvesters, winnowers and threshers in order to increase efficiency at the farm level. *Increased efficiency at the farm level ensures consistent supply of raw material for the agro processors.*

Food security and nutrition - Nigeria is one of the countries with a growing problem of chronic malnutrition, particularly in the Northern States. The Family Nutritional Support Program (FNSP) was never fully integrated into the value chain activities and ended up as a standalone component of MARKETS, continuing with the PEPFAR activities in collaboration with PEPFAR implementing agencies and partners. However, the outcomes of the activities do indicate that an integrated approach to livelihoods and nutrition can improve behavior change in food insecure households, and positively affect food availability, access and utilization. The willingness of caregivers to purchase nutritional supplements is an indication that the manufacture of nutritional supplements could offer a potential for sustainable food security-focused enterprise development. Despite successes of the FNSP, the Evaluation Team's opinion is that nutritional supplements, micro-enterprise training and small homestead gardens, are just a part of the solution to Nigeria's major food security challenges, particularly the micro-nutrient issues facing the country's under 5 year olds.

It is recommended that FNSP be an integral component of the MARKETS II value chain activity starting with an assessment of dietary and food production patterns to identify nutritional gaps that can be filled through production and product diversification. Next, include commodities that would promote balanced diets in the training program. Include nutrition training as a component of MARKETS in partnership with GON's National Program for Food Security (NPFS) Department. Finally MARKETS II could partner with/support the Institute of Agriculture Research's (IAR) biofortification efforts by promoting the uptake of IAR's protein fortified maize variety across the maize commodity chain, as well as supporting IAR to carryout similar scientific trials on other cereal commodities in the MARKETS AVC. Similar collaborative efforts could be explored with HarvestPlus at IITA, given their experience in breeding nutrient-dense staple food crops to reduce 'hidden hunger' in developing countries.

Policy (transport, trade and agriculture) - Upon receipt of the Global Food Security Response funds in December, 2008, MARKETS immediately expanded its activities to include among others, the policy activities. MARKETS and its subcontractors launched additional interventions towards reform in trade, transport and agricultural policy. The interventions and processes were openly participatory and designed to be home grown and attract buy-in relevant Nigerian and international stakeholders. Activities focused on studies and reporting for related briefs and papers and the usual M&E indicators were not applied. Persistence of effort and additional leverage are needed for the policy reforms to proceed.

To counter the issues of imports, tariff rates and concessions the MARKETS program in the next phase may wish to facilitate additional public private sector dialogues. This can be achieved through the formation of apex bodies such as a rice alliance, cassava agro processor alliance and/or the strengthening and encouragement of some institutions (say in aquaculture sector) for the specific commodity chains. Such alliances/associations can form pressure groups that can dialogue with relevant governmental ministries on specific trade and agro industry issues.

USAID/MARKETS II is encouraged to provide additional leverage and resources to gain traction on what was achieved under MARKETS, and to support policy reform necessary for demonstrative impacts and sustainability. More sector studies, reviews and analyses, as well as stakeholder capacity in evidence generation for policy, are needed. The support/intervention should persist to the point of full buy-in by stakeholders so that a culture of reform is fully entrenched.

The new structures and platforms for public-private partnerships resulting from the trade and transport sub-component have created new challenges that need new capacities. Accordingly, given the long term nature of the policy reform process, the intervention should be for longer than 18 months to create the demonstrative effect and needed higher level buy-in. It is also clear that technical and evidence-based information are critical and must be complimented by private sector capacity for advocacy in dealing with government. Government capacity to absorb assistance and define needs must also be strengthened.

The agricultural policy activities undertaken by MARKETS-IFPRI concentrated on the macroeconomic policies. Some policy research on specific issues like fertilizer regulation and voucher program, mapping private sector irrigation systems and technologies, etc. were undertaken, but these studies were too academic and only meant to inform. They failed to address the micro economic policy issues that affected the MARKETS value chain development program. The policy program failed to use the process of policy dialogue to facilitate regulatory and legislative change. For instance, none of the agricultural policy activities addressed the microeconomic issues about how to entrench an effective farm agribusiness contracting system in a way that is implementable or actionable. There are several other identifiable value chain development issues such as multiple taxation and energy challenge to which the agriculture policy component could have lent a voice.

Earlier assessments (see Lessons Learned from the MARKETS Program June 2011) had noted that to date, not a single recommendation from the actionable research by IFPRI has been implemented and that additional efforts should have been made to include relevant project programs into the research. As rightfully recommended by this 2011 document, policy research should focus on concrete steps needed to move the sector forward.

Gender - Although gender was not a focal point until September 2008 with the Family Nutritional Support Program launch, the impacts of an appropriate course to improve income, productivity and nutrition gave impressive results. The impact assessment showed a high degree of economic impact upon women from the training modules. Most notably 98% of the sample surveyed said that business income had increased and 95% were saving more as a result of the MARKETS trainings. Behavioral changes also resulted with women starting or increasing household savings and beginnings of increased decision making of household assets.

Suggestions emerging from the discussions on ways to encourage women's involvement in MARKETS going forward included is to increase the hire of female Extension Agents (EA). It is important to integrate gender and specifically Women's Economic Empowerment (WEE) into the project cycle from the very start. Gender should be integrated into the M&E and impact assessment system from the start as well. A thorough gender baseline study is, therefore, requisite. WEE should, therefore, be included in the strategic framework and PMP for a project. This should make explicit what the WEE objectives are within the broader context of how gender specific constraints will be addressed. If WEE is a high priority, a value chain should be selected with scope for WEE when trade-offs are understood with regard to growth potential of a value chain and a market system that includes many women. Interventions that contribute to WEE include those that target men and women, as well as those that specifically target women. The goal is equal opportunities in the market system. Intervention planning should consider and predict the potential impact on WEE. Gender analysis makes this possible, but research does not stop once initial studies for the analysis of the market system are done. Research and interventions gain from including and considering the voices and views from women and men

from the private and public sectors, NGOs, civil society and the agricultural value chain. On-going dialogue and meetings with these stakeholders about WEE are important.

Global issues - The value chain approach has had a positive impact at the farm level. It has proved to be the quickest approach to the provision of improved seeds and agronomic practices at the farm level. As guaranteed raw material off takers (agro processors), it has also been effective in linking farmers to formal credit and to guaranteed markets. However, mechanization is a fundamental missing link. MARKETS has helped to increase yields across all the commodities. But to sustain increased yields necessitate the use of machines. Mechanization can lower production costs, improve efficiency in land preparation and planting and reduces harvest time.

The quality of the MARKETS PMP was overall good. The main issue was that the indicators were too many, the targets over the years were sometimes at variance with the LOP targets and some of the indicators especially on agricultural policy were not within the manageable interest of the project. The inconsistencies and accuracy of performance data tracking had to do with the Monitoring and Evaluation system which focused on centralize data collection and collation. Going forward there is a need to establish a robust decentralized M&E system with adequate infrastructure that would allow performance data to be captured at sites where activities are implemented on regular basis. Performance tracking should be based on a fewer number of the most critical indicators. Continuous capacity building for the M&E staff specifically with regard to income generation and changes in women's and youth roles and economic empowerment is highly recommended. M&E system's ability to track value chain performance was weakened as a result of the additional and changing data collection and analysis requirements.

ANNEXES

ANNEX I. EVALUATION SCOPE OF WORK

MARKETS EVALUATION SOW

Project Identification Data

Activity Name:	Maximizing Agricultural Revenue and Key Enterprises in Targeted Sites (MARKETS) & BtM2
Instrument:	Contract
Award numbers:	620-C-00-00077-00 [MARKETS] 620-C-00-11-00004-00 [Bridge to MARKETS II]
Implementing Partner	Chemonics International Inc
Award Date:	June 23, 2005
Activity Completion Date:	April 27, 2012
LOP Funding:	\$61,273,193.6 [MARKETS 51,699,412; Bridge: 9,573, 781.6]
COR:	Abdulkadir Gudugi

Evaluation Purpose and Use:

The purpose of the MARKETS evaluation is to provide USAID/Nigeria, Government of Nigeria (GON), implementing partners and other stakeholders with an independent evaluation of MARKETS project with a view:

- To determine whether the goal and objectives of the MARKETS were met;
- to establish how effectively MARKETS interventions were delivered;
- to assess project outcomes and the extent to which the project affected its beneficiaries;
- to determine whether the USG investment in the program received the greatest possible return; and
- to learn lessons that will guide the implementation of the follow-on project (MARKETS II).

Background:

Problem

There are an estimated 80 million poor people in the country. Nigeria has 79 million hectares of fertile land but only 50% are under cultivation. Over 90% of agricultural output comes from farms of less than five hectares. These mostly subsistence smallholdings may produce yearly only enough food to last for 7-8 months. The poor performance of the agricultural sector in Nigeria is linked to inconsistent policies and the use of low-input, low-output technologies. Post-harvest losses are high, appropriate processing and value adding technologies are not available, a commercial orientation is lacking and market information and linkages are weak.

Approach:

MARKETS project expanded economic opportunities for beneficiaries in the Nigerian agricultural sector by increasing agricultural productivity, enhancing value-added processing, and increasing commercialization through private-sector led growth and development in support of USAID/Nigeria Economic Growth program area. MARKETS worked along the commodity development chain from primary producer to processor to end-users, and reached significant numbers of agricultural households and rural enterprises. MARKETS' commodity chain, business development approach identifies targeted commodity value chains that can benefit from technological packages, increased value addition through storage and processing, and significant commercialization, supported by appropriate policy reforms. The activity's subcontractors under the Global Food Security Response program are undertaking work in trade and transportation reform, food policy, seed system development, and fertilizer distribution network.

Following the MARKETS, was a Bridge to MARKETS II (BtM2) project designed to maintain services to beneficiaries and ensure continuity of key results aimed at expanding economic opportunities in the

Agriculture Sector. The projects were implemented in 23 states with 8 commodities. The bridge project closes April 27, 2012.

