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USAID MARKETS PROJECT ASSESSMENT



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MARKETS PROJECT ASSESSMENT

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ACRONYMS

AGOA	African Growth and Opportunity Act
APSF	Agricultural Policy Support Facility
BPO	Business Promotion Office
CAADP	Comprehensive Africa Agricultural Development Program
CAFAN	Catfish Farmers Association of Nigeria
CIDA	Canadian International Development Agency
CMG	Corridor Management Group
DEC	Development Exchange Center
ECOWAS	Economic Community of West African States
FEPSAN	Fertilizer Suppliers Association of Nigeria
FNSP	Family Nutritional Support Program
GDA	Global Development Alliance
GDA	Global Development Alliance
GFSR	Global Food Security Response
GON	Government of Nigeria
GTZ	German Development Agency
HIV/AIDS	Human Immunodeficiency Virus / Acquired Immunodeficiency Syndrome
ICRISAT	International Crop Research Institute for the Semi-Arid Tropics
IFAD	International Fund for Agricultural Development
IFDC	International Fertilizer Development Center
IFPRI	International Food Policy Research Institute
IITA	International Institute of Tropical Agriculture
IRs	Intermediate Results
LAPO	Lift Above Poverty Organization

ACRONYMS

LGA	Local Government Area
LOP	Life of Project
M&E	Monitoring and Evaluation
MARKETS	Maximizing Agricultural Revenue and Key Enterprises in Targeted Sites Project
MEMS	Monitoring, Evaluation, and Management Services project
NACRDB	National Agricultural Cooperative and Rural Development Bank
NAEC	National Agriculture Enterprise Curriculum
NGOs	Non-government Organizations
OVC	Orphans and vulnerable children
PEPFAR	President's Emergency Plan for AIDS Relief
PMP	Performance Monitoring Plan
PIRS	Performance Indicator Reference Sheets
POF	Purchase Order Finance
PRISMS	Promoting Improved and Sustainable MSME Financial Services Project
PrOpCom	Promoting Pro-Poor Opportunities through Commodity and Service Markets
RF	Results Framework
RKC	Revised Kyoto Convention
SAF	Special Activities Fund
SO	Strategic Objective
SOW	Statement of Work
STTA	Short-term technical assistance
USAID	United States Agency for International Development
USG	United States Government
WASA	West Africa Seed Alliance
WCO	World Customs Organization
WOCCU	World Organization of Cooperative Credit Unions

EXECUTIVE SUMMARY

MARKETS is a five-year, \$52 million project designed and funded by USAID/Nigeria. Its objective is to increase livelihoods and food security through a private-sector led, demand-driven approach based on strengthening agricultural value chains. The MARKETS project was initiated under USAID's Strategic Objective of *Improved Livelihoods in Selected Areas*. It also is intended to support the high priority, Agency-wide objective of *Global Food Security*.

This report presents an assessment of MARKETS conducted for USAID/Nigeria by Sibley International LLC (with subcontractor Crimson Capital) under a GBTI II IQC task order during December 2009 – February 2010.

MARKETS is designed to expand economic opportunities in the agriculture sector in Nigeria by increasing the extent of commercialized agriculture (reducing reliance on subsistence-only farming), increasing the reliance on value-added processing, and increasing farm productivity. MARKETS applies a demand-driven, value chain approach starting with agro-processors to create a more easily accessed market for small-scale producers. The value chains of interest are those for agricultural commodities produced predominately by small farmers and for which there are existing markets with good potential for growth. The project also supports the effective functioning of the individual commodity value chains by working with entities and individuals to reduce impediments to the process.

The overall intent of MARKETS is to create in Nigeria a viable, sustainable agro-industry that provides ample employment opportunities and equitable revenues all along the value chain for agricultural commodities. Initially, MARKETS focused on the value chains for rice, dairy, aquaculture, sorghum, and cowpea. Over time, the support provided by MARKETS has grown to include assistance to the value chains associated with: fertilizer supply and technology development; seed development; and additional crops including sesame and cassava. More recently, as a result of updated USAID priorities and the benefits of additional resources, the project activities have expanded into supporting trade and transport corridor development, advising on agriculture policy, training farmers and assisting irrigation projects.

MARKETS is implemented for USAID by Chemonics International as the prime contractor. Subcontractors to Chemonics include: International Fertilizer Development Center; Land O'Lakes; International Institute of Tropical Agriculture; West Africa Seed Alliance; International Crop Research Institute for the Semi-Arid Tropics; International Food Policy Research Institute; Nathan Associates; Making Cents; and Winrock International.

Assessment Objectives and Team Composition

The assessment of MARKETS examined the extent to which the project is making meaningful progress in improving livelihoods and food security, and its impact the extent to which MARKETS on economic growth in Nigeria as evidenced by several key indicators.

The Assessment Team consisted of: Tom Easterling, Team Leader and M&E Specialist; Najja Bracey, Institutional Specialist; and Igbekele Ajibefun, Agro-Economist. Home Office support was provided by David Snelbecker, Engagement Manager; Alex Kharabadze, Project Coordinator; and Upasana Khadka and Leslie Root, Research Interns. The work was undertaken under USAID Contract EEM-I-00-07-00003, Task Order 4.

Summary of Achievements

The main achievements of the MARKETS Project are the following:

- 1. Increased incomes.** The project has had a positive and substantial impact on the incomes of farmers participating in value chains.
- 2. Created sustainable agro-industries.** The agro-