Anticipated Results

Under the two activities, anticipated results include: increased agricultural productivity; expanded markets and trade; increased private sector investment in agriculture and nutrition-related activities; increased agriculture value chain productivity leading to greater on and off-farm jobs; increased resilience of vulnerable communities and households and improved access to diverse and quality foods. Under listed are cumulative life of project targets of key indicators:

1. Number of clients networked* into the project:	1,200,000	
2. Number of new jobs created:		160,000
3. Amount of revenue generated:		\$245 million
4. Amount of fertilizer sold by the private sector:		2.5 million tons
5. Financing leveraged for farmers and agro-processors:		\$57 million
6. Increased productivity of selected commodities:		100%
7. Volume of bulk commodities processed into value-added products:		30%

*Please note that term “networked” refers to clients (small-scale farmers, micro-entrepreneurs, traders and others involved in the commodity chain in the selected/target states) assisted by the project either directly or linked to the project by a single degree of separation. For example “networked” clients include those trained directly or by a recipient of direct training.

An independent assessment of MARKETS in 2010 examined the extent to which the project is making meaningful progress in improving livelihoods and food security as well as its impact on economic growth in Nigeria. The assessment showed key achievements including increased incomes of farmers participating in the value chain; creation of sustainable agro industries; transfer of technology; increased commercialization of farming; organization of women farmer groups among others. Vulnerabilities include the heavy dependence on agro processors in the commodity value chain which by implication means that a withdrawal of support to small farmers by this group will be detrimental. Other vulnerabilities include the access to credit and intervention by Government in the agricultural input supply chain.

Evaluation Questions:

This evaluation will answer questions related to MARKETS and Bridge to Markets implementation; project outcome and key lessons learned.

Questions on design and implementation/outputs:

- Were activities implemented as planned?

To what extent did MARKETS project meet the needs that led to this project? Do those needs still exist and are there other related needs that have arisen that the project did not address?

1. What features of the project design / approach proved to be instrumental in achieving project’s results?
2. How satisfied were the beneficiaries with their involvement in MARKETS?
3. To what extent did adjustment in project activities contribute to producing greater results?
4. How effective was MARKETS work with collaborating organization/institutions towards project implementation and project outcomes?
5. How effective was the MARKETS M&E system in tracking implementation progress, evaluating value chain performance, and measuring project outcomes

Evaluation questions related to outcomes:

- To what extent did the beneficiaries (farmers, agro dealers, commodity groups) experience expected changes in their skills, knowledge, attitudes, behaviors, yields, income, etc.?

To what extent did the project impact the intended population and the targeted number of beneficiaries?

- As a pilot, how likely is it that the long-term outcomes of the project will be achieved?

Evaluation Design and Methodology:

This evaluation team will use a mixture of quantitative and qualitative approaches to gain insight into the impact of MARKETS and BtM2 activities and the processes that led to those impacts. A variety of methods and approaches will be used to collect and analyze information relevant to the evaluation objectives and questions outlined in the Scope of Work. A team of four experienced evaluators including two international and two local consultants will work together to conduct the evaluation using various methods including

documents content analysis, Key Informant Interviews, Focus Group Discussions, and field/on-site observations. A purposive sampling of beneficiaries and key stakeholders will be used to draw the sample of key informant and focus group participants. This is

because it is a deliberative and non-random fashion that will assist in selecting the target beneficiaries based on wide spectrum activities that MARKETS/BtM2 covered. The evaluation questions that are expected to capture outcomes will be answered through a review of quantitative data that were reported in the projects' periodic reports. Questions related to the design and implementation of the projects is expected to be answered through the review of projects documents, FGD and KII with key stakeholders and field visits/observations. Since multiple data sources will be utilized in the evaluation, it is expected that triangulation will be used to synthesize the findings.

The findings are expected to reflect, as appropriate, aggregation by activities, gender and location focusing on the following outcome/impact indicators:

- a) Impact on income
- b) Impact on physical and financial assets
- c) Overarching factors: sustainability; innovation and replicability/scaling up

Evaluation is by nature a complex endeavor because it attempts to measure impacts on individuals and questions whether the impacts are significant enough to yield large social change and determined whether the outcomes achieved are worth the money spent. These complexities pose some limitations on the methodologies suggested because they are to rely on non-experimental data using before-after estimators (BAE)

Please note that the list above and the methodology matrix below are suggestive and are not exhaustive. The evaluation team will be required to review the objectives and key questions and fine tune methodology before commencement of the evaluation.

Table 1: Suggested methodology matrix

Evaluation Question	Method of Data Collection and Source	Sampling or Selection Approach	Data Analysis Method (s)
Were activities implemented as planned?	Review of Project reports		Qualitative Content analysis of project reports
How satisfied were the beneficiaries with their involvement in MARKETS?	Projects periodic reports Focus Group Discussion, KII	Purposive sampling of beneficiaries and key stakeholders	Qualitative and Quantitative data analysis
What was the extent of projects' results modification during the implementation period?	Project reports		Qualitative Quantitative data analysis using descriptive statistics
How effective was MARKETS work with collaborating organization/institutions towards project implementation and	Focus Group Discussion, KII, Previous assessment report	Purposive sampling of beneficiaries and key stakeholders	Qualitative Quantitative data analysis Triangulation

Evaluation Question	Method of Data Collection and Source	Sampling or Selection Approach	Data Analysis Method (s)
project outcomes?			
How effective and useful in decision-making was the MARKETS M&E system in tracking implementation, progress, evaluating value chain performance, and identifying outcomes of the initiatives.	Project Team Self reviews, Documents review, review of project M&E system		Quantitative and Qualitative data analysis
To what extent did the beneficiaries experience expected changes in their skills, knowledge, attitudes, behaviors, yield, income, etc.?	Review of Projects periodic reports; including project M&E data	Purposive sampling of beneficiaries ;	Quantitative analysis using descriptive statistics
To what extent did MARKETS project meet the needs that led to this project? Do those needs still exist and are there other related needs that have arisen that the project did not address?	FGD KII with Government stakeholders and project beneficiaries	Purposive sampling of Government stakeholders and beneficiaries	Qualitative data analysis
As a pilot, what are the likely long-term outcomes of the project?	Projects periodic reports	Purposive sampling of beneficiaries and key stakeholders	Qualitative Quantitative data analysis Triangulation

The key support activities for the evaluation are outlined below;

1. Background Materials Review: Documents relevant to the Nigeria MARKETS Project have been identified and assembled for the evaluation team's review and analysis. These include MARKETS project annual reports since program inception; MARKETS and BtM2 Performance Management Plans; Projects Work Plan; Lessons Learned reports; 2010 independent assessment of the MARKETS projects; National Bureau of Statistics Poverty and Agriculture Report; World Bank Doing Business report; USAID/Nigeria 2010 – 2013 Strategic Plan and Agency's Evaluation Policy and other documents related to the project.
2. Team Planning Meeting: The team will conduct a 4-day team planning meeting (TPM) before starting the field site visits portion of the evaluation. The TPM will review and clarify any questions on the evaluation SOW, agree on team member roles and responsibilities, clarify USAID's expectations of the evaluation and evaluation team, decide on the details of methodology, draft an initial work plan, develop a data collection plan, develop data collection instruments /interview guides, discuss

recruitment of data collectors and supervisors, seek clarification on the evaluation questions, develop the draft evaluation report outline, assign drafting responsibilities for the Evaluation report and finalize logistical and administrative arrangements. NMEMS II will actively participate in all TPMs. The product of the TPM will be a detailed evaluation work plan, which will be submitted to USAID/Nigeria for review and approval. USAID/Nigeria staff may participate selectively in some TPM sessions.

3. Field Visits: The evaluation team will conduct field visits to the beneficiary states for data collection and interviews. Please note that because of the significant security threats in-country, some members of the evaluation team may not be able to travel to parts of the country. Alternative methods to gather information that would otherwise have been gathered in the field will be devised during the team planning meeting. Limitations to this evaluation will be well documented.
4. Interviews: Conduct interviews and focus group discussions with key beneficiaries, stakeholders, informants from other selected USAID projects, the Federal Ministry of Agriculture and Rural Development and participating States' Ministries of Agriculture, community organizations (including women's groups) and other relevant stakeholders identified in project documentation.
5. Data Analysis. The team will share and analyze data collected from all sources; identify and address any gaps in data or information; discuss findings and reach agreement on findings, conclusions and recommendations
6. Debrief: Review data collected, analyze and prepare a presentation and debrief for USAID/Nigeria.
7. Draft Report. A draft report, taking into consideration comments by USAID, will be prepared and submitted to USAID/Nigeria before the team departs from Abuja.
8. Final Report: The team will finalize the draft report based on written comments from USAID/Nigeria. The Executive Summary will include main findings, conclusions and recommendations for program

TEAM COMPOSITION

The evaluation team will comprise two international consultants, two local evaluation experts and two data collectors. The team is expected to divide the evaluation tasks in order to maximize the available time and to ensure that all aspects of the project (implementation questions, outcomes and lesson learned) are covered in the evaluation. The evaluators will design a comprehensive methodology. Team members will have technical expertise in some or all of the following areas: program monitoring and evaluation, agriculture, rural development, food security, nutrition and health, rural savings and income generating schemes, and/or natural resource management. NMEMS II support to the team will include:

- a) Assistance in identifying and hiring of two local evaluation experts
- b) Assistance in identifying and hiring of 2 data collectors.

The Team Leader will have the overall responsibility for the administration of the evaluation. He may designate aspects of this responsibility to his deputy and they will be responsible for the following:

Technical:

- a) Training the local consultants and data collectors
- b) Designing and developing all data collection instruments and guides
- c) Training data collectors in household and respondent selection and face-to-face interviewing techniques.
- d) Pretesting data collection instruments, guides and informing the sampled populations of the study.
- e) Supervising field administration of all data collection instruments and guides
- f) Supervising data entry processes.

Preparations:

The team leads will:

- a) Finalize and negotiate the team work plan with USAID EGE Team.
- b) Establish roles, responsibilities, and tasks for each team member.

Management:

- a) Facilitate preparations and agenda for the TPM.
- b) Take the lead on preparing, coordinating team member inputs (submitting, revising and finalizing their assignment report).
- c) Manage report writing process.
- d) Manage team field coordination meetings.
- e) Coordinate all workflow and tasks to ensure the team is working on schedule.

Communications:

- a) Manage team conflicts.
- b) Serve as primary interface with USAID/Nigeria and spokesperson for the team.
- c) Keep USAID EGE Team and NMEMS II management apprised of challenges to progress, work changes, team travel plans in the field, and report preparation via phone conversation or email at least once a week.
- d) Serve as primary interface with NMEMS II for the submission of draft and final reports/deliverables.
- e) Make decisions about the safety and security of the team, in consultation with USAID/Nigeria and NMEMS II.

Qualifications of Team Leader and his deputy:

Both of these consultants should have a

- A minimum of 10 years' experience designing and conducting program evaluations of complex, donor-funded, assistance programs. Should have served as team leader on previous program or project evaluations.
- Extensive experience designing, implementing, and assessing project monitoring systems
- Sectoral expertise in the areas of rural agricultural development, food security, grants management/capacity building, and commodity management
- Demonstrated ability to lead a team of international and/or local consultants
- Post graduate degree in Agriculture, Statistics, Economics, Rural Development or related field
- Strong critical analysis, and English report-writing and presentation skills
- Excellent oral and written communication and presentation skills in English

Qualification of Local Evaluation Experts: These consultants should have:

- a) At least 5 years' experience working with and evaluating similar development programs in Nigeria. Specific experience in evaluating or working with USAID projects is an asset.
- b) Excellent verbal and written communication in English
- c) Post graduate qualification in Agriculture, Economic or Agricultural Economics
- d) Strong critical analysis and report-writing skills
- e) Excellent understanding of Agriculture and Rural Development in Nigeria

The level of effort (LOE) for the international consultant, the local consultants and enumerators is indicated in Table 2

Table 2: Level of Effort (LOE) (Work days)

Tasks	2 ⁴ International Consultants	(2) Local Consultants ⁵	Data Collectors and entry clerks
Travel Time for International Consultant Team Leader	2		
Complete preparations and review background documents (to be provided by USAID/MARKETS)	3	3	
Hold team planning meetings; develop evaluation work plan and timeline; develop data collection instruments and list of people to be interviewed, data analysis methods, report outline; and finalize logistical/administrative arrangements	4	4	
Conduct field visit for data collection and interviews (TL, LC and 5 data collectors)	15	15	15
Review data collected, analyze and prepare a presentation and debrief for USAID/Nigeria and the Federal Ministry of Agriculture Rural Development (FMARD).	5	5	1
Finalize report	3		
Total	32	27	16

The schedule for the evaluation will involve three categories of tasks as outlined in Table 3

Table 3: Tentative Evaluation Schedule

Task	Schedule
Pre-field Travel Tasks	
Review project documents and reports	April
Design evaluation framework	May
Develop data collection tools	May
Identify sample to be interviewed	May
Develop a schedule for data collection	May
Field Tasks:	
Review additional project documents and reports; meetings in Abuja	May
Visit field sites and interview beneficiaries and other key stakeholders	May
Review data collected and draft report	June
Send out first draft of report	June
Presentation/debrief to USAID/NMEMS	June
Presentation/debrief to Other key stakeholder	June
Post-field Travel Tasks	

⁴ One of the two International Consultants should assign as Team leader and the LOE equally split between the two.

⁵ The LOE equally split between the two local consultants

Review report and address comments	July
Finalize report and submit	July

Evaluation Management:

NMEMS II will provide technical and administrative support, including identifying and fielding appropriate consultant in consultation with USAID/Nigeria. In addition, NMEMS II will provide all logistical arrangements such as flight reservations to/from Nigeria, country clearances from USAID/Nigeria, in-country travel, airport pick-up/drops, lodging and interpreters

The Evaluation Team will work under the technical direction of USAID/Nigeria, the client.

USAID/Nigeria, with NMEMS II support, will:

- Provide the team with a general list of suggested organizations and contact information
- Arrange for initial communications with appropriate contacts with USAID MARKETS

Before In-Country Work:

- Documents. Identify, prioritize and furnish background materials for the consultants, preferably in electronic form
- USAID-Supplied Evaluation Participants. Provide guidance regarding participation in the assignment by Mission staff (i.e. who will participate, how long, source of funding for their participation)

During In-Country Work:

- Other Meetings. If appropriate, assist in identifying and helping to set up meetings with local professionals relevant to the assignment.
- Facilitate Contacts with Partners. Introduce the team to project partners, local government officials and other stakeholders and, where applicable and appropriate, prepare and send out an introduction letter for team's arrival and/or anticipated meetings

After In-Country Work:

- Timely Reviews. Provide timely review and approval of all deliverables.

NMEMS II Roles and Responsibilities (in collaboration with evaluation team leader and USAID/Nigeria):

- Local Consultant: Assist with identification hiring of potential local consultants and provide contact information.
- Logistics: Coordinate all assignment related expenses for their consultants incurred in carrying out this review including travel, transportation, lodging, and communication costs, etc.
- Organizing meetings: Assist the team in expanding the list of organizations and persons to contact, and arranging key meetings and appointments with federal, state and local government administration officials; and accompany the team on all introductory interviews (especially important in high-level meetings)

Deliverables:

Work Plan:

During the TPM, the team will prepare a detailed work plan, which will include the methodologies to be used in the evaluation. The work plan will be submitted to the USAID/Nigeria EGE Team for approval no later than the fourth day of work.

Methodology Plan:

A written methodology plan (evaluation design/operational work plan) will be prepared during the TPM and discussed with USAID prior to implementation.

Discussion of Preliminary Draft Evaluation Report:

The team will submit a rough draft of the report to the USAID MARKETS Project Contracting Officer's Representative (COR) and EGE Team, who will provide preliminary comments prior to final Mission

debriefing. This will facilitate finalization of draft report that will be left with the Mission upon the evaluation team's departure.

Debriefing with USAID:

The team will present the major findings of the evaluation to USAID/Nigeria through a PowerPoint presentation after submission of the draft report and before the team's departure from the country. The debriefing will include a discussion of achievements and issues as well as any recommendations the team has for possible modifications to project approaches, results, or activities. The team will consider USAID comments and revise the draft report accordingly, as appropriate.

Draft Evaluation Report:

A draft report of the findings and recommendations should be submitted to the USAID MARKETS project COR prior to the team leader's departure from Nigeria. The draft report will include, at a minimum, the following: scope of work; methodologies used; important findings (empirical facts collected by evaluators); conclusions (evaluators' interpretations and judgments based on the findings); actionable recommendations (proposed actions for USAID/Nigeria management based on the conclusions); lessons learned (documented and highlighted); and future directions.

Final Report: The team will submit a final report that incorporates the team responses to Mission comments and suggestions no later than two weeks after USAID/Nigeria provides written comments on the team's draft evaluation report (see above). The format will include an executive summary, table of contents, methodology, findings, and recommendations. The report will be submitted in English, electronically. The report will be disseminated within USAID and submitted to the Development Experience Clearing House. Proposed Evaluation Report Outline (50 pages maximum) (To be finalized during Team Planning Meeting)

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XI. NMEMS II AND MISSION CONTACT PEOPLE/PERSON

1. NMEMS II:

Dr. Carlos Torres, NMEMS II Chief of Party (+234) 803 934 4545
Zakariya Zakari, Deputy Chief of Party (+234) 803 636 2063

2. USAID/Nigeria:

Nduka Okaro (+234) 805 -172-6840
Abdulkadir Gudugi (+234)-802-307- 6128

Cost Estimate – TBD

Provided separately as an evaluation budget accompanying this report.

Attachments:

- a. USAID Nigeria Strategic Plan 2010-2013
- b. Lessons Learned Reports and all annual reports since MARKETS inception
- c. MARKETS Revised PMP 2008
- d. BtM2 PMP
- e. Final MARKETS FY07 Work plan
- f. USAID Evaluation Policy
- g. USAID MARKETS 2010 Assessment Report prepared by Sibley International
- h. World Bank Doing Business Report
- i. National Bureau of Statistics Poverty and Agriculture Report

ANNEX 2: METHODOLOGY AND FIELD VISITATION SITES

A variety of methods and approaches were used to collect and analyze information relevant to the evaluation objectives and questions outlined in the Scope of Work for the USAID/Nigeria MARKETS Project. The following approach was used:

1. **Review of background materials**
2. **Team planning meeting July 18th – 23rd**
3. **Development and pretesting of focus group and interview guides**
4. **Site selection**
5. **Design constraints and limitations**
6. **Data analysis**
7. **USAID debrief/PowerPoint Presentation July 13th 2012**
8. **Draft Report submitted to USAID 1st week of August**
9. **Final Report submitted**

1. Review of background materials. Documents relevant to the Nigeria MARKETS Project were reviewed and analyzed. These include MARKETS Program Description, Annual and Quarterly reports and indicators, annual Project Management Plans (PMPs), annual work plans, technical and training materials, past program evaluations and assessments, including Lessons Learned from MARKETS Program, USAID MARKETS Project Assessment by Sibley International and Crimson Capital, USAID/Nigeria Gender Strategy, draft copy of the Multi Year Feed the Future Strategy 2013 – 2018 of the EGE Team and other documents related to the project.

2. Team Planning Meeting. A team of two international consultants worked together with two national consultants and two assistants to conduct the evaluation. The team held a 5-day team planning meeting (TPM) between the 18th and 23rd of July 2012 before commencing with the field site visits as required in the Evaluation. The TPM reviewed and clarified questions on the evaluation SOW, clarified USAID's expectations of the evaluation and the evaluation team. To do this, the Evaluation Team held meetings with the USAID – Nigeria, MARKETS, MEMS-2 together and independently (with the USAID EGE Team). The TPM also determined details of the methodology, drafted an initial work plan, decided on how data will be collected and what data collection tools will be used, finalized the evaluation questions for key informant interviews in Abuja and the field, as well as for focus group discussions (FGDs). The TPM further determined the States that will be visited based on the criteria of number of MARKETS activities, history of activities and number of beneficiaries in each of the 23 States. The evaluation team also decided on the field logistics in terms of travel time, field days and sites (with input from the USAID EGE Team) to be visited by activity. Finally the team developed the evaluation report table of contents, clarified team members' roles and assigned drafting responsibilities for the evaluation draft report. The TPM outcome was shared with USAID/Nigeria.

3. Interviews. Focus Group Discussions and Key Informant Interviews schedules were used to collect data from MARKETS project beneficiaries, partners and collaborators. The team conducted focus group interviews with farmer groups and key informant interviews with service providers, agro dealers, agro processors, banks and MARKETS partners such as IITA, IFPRI, IFDC, as well as the authorities at the Federal and state levels such as the FMARD (including the Minister of State for Agriculture and Rural Development), FADAMA Programme, Federal Fertilizer Department, agricultural extension agencies and state ministries of Agriculture, large scale processors, credit institutions, and service providers. Information from producer groups and participants in the nutrition program were obtained using focus group discussion at the respective sites. The interview schedule and FGD schedule was pretested using a role play before setting out to the field. By the end of the field work a total of 50 key interviews and 49 focus groups were completed.

4. Site visits. The team visited and interviewed farmers (groups), agro industries and processors, banks, service providers, partners and collaborators in the following States; Anambra, Ebonyi, Oyo, Ondo, and Ogun in the South; Abuja, Benue and Kwara in the Central Nigeria and Kano and Kaduna in the North. The team also interviewed government ministries, departments and agencies such as the Federal Ministry of Agriculture and Rural Development, Federal Fertilizer Department, State Agricultural Development Programmes and Ministries of Agriculture. The field survey visits lasted from the 24th of June to 6th of July 2012. During the field survey daily contact was maintained between the Team Leader and the rest of the team members. Field notes were summarized and shared by team members at the end of every week. Effective field days for field work and site visits were 12 days. The Evaluation Team visited these States and sites in three teams of two persons each. This gave the Evaluation Team more mileage in terms of ability to cover most of the activities executed by MARKETS in the field. Effort was made to ensure the safety of the international consultants by keeping them out of the potential security prone areas. National consultants conducted the interviews in these areas/states. Effort was made to ensure the Teams worked within the time limit. Phone call interviews were used to reach certain collaborators and beneficiaries of the project such as Notore in Rivers State, Nigerian Starch Mills in Anambra State and Aba Malting Plant in Abia State.

5. Design Limitations and Constraints. The evaluation team had two weeks to complete field work and had security issues in Kano, Kaduna Plateau, Bauchi, and Gombe states during this time including curfews in and out of Kano and Kaduna cities. The 49 focus groups discussions provided impact measures which were banded into degrees of satisfaction. A rigorous field sampling and statistical analysis were not possible with the amount of field time, security issues and level of effort required. A subset of value chains and locations were selected based on criteria that included the broadest range of MARKETS activities and those value chains which had important lessons, outcomes or impacts to which a new phase of the project can build upon. The focus was to understand the depth of project performance and outcomes rather than the geographic spread of activities.

6. Data Analysis. On return from the field work, the teams debriefed each other, shared and analyzed data collected from all sources; identified and addressed any gaps in data or information; discussed findings and reached agreement on findings, conclusions and recommendations.

At the request of the evaluators MARKETS prepared a cost analysis by nine commodities (cowpea, sesame, sorghum, aquaculture, cocoa, cassava, maize, dairy, rice) and by activity (fertilizer, livelihood & nutrition, and credit commercialization) which is included in the Appendix. MARKETS calculated costs for each as well as cost per beneficiary, cost per state, cost per hectare and cost per season or year. Project costs were designated as under MARKETS or BtM2 funding. They provide a useful measure of which commodities were most and least costly to facilitate, and program activity costs and impacts per beneficiary in fertilizer, livelihood and nutrition, and credit commercialization. They also provided the evaluation team with a cost analysis context for its recommendations.

7. USAID Debrief. The team presented a power point debriefing of main findings and recommendations on the 13th of July 2012 to the USAID Mission.

8. Draft Report. A draft report, taking into consideration comments by USAID, was prepared and submitted to USAID/Nigeria in early August 2012.

Site visit summary:

State	Value Chain	# of KIIs	# of FGDs	Core services
Team 1: Emily & Chuma				
Anambra	rice	1 (ADP)		ES & Equip
Ebonyi	rice	8	2	Producers (2)
				SS Agro processing (1)
				Agro inputs (2)
				ES/BDS (1)
				Credit (1)
				LS Agro processing (1)
Ogun	cassava	1		Agro processing (1)
Ondo	cassava	2		Agro processing (1)
			Service Provider (1)	
Oyo	Aquaculture	4	1	Producer group (1)
				Fish production & smoking (1)
				LS fish production and feed (1)
				Credit (1)
	cassava			IITA Service provider in cassava (1)
Sub Total		14	3	
Team 2: Grace & Anne				
Kwara	Rice	7 (2 ADP, 2F, 1 P/Ag, 2 banks)	4	LS Agro process/Agrodealer (1), Producers (4), Credit (2), Service provider (2), ADP (2), Local Government - Ag commisioner and deputy (2), Zimbabwean Farmers (2). producer group (4, bringing together represenatives from some 17 producer groups)
Benue				
FCT		6(5 GON, 1 F)		GON (5), Facilitator/Sub-contractor (1)

Sub total		14	4	
Team 3: Sambo & Femi				
Kano	Rice		4	Producer groups
		1		Umza Farms International - Processor
		1		KNARDA (ADP) - Partner/Facilitator
		1		KNARDA Fertilizer Voucher Scheme
		1		Credit (1) - Stanbic Bank
	Sorghum		3	Producer groups
		1		*DDI, Kano - Facilitator
		1		Nutrition
Kaduna	Maize		15	Producer groups
		1		SG, 2000 - Facilitator
	Sorghum		16	Producer groups
		1		*Da All Green Seeds - Buyer and Service Provider
		1		*DDI, Kaduna - Facilitator
		1		Credit (1) - Bank of Agriculture
		1		*IAR, Zaria - Service provider for Sorghum & Maize
Sub total		11	38	
Grand Total				
Cross Cutting				
Food Security			1	NPFS (response expected via e-mail from Chude)
Nutrition			1	NPFS
Trade & Transport				Expecting feedback via e-mail
Gender		thru FGD/KII		
Policy				
Partners				
IAR, Zaria				
IITA			1	
IFPRI				No response from IFPRI

IFDC		1		
Nathan Associates		na		
Winrock Intl		na		

ANNEX 3. REFERENCES

1. BtM2 PMP, prepared by Chemonics International Inc. for USAID Nigeria.
2. Commercializing Nigerian Agriculture, prepared by Chemonics International Inc. for USAID Nigeria, April 2012.
3. Final MARKETS FY07 Workplan, prepared by Chemonics International Inc. for USAID Nigeria.
4. Final Report USAID MARKETS Assessment, prepared by Sibley International LLC and Crimson Capital for USAID Nigeria Mission, March 9, 2012.
5. Gender Assessment of the MARKETS Program 2005-2012, prepared by Chemonics International Inc. for USAID Nigeria, April 2012.
6. Impact Assessment: A review of the Family Support Program's Food Supplement Component. March 2010
7. IFDC: Lessons Learned on the Fertilizer Voucher Programmes As of November 2011 (internal document)
8. Lessons Learned from the MARKETS Program (Bridge to MARKETS2), prepared by Chemonics International Inc. for USAID Nigeria, June 2011.
9. MARKETS Quarterly Reports prepared by Chemonics International Inc. for USAID Nigeria.
10. MARKETS Revised PMP 2008 prepared by Chemonics International Inc. for USAID Nigeria.
11. USAID MARKETS Livelihood and Household Nutrition Activity Assessment – A Chemonics Assessment (undated).
12. USAID Nigeria, Multi Year Feed the Future Strategy 2013 – 2018, Economic Growth and Environment, Draft (undated).
13. USAID Nigeria Strategic Plan, 2010-2013

ANNEX 4: PERSONS CONTACTED

State	Name	Position & Institution
Anambra	Mr Sunday Ituma	ADP Programme Manager,
	Mrs Juliet Okoro	Former Director of Extension, ADP, now director of Agric Services, MOA, Abakaliki, Ebonyi State
	Andy Umeobi, and	Permanent Secretary, Ministry of Agriculture, Anambra State
	G. Okoye	MARKETS Desk Officer
	Leo Imoka,	Program Manager of the Anambra Agricultural Development Program.
		Director of Technical Services
		Director of Extension Services
		Monitoring and Evaluation specialist
Ebonyi	O.E. Okpo,	Head, Loans, Bank of Agriculture, Abakaliki, Ebonyi State
	Tony Mouneke	MD Annes Agro Processing Industries Ltd, Former Chair, Abakiliki Rice Milling Company Limited, Abakaliki, Ebonyi State
	Joseph Ununu,	Current Chair of the Abakiliki Rice Milling Company Limited and owner of Zuma Rice Mill Company Limited, Abakaliki, Ebonyi State
	Anthony Sunday Okpe,	Sales Representative, Candel Nig Ltd, Abakiliki, Ebonyi State
	Emmanuel Aneke,	Zonal Manager, South East, Dizengoff W.A. Nigeria Ltd ,
	Okoroji Mathew	Finance and Admin Manager, Ebony Agro Rice Mill Ltd, Ikwo, Ebonyi State
	Engr Ibeh,	Plant Manager, Ebony Agro Rice Mill Ltd, Ikwo, Ebonyi State
	Professor Geraldine Ugwuonah	MD REMS Ventures Enugu,

State	Key Informant	Position/Organization	Contact details	# in Focus Group
Ogun	Yemisi Iranloye	Former MD, Ekha Glucose Factory		
Ondo	Dr. Samson Odedina	MD/CEO Envoy Consult Agric Produce Ltd.	0803 721 3341 adeolaodedina@yahoo.co.uk	
	Dele Ogunlade	MD/CEO Matna Foods Company Ltd	0803 721 3341 adeolaodedina@yahoo.co.uk	
	Roseline O. Ozegbe	Relationship Mgr., First Bank, Ibadan	0802 315 8255 Roseline.ozegbe@firstbanknigeria.com	
	Olusegun Asiwaju	Deputy Zonal General Manager, Bank of Agriculture, Ibadan	0803 313 9791 o.asiwaju@bankofagricultureng.com	
Oyo	Mrs.	General Manager,	0803 403 9234	

	Oluseyi Adeleke-Ige	Durante Fish Industries	Seyi.durantefish@yahoo.com	
	Dr. Gbassay Tarawali	Project Manager (CEDP) Officer in Charge, IITA-Onne,	0803 700 1497 g.tarawali@cgiar.org	
	Hilde Koper-Limbourg	Head, Contracts and Grants, International Institute of Tropical Agriculture	751 7472 x2271 h.koper@cgiar.org	
	Patrice Tunde Adewoyin	Chairman, Catfish Farmers Association of Nigeria Oyo State Chapter		6
	Azeez Oladotun Bello	Co-owner Azemore Abribiz Ltd.		

MARKETS List of Key Informants Interviewed (please list states alphabetically)

State	Key Informant	Position/Organization	Contact Info/email or phone	# in FGD
Abuja - FCT				
	Tayo Adewusu	NPC	08034428689	KII
	V. C. Agu	SCDS	08033119902	KII
	A. S. Balarabe	SA	08035981014	KII
	Bashir Dayyabu	CO	08080636348	KII
	Goni M.	NPC	08035190866	KII
	Anafrida Bwenge	USAID	08036650836	KII
	Maiwada Zubairu	MEMS	08033116655	KII
	Peter Ajibanje	SMES	08023832050	KII
	Benny Mordi Onota	NPFS –National Facilitator, Nutrition and Health	08033947191	KII
	Osho A. O	FFD, Director	08059614012	KII
	Brian Kiger	IFDC	07066096268	KII
	Prof. Chude	NPFS	08033154400	Phone only
	Ken Ukaoha	President; National Association of Nigerian Traders (NANTS)	08033002001	KII
Benue State				
	James Achebi	Chairman	Naka Community	25
	Igba Steven	Chairman	Guma Community (08035748718)	22
	Abah Victor	Chairman	Tseadi, Adaka (08067239222)	11
	R. A. Asongo	Coordinator	EAs in Makurdi, 07035133447	18
	Prof Lawrence Ega	Managing Director,	08036139928	KII

		EGALF		
	Regi George	OLAM		KII
	Bright Okoh	First Bank	07055628093	KII
	R. A. Asongo	ADP, Managing Director	07035133447	KII
	Dinnah Ahure	Nutrition	08067733149	KII
Ebonyi State				
	Oreke David, N	Chairman	FMCS	9
	Nwachukwu Linvinus	Chairman	Groups OJON	11
Oyo State				
	Patrice Tunde Adewoyin	Chairman	CFAN, Oyo State	6
Kwara State				
	Samuel N. Isa	Group leader	Tsaragi	19
	Abbas M. Liman	Group leader	Lade	55
	Alh. Jibril Abubakar	Group leader	Rogun	19
	Moh'd Ndagi Sonlawa	Chairman	Lafiagi	25
	Dr. Sunday Atanta	Managing Director, ADP	08070651069	KII
	Irvine Reid	Zimbabwean Farmers	08058484226	KII
	Alan Jack	Zimbabwean Farmers	08058130006	KII
	Amuda Abdulfatai	OLAM, Coordinator	08038463941	KII
	Lawal Ayodele	ABC, Lead Coordinator	08076015761	KII
	Ibrahim Ayeni	First Bank, Manager	08062407845	KII
	Kunle Ogedengbe	UBA, Branch Manager	08033197465	KII
	Anthony Okulaja	ADP, zonal manager	08033974593	KII
	Alh. Muhammad Babakpan Isah	Hon. Commissioner, Agriculture	08039092037	KII

State	Key Informant	Position/Organization	Contact Info/email or phone	# in FGD
Kaduna	Bala Mohammed Abdullahi	Senior Manager, BOA	Bank of Agriculture, HQs	KII
	Egr. S. D. Yakubu Atar	Vice Chairma/CEO – Da All Green Seeds Ltd	08037016371	KII
	Dr. Hassan Namakka	White Sorghum Agronomist	Diamond Development Initiative (DDI)	KII
	Prof D. Aba	Lead Researcher Sorghum	IAR/ABU Zaria/08035044260	KII
	Mukhtar Ibrahim	MARKETS Desk Officer	KADP/08039131818	KII
	Ben Igwe	Grains Dev Manager	Aba Malting	KII
	Alhaji Musa Yahaya	Chairman	Nassara farmere MPCs, Ikara, Kaduna State	20
	Jibrin Buhari	Chairman	Unguwar Akawu MPCs, Ikara, Kaduna State	12

	Rasila Lukka	Chairman	Garko Sabon Gida FCS, Ikara, Kaduna State	5
	Markus Adamu	Secretary	Anguwar Makama Dan Lawal FCS, Ikara, Kaduna State	8
	Sarah Zakari	Chairman	Saibu Women FCS Soba LGA, Kaduna State	8
	Saraya Maida	Chairman	Alimsas MFCS, Soba, Kaduna State	16
	Jaafaru Muhammed	Chairman	Nassara Gafta MFCS	13
	Jibrin Mohammed	Chairman	Anguwar Baro MPCs, Soba LGA, Kaduna State	9
	Hauwa Yahaya	Chairman	Unguwar shamaki MPCs, Soba LGA, Kaduna State	11
	Halima Aminu	Chairman	Tudun Tsebu Women 2 FC, Soba, Kaduna State	9
	Eli Yau	Chairman	Unguwar Barau Wome Farmer Cooperative, Soba, Kaduna State	8
	Alhaji Haliru Abdu	Chairman	Anguwar Sarki Dorayi MPCs (A), Makarfi LGA, Kaduna State	13
	Hauwa Abdu	Chairman	Anguwar Sarki Dorayi MPCs (B), Makarfi LGA, Kaduna State	20
	Umma Hussaini	Chairman	Dorayi Women Farmers Cooperative Society, Makarfi LGA, Kaduna State	22
	Alhaji Yunusa	Chairman	Igabi Fadama Coop. Society, Igabi, Kaduna State	18
	Yusuf Adamu	Chairman	Sabon Gari Igabi Cassava cooperative society, Igabi, Kaduna State	9
	Maimuna Isa	Chairman	Igabi Garkuwa Women Farmers Association, Igabi, Kaduna State	15
	Asabe Kabir	Chairman	Igabi Women Cooperative Society, Igabi, Kaduna State	14
	Ibrahim Muhammad	Chairman	Igabi group farmers cooperative society, Igabi, Kaduna State	20

	Jamima Kimba	Chairman	Low-cost Unguwan Bawa Women Coop Society	5
	Aliyu Samaila	Chairman - 08028148530	Garu Farmers Association, Lere LGA, Kaduna State	9
	Yunusa Abdullahi	Chairman	Saminaka Arabic Teachers Farmers Coop Society, Saminaka, Kaduna State	7
	Hamza Idris	Chairman	Unguwan Bawa gari MPCs, Saminaka, Kaduna State	8
	Alh Rabiu Abdu	Chairman	Katurje FCS. Saminaka, Kaduna State	9
	Bello Nabawa Tasiu	Chairman - 08034418733	Saminaka Commercial Farmers Coop Society, Kaduna State	11
	Bashir Mairiga	Chairman – 08039394828	Lere Agro-inputs Dealeers Association	6
	Suleiman Bala	Chairman	Makera MPCs, Saminaka, Kaduna State	7
	Hannatu Saminaka	Chairman	Kauna Women MPCs, Saminaka, Kaduna State	7
	Isaac Adamu	Secretary	KADP MPCs Lere, Kaduna State	6
Kano	Hamza Ahmed	Manager - 08096225428	Stanbic Bank, Kano	KII
	Prof Sani Miko	Country Director	Sasakawa Global 2000, Kano	KII
	Abdul Rahman	Assistant Director Crops, /Coordinator FVP	KNARDA, Kano	KII
	Halima T. Bello	Founder/Director MARKETS Nutrition	WOGEND Kano, Kano State	KII
	Mukhtar A. Khaleh	MD/CEO	Umza Rice, Kano	KII
	Othman Yahaya	Director Extension Services 08067666928	KNARDA, Kano	KII
	Yakubu Adamu	Chairman	Cediyar Kuda farmer's group Kura, Kano State	18
	Alhaji Awaisu		Butalawa Keso Rice producers, Kura Kano State	10
	Hajiya Ramatu Sale		Kura small scale rice processors, Kura Kano State	14
	Andiyan Lawan		Alkalawa Raayi	18

			Women rice producers, Kano State	
	Kamilu Ado		Butalawa sauki rice producers, Kura, Kano State	25
	Hajiya Amina		Tudun Murtala Dararrafе women Association, Kano	9
	Alhaji Muazu Lawan Ranka		Ranka Gabas sorghum farmers Association, D/Tsalle, Kano State	20
	Muhammadu Sani Dantine		Magami Yandankali fadama farmers, D/Tsalle, Kano State	23

ANNEX 5: FOCUS GROUP AND KEY INFORMANT DISCUSSION GUIDES

Group Id Number _____

MARKETS EVALUATION FOCUS GROUP DISCUSSION (FGD) INSTRUMENT

Researcher Details

Date of focus group discussion (FGD) (dd/mm/yy):

Researchers (at least two researchers required to conduct this FGD):

Name 1 _____

Name 2 _____

Name of producer groups association (PGs) or Indirect Beneficiaries (IBs) this group belongs

Note: Producer Group is an association of outgrowers linked to the processors within the MARKETS program and Indirect beneficiaries are those groups or individuals that have come in contact with direct beneficiaries of the MARKETS project and have benefited indirectly therefrom.

Town/Village of the PG _____

Local Government Area _____

State _____

Time discussion started: _____

General instructions to researcher(s):

The FGD for this study seeks to get responses from MARKETS direct and indirect beneficiaries regarding their participation in the MARKETS program. To help facilitation of discussion, researchers should ensure that they have background information on key activities and services that concern the specific respondents. As much as possible, include food security issues and also obtain gender disaggregated data – this could be done through discussions with two sets of groups - those groups with majority male membership and those with majority female memberships where they exist. Since responses to these guidelines are qualitative, researchers are responsible for summarizing the discussion and writing a report at the end of each FGD. To ensure fresh and clear recall, these reports should be prepared at the end of each day.

To facilitate traceability, include State code in the FG ID, followed by respondent number and the first letter in the respondent group (P for producers, IB for indirect beneficiaries). The codes are: Anambra (01), Benue (02); Ebonyi (03), Kaduna (04), Kano (05), Kwara (06), Ogun (07), Ondo (08), Oyo (09). Example: 2nd respondent in Anambra: 01/02/P.

In this guideline, we refer to intervention as any development project, activity or service rendered through the MARKETS program.

Names and positions of focus group discussion participants

Name of discussants	Gender	Position in in the group	Position in community
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			

Key Question 1: Were activities implemented as planned?

- (i) What activities did you participate in during this program?

- (ii) When?

- (iii) How timely was each activity?

Tip: The researcher should have the list of activities handy so as to facilitate discussion in an informed manner. Remember to consider and record timeliness – timely, not timely or not done at all.

Key Question 2: How satisfied were the beneficiaries with their involvement in MARKETS?

- i) What benefits did you obtain from MARKETS that you would not have if you were not part of the activity
 - Implementation in terms of timeliness
 - Yield
 - Income
 - Credit
 - Technology

- Training/Extension
- Inputs

ii) Satisfied? Y/N

- Implementation in terms of timeliness
- Yield
- Income
- Credit
- Technology
- Training/Extension
- Inputs

Tip: Involve indirect beneficiaries. Encourage open ended discussion and responses and report satisfaction levels (Not satisfied, Satisfied, Very satisfied)

Key Question 3: To what extent did the beneficiaries experience expected changes in their skills, knowledge, attitudes, behaviors, yield, income, credit, technology, Fertilizer Voucher.

- i) How is your producers Association using the skills/knowledge gained from the MARKETS program in.....?

- ii) As a result of MARKETS, do you prefer to work as an individual or as part of a producers' association?

- iii) Have you had any -----

	Before MARKETS	Because of MARKETS
Loans		
Contract		
Formal transactions		
Yield		
Income		
Credit		
Technology		
Training/Extension		
Inputs (fertilizer, seeds, chemicals)		

Tip: Where exact quantities are not available, marginal increases and/or proportions on a Before and After basis could be used.

Key Question 4: To what extent did MARKETS project meet the group's needs that led to this project? Do those needs still exist and are there other related needs that have arisen that the project did not address?

- i) Were you involved in deciding which MARKETS activities to implement/offer? If so, how?

- ii) What additional activities would you have wanted MARKETS to include which were not?

- iii) Are there new needs coming out of MARKETS supported activities?

Tip: Researcher explains question carefully to respondent, provides prompts as needed, and listens to gaps of design and delivery and emerging Issues/constraints (e.g., lack of storage for improved yields)

Key Question 5: As a pilot, what are the likely long-term outcomes of the project?

- i) When the MARKETS program ends, will you be able to continue these activities? Yes/No
- ii) If Yes, how?
- iii) What is required?
- iv) If No, why?

Tip: Researcher should be as explorative as possible and close discussion by finding out if respondents have any other points they would like to raise.

time discussion ended _____.

Miscellaneous notes and observations:

Key Informant ID _____

MARKETS EVALUATION KEY INFORMANT INTERVIEW DRAFT INSTRUMENT

Researcher Details

Date of Key Informant Interview (KII) discussion (dd/mm/yy):

Name of Researcher 1 _____

Name of Researcher 2 _____

Name of Key Informant (KI) _____
Position _____
Name of Organisation/Location _____
Local government Area _____
State _____
Time interview started: _____

Note: Key Informant is a staff or representative of: a beneficiary firm; a state, local or federal govt ministries/ departments/ agencies; a partner organisation or other person that has deep insight, knowledge and experience in other partners and collaborators as well as resourcefulness with regards to MARKETs' (past, current and/or future) program activities and interventions.

General instructions to researcher(s):

This instrument seeks to get responses from MARKETs Key Informants from the perspectives of value chain drivers (processors, partners and collaborators and other relevant institutional and individual stakeholders). *To help facilitation of discussion, researchers should ensure that they have background information on key activities and services that concern the specific respondents. As much as possible, integrate gender as well as food security issues in the discussions. Since responses to these guidelines are qualitative, researchers are responsible for summarizing the discussion and writing a report at the end of each KII. To ensure fresh and clear recall, these reports should be prepared at the end of each day.*

Include State code in the KI ID, followed by respondent number. The codes are: Anambra (01), Benue (02); Ebonyi (03), Kaduna (04), Kano (05), Kwara (06), Ogun (07), Ondo (08), Oyo (09). To facilitate traceability, also include the first letter in the respondent group (Ad for ADPs, Ag for agro-dealers, Am for agro-marketers, B for Banks, F for facilitators and service providers, P for producers, processor, etc. Example: 2nd respondent in Anambra for processors: 01/02/P.

In this guideline, we refer to intervention as any development project, activity or service rendered through the MARKETs program.

Key Question 2: How satisfied were the beneficiaries with their involvement in MARKETS?

Question for: Processors, ADPs, Facilitator, BOA/Banks/MFIs, Producer groups, FADAMA, IITA, IFDC,IFPRI, FMARD, Agro-dealers

iii) What benefits did you derive from the program that you would not have if you were not part of the activity?

- Knowledge
- Income
- Jobs
- Consistent Supply
- Productivity /Output
- “Value-addition” (%)
- Product diversification

iv) Satisfied? Yes/NO?

- Implementation in terms of timeliness
- Knowledge
- Income
- Jobs
- Consistent Supply
- Productivity /Output
- “Value-addition” (%)
- Product diversification

Tip: Ensure that discussions include other MARKETS stakeholders. Encourage open ended discussion and responses and report satisfaction levels (Not satisfied, Satisfied, Very satisfied)

Key Question 3: What was the extent of projects' results modification during the implementation period?

Question for: USAID, MARKETS

Tip: Remember to talk to the MARKETS field officials and implementing partners.

Key Question 5: How effective and useful in decision-making was the MARKETS M&E system in tracking implementation, progress, evaluating value chain performance, and identifying outcomes of the initiatives.

Tip: Remember to talk to the MARKETS field officials and implementing partners

Key Question 6: To what extent did the beneficiaries experience expected changes in their skills, knowledge, attitudes, behaviors, jobs created, output, income, credit, technology, fertilizer.

Question for: Processors, Facilitators, Banks/ credit, Agro-dealers, Agro-marketers

iv) How is your organization using the skills/knowledge gained From MARKET'S program in
(Tip: Open ended question)

v) Before and after MARKET'S, what has changed in _____

	Before MARKET'S	Because of MARKET'S
Loans (Number)		
Credit (Value)		
Contract/ Formal transactions		
Output (<i>processors</i>)		
Income		
No. of employees		
Technology		
Training/Extension (<i>facilitators</i>)		
Inputs (<i>raw materials: processors</i>)		
Other (<i>specify</i>)		

Tip: There are two levels of impact – organizational and customers. Explore for details on changes in Business/Group Orientation and behaviours.

Key Question 7: To what extent did MARKETS project meet the needs that led to this project? Do those needs still exist and are there other related needs that have arisen that the project did not address?

Question for: MARKETS, USAID –EGE, Processors, Facilitators, Government, ADPs, IITA, IFDC,IFPRI, BDS, FADAMA, Notore, Bank of Agriculture, First Bank

iv) Do you think that MARKETS met the needs that led to the original project?

v) Do these needs still exist?

vi) Are there new needs coming out after the MARKETS I project?

Tip: Researcher explains question carefully to respondent, provides prompts as needed and listens to gaps of design and emerging Issues/constraints

Key Question 8: As a pilot, what are the likely long-term outcomes of the project?

Question for: all stakeholders

v) From your experience give us your thoughts on the sustainability of MARKET'S interventions

vi) When MARKET'S ends will you be able to continue the activities? Yes/No

- If yes, How?

- What is required?

- If No, why?

Tip: Researcher should be as explorative as possible and close discussion by finding out if respondents have any other points they would like to raise.

Time discussion ended: _____.

Miscellaneous Notes and Observations

ANNEX 6: MARKET'S BtM2 Cost Analysis: prepared by MARKET'S July 12 at request of evaluation team

MARKET'S / Bridge to MARKET'S II Final Report: Cost Analysis

I. Summary by Commodity/Activity: MARKET'S and Bridge to MARKET'S II

The tables below summarize impact by commodity and activities. Please also refer to tables given on pages 76-80 of the MARKET'S / BtM2 final report.

COWPEA	MARKETS
Project cost	\$ 1,417,654
Impact Result 1: Cost per farmer	\$ 108
Impact Result 2: Cost per Hectares	\$ 73
Impact Result 3: Gross Revenue per \$1 spent	\$ 1.83
Cost per season	\$ 472,551
Cost per state	\$ 708,827

SESAME	MARKETS	Bridge to MARKETS II
Project cost	\$ 1,829,322	\$ 374,130
Impact Result 1: Cost per farmer	\$ 109	\$ 86
Impact Result 2: Cost per Hectares	\$ 85	\$ 85
Impact Result 3: Gross Revenue per \$1 spent	\$ 6.89	\$ 16.84
Cost per season	\$ 609,774	\$ 374,130
Cost per state	\$ 261,332	\$ 53,447

SORGHUM	MARKETS	Bridge to MARKETS II
Project cost	\$ 2,536,140	\$ 408,205
Impact Result 1: Cost per farmer	\$ 77	\$ 43
Impact Result 2: Cost per Hectares	\$ 63	\$ 39
Impact Result 3: Gross Revenue per \$1 spent	\$ 7.37	\$ 18.13
Cost per season	\$ 507,228	\$ 408,205
Cost per state	\$ 634,035	\$ 102,051

AQUACULTURE	MARKETS	Bridge to MARKETS II
Project cost	\$ 1,861,438	\$ 393,767

Impact Result 1: Cost per farmer	\$ 337	\$ 370
Impact Result 3: Gross Revenue per \$1 spent	\$ 8	\$ 116
Cost per season	\$ 372,288	\$ 393,767
Cost per state	\$ 372,288	\$ 78,753

COCOA	MARKETS	Bridge to MARKETS II
Project cost	\$ 1,713,800	\$ 443,052
Impact Result 1: Cost per farmer	\$ 983	\$ 254
Impact Result 2: Cost per Hectares	\$ 283	\$ 73
Impact Result 3: Gross Revenue per \$1 spent	\$ 5.02	\$ 19.41
Cost per season	\$ 1,713,800	\$ 443,052
Cost per state	\$ 428,450	\$ 110,763

CASSAVA	MARKETS	Bridge to MARKETS II
Project cost	\$ 5,698,011	\$ 551,757
Impact Result 1: Cost per farmer	\$ 4,929	\$ 315
Impact Result 2: Cost per Hectares	\$ 4,929	\$ 315
Impact Result 3: Gross Revenue per \$1 spent	\$ 0.25	\$ 4.89
Cost per season	\$ 5,698,011	\$ 551,757
Cost per state	\$ 712,251	\$ 68,970

MAIZE	MARKETS	Bridge to MARKETS II
Project cost	\$ 1,059,344	\$ 410,574
Impact Result 1: Cost per farmer	\$ 353	\$ 68
Impact Result 2: Cost per Hectares	\$ 174	\$ 45

Impact Result 3: Gross Revenue per \$1 spent	\$	7.93	\$	34.29
Cost per season	\$	1,059,344	\$	776,562
Cost per state	\$	1,059,344	\$	155,312

DAIRY	MARKETS
Project cost	\$ 1,342,603
Impact Result 1: Cost per farmer	\$ 2,311
Impact Result 2: Production increase per \$1 spent	\$ 1,118,836
Impact Result 3: Gross Revenue per \$1 spent	\$ 2
Cost per season	\$ 447,534
Cost per state	\$ 447,534

RICE	MARKETS	Bridge to MARKETS II
Project cost	\$ 6,337,705	\$ 776,562
Impact Result 1: Cost per farmer	\$ 167	\$ 68
Impact Result 2: Cost per Hectares	\$ 108	\$ 45
Impact Result 3: Gross Revenue per \$1 spent	\$ 18.08	\$ 34.29
Cost per season	\$ 1,267,541	\$ 776,562
Cost per state	\$ 1,267,541	\$ 155,312

FERTILIZER	MARKETS	Bridge to MARKETS II
Project cost	\$ 4,589,774	\$ 1,741,542
Impact Result 1: Cost per farmer	\$ 13	\$ 34
Impact Result 2: Sales per \$1 spent	\$ 8	\$ 3

Cost per season	\$ 1,529,925	\$ 1,741,542
Cost per state	\$ 1,147,444	\$ 1,741,542

LIVELIHOOD AND NUTRITION	MARKETS	
Project cost	\$ 2,126,069	
Project cost per beneficiary trained in livelihoods and nutrition	\$ 527	
Cost per state	\$ 708,690	
Cost per year	\$ 2,126,069	

CREDIT AND COMMERCIALIZATION	MARKETS	Bridge to MARKETS II
Project cost	\$ 1,671,895	\$ 452,255
Amount of credit leveraged for beneficiaries	\$ 76,508,572	\$ 25,217,073
Cost per no. of banks and MFI loans facilitated	\$ 5	\$ 5
Credit leveraged per \$1 spent by project	\$ 46	\$ 56

II. Cost Notes

1. Costs incurred before MARKETS' contract end date but invoiced after December 2010 are not included in this analysis.
2. The Bridge to MARKETS II analysis was conducted in April 2012 prior to the close of the contract. Therefore, it was only possible to analyze costs invoiced through February 2012.
3. Subcontract amounts associated with specific commodities or activities were directly allocated in their entirety. For example, cost of the international subcontract to Nathan Associates was allocated to the trade and transportation line item, while a contract to a local firm to conduct training in rice cultivation was allocated to the rice line item.
4. Subcontracts for multiple commodities or activities, for example the Winrock subcontracts or the first MARKETS subcontract with IITA, were apportioned based on the total number of activities and the approximate level of effort to those activities and commodities. For example, IITA's first

subcontract was to help increase productivity in aquaculture, rice, sorghum, dairy, and cowpea, and the contract was therefore apportioned among those five commodities.

5. Salaries of staff exclusively associated with specific activities, such as the M&E team or the Credit Specialist, were allocated directly to those line items.

6. Costs not associated with any specific commodity or activity, or general project management and operational costs, were apportioned based on the percentage cost of the line item. As an example, agricultural policy accounted for 7% of the direct costs of all activities and commodities. Therefore 7% of the general project management and operational costs were allocated to agricultural policy. General project management costs include staff salaries and benefits; operational costs such as security, rent, and travel; and indirect costs such as overhead and contract fee.

ANNEX 6: USAID INCREMENTAL FUNDING OF MARKETS & BTM2

	Amount (US \$)	Conditions
Purpose		
Initial contract funding	6,628,605	Includes \$818,000 set-aside for dairy program
Inclusion of PRISMS Project	3,564,170	Must complete micro-finance SOW
Incremental Funding	1,933,000	\$983,000 to meet biodiversity earmark
Incremental Funding	1,000,000	\$800,000 to meet credit earmark
Incremental Funding	1,786,207	None
Incremental Funding	149,975	From Nigeria Breweries GDA
Inclusion of PEPFAR	2,462,517	Must complete PEPFAR SOW
Incremental Funding	1,900,000	None
Addition of GFSR	23,000,000	Must meet GFSR requirements
Incremental Funding	366,408	None
Incremental Funding PEPFAR	1,055,364	Must complete PEPFAR SOW
Increased CORE obligation	6,324,442	None
Increased CORE obligation	1,528,724	None
Bridge to MARKETS II contract - initial obligation	6,200,000	See SOW. Period of Performance to October 29, 2011
Bridge to MARKETS II incremental funding	940,478	Increased obligation to be fully funded
Bridge to MARKETS II Costed Extension	2,433,304	Extended period of performance to April 27, 2012
TOTAL	\$61,273,193.72	

Sources: MARKETS 2010 Project Assessment and MARKETS PROJECT, July 24, 2012.

ANNEX 7: MARKETS RESULTS FRAMEWORK

USAID/MARKETS EGT RESULT FRAMEWORK: Improved Livelihoods in Selected States

SO 12: Improved Livelihoods in Selected Areas

Indicator:

S12.0.1 Income from selected commodities and products

IR 12.1: Increased Market-Driven Employment Opportunities

Indicators:

-S 12.0.1 Income from selected agricultural commodities and products.

-S12.1. New permanent jobs created in assisted enterprises.

-Number of clients networked into MARKETS.

-Number of agribusiness firms assisted.

-Volume of bulk commodities processed into value-added products.

-Volume of value-added commodities and products.

-Value of value-added commodities and products.

-Number of people trained on private sector growth training.

-S12.3.3 Enterprises benefiting from Business Development Services (BDS).

IR 12.2: Increased Agricultural Productivity and Marketing

Indicators

-S12.2.1 Productivity of selected commodities and products.

-S12.2.2 Area under Improved Management.

-EG 5.2.5 Number of additional hectares under improved technologies or management practices as a result of USG assistance.

-S12.2.3 Sales of selected Ag/NRM commodities and products.

-S12.2.4 Clients using improved technologies.

-S12.2.5 Number of Technologies introduced (specific on agric technologies made available for transfer).

-EG 5.2.12 Number of individuals who have received USG supported short term agricultural sector productivity training.

-Amount of gross revenue generated.

-Quantity of fertilizers sold by the private sector.

IR 12.3: Increased commercial viability of micro, small and medium enterprises

Indicators:

-Number of business deals facilitated by MARKETS.

-EG 5.2.14: Percentage changes in value of purchases from smallholders of targeted commodities.

-EG 5.2.11 Number of public-private partnerships formed as a result of USG assistance.

-S12.3.4 Sustainable producer Associations.

-EG 5.2.9 Number of producers organizations, water users associations, trade and business associations, and community-based organizations (CBOs) receiving USG assistance.

-EG 5.2.10 Number of agriculture-related firms benefiting directly from USG supported interventions.

-Membership of Sustainable producer associations assisted by MARKETS.

-Number of farmers receiving extension services.

-Amount of financial credit leveraged for farmers and agro-processors.

-S12.3.2 Value of loans disbursed.

-Number of bank loans facilitated by MARKETS.

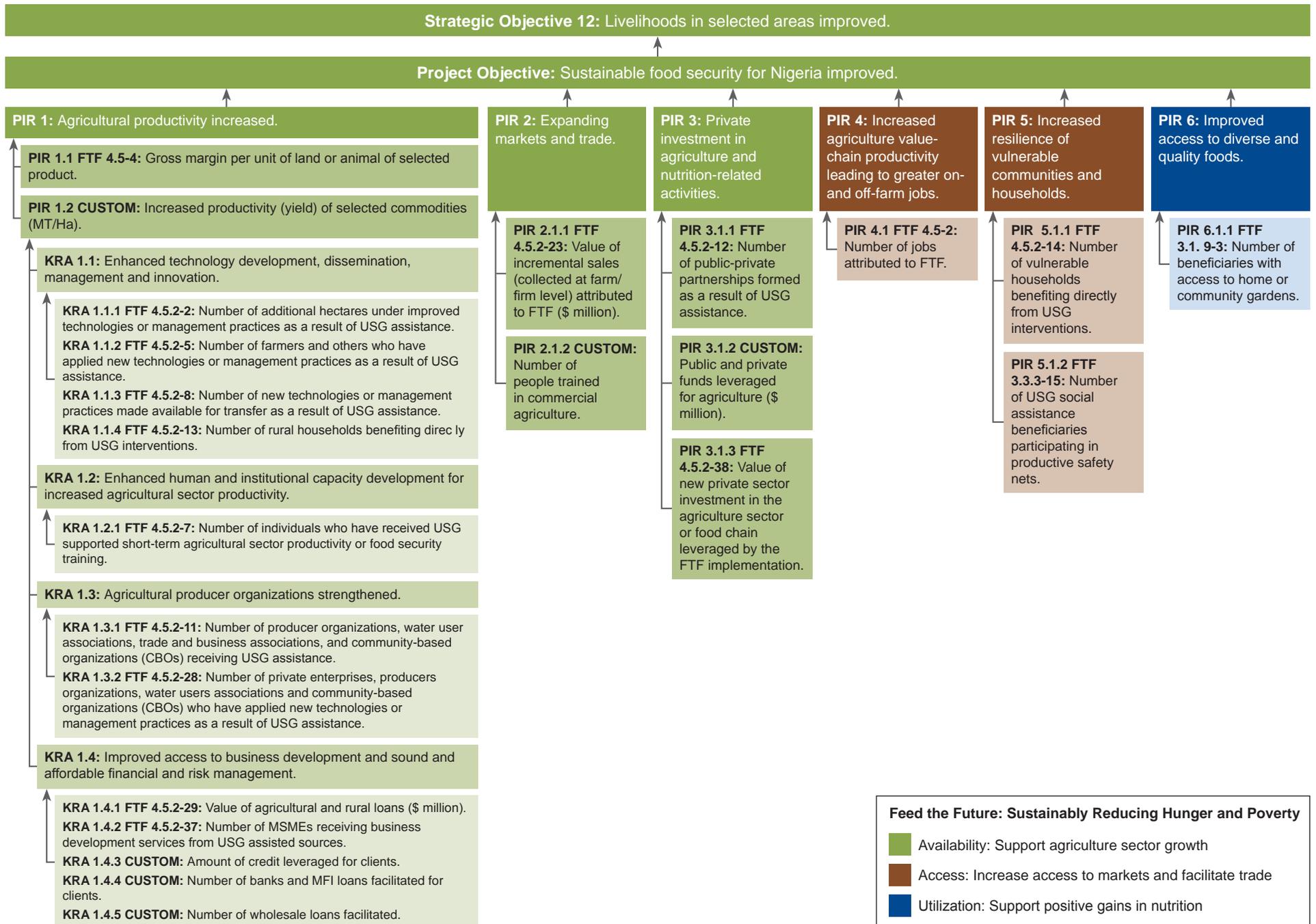
-S12.3.1 Number of loans disbursed.

-Number of MFI and MSME training.

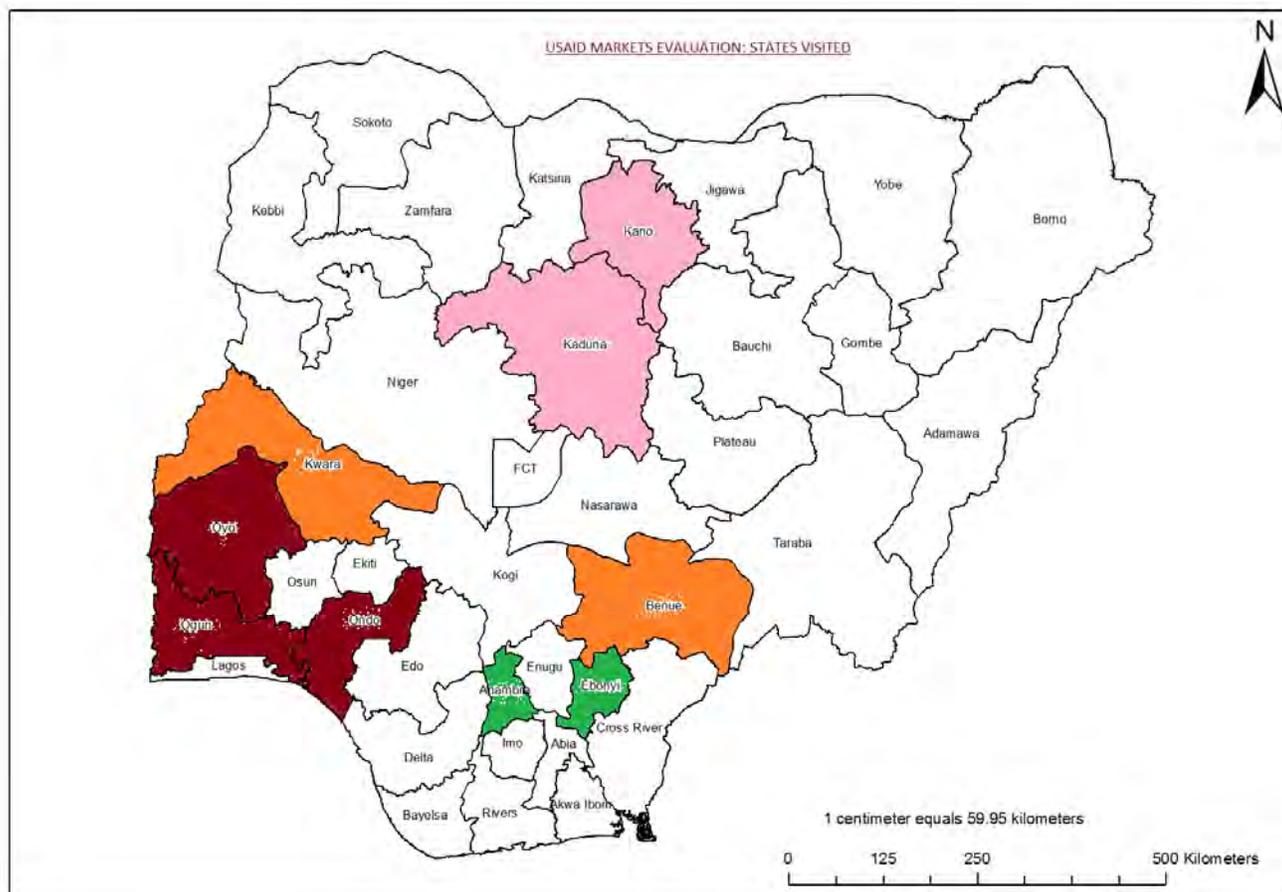
-Number of wholesale loans facilitated.

-Number of producers using market information.

Bridge to MARKETS 2 Results Framework



ANNEX 9: SITES



i

Cowpea seeds did not fair as well as others due to difficulties in producing a crop of better enough quality to capture a niche market.

ⁱⁱSome farmers in Benue complained about the non-suitability of Faro 44 for their soils. This while bringing out the limitation of the acclaimed variety, also shows the alertness of the farmers in providing feedback that could lead to further R&D on more adapted varieties.

ⁱⁱⁱThis is one of the opportunities that MARKETS leveraged. Olam and other agro-industries had already introduced out-grower schemes, including supporting them with input packages.

^{iv} Kano utilized organized farmer groups who had deposited savings in their respective farmer group saving account to purchase the fertilizer and were working with the state extension agency; Kwara were farmers who had been surveyed by the state's Ministry of Agriculture in 2009-2010. Bauchi were members of registered and certified farmer groups (they had to produce their certificate of registration) that the project surveyed and identified. IFDC identified approximately 98,000 farmers but only ended up targeting 25% of them due to funding resources by the state. Taraba farmers were identified by a household survey that the state conducted with the assistance of the project, limited to 2 farmers/household, wherein 160,000 farmers were identified.

^vElection year, reduced resources

^{vi}IFDC Nov. 2011: Lessons Learned on the Fertilizer Voucher Programmes

^{vii} Evaluation Team emphasis per IFDC data

^{viii}Proportions of those receiving as compared to the targeted numbers are not indicated

ix Some Kano FGD participants indicated that the FVP went fairly smoothly in the first year and farmers appreciated the quality of fertilizer obtained.

xThe remaining 60% was still outstanding at the time of this evaluation.

xiIn Tsaragi and Lade Local Government Area (LGA), farmers reported the purchase of 10 tractors – 7 in Tsaragi and 3 in Lade.

xiiFarmers participating in the evaluation FGDs attributed all these developments to MARKETS training and resultant higher yields, incomes and growing expansion of surface areas cultivated.

xiiiWith the FVP, farmers were expected to complete their fertilizer needs by buying from private dealers at open market price. The amount they purchased outside of the FVP was not captured by the MARKETS M&E system.

xiv See the March 2010 USAID MARKETS Project Assessment, prepared for USAID by Sibley International, page iii.

xvGrand Cereals Limited and Dala Foods (production of fortified nutritional supplements from local products)

xviInformation from USAID MARKETS Livelihood and Household Nutrition Activity Assessment (undated).

xviiImpact Assessment: A review of the Family Support Program's Food Supplement component. March 2010

xviiiConclusion of USAID MARKETS Livelihood and Household Nutrition Activity Assessment, op cit.

xixChemonics June 2011: Lessons Learned from MARKETS Program, Bridges to MARKETS 2

xx# of vulnerable children receiving food supplements; # of OVC caregivers receiving microenterprise and homestead gardening training to meet income and nutritional needs; # of people trained on household nutrition and diet diversity in conjunction with microenterprise training

xxi The FNSP included the MicroEnterprise Fundamentals™ course to improve income, productivity and nutrition. Between June and September 2010, training was rolled out to 4,083 participants and an impact assessment was conducted with 400 trainees.

xxii Most notably 98% of the sample surveyed said that business income had increased and 95% were saving more as a result of the MARKETS trainings. Behavioral changes also resulted: Increased ability to invest more in food for the household, save more, and increased empowerment within the household as evidenced by increased decision making and management of household assets.^{xxii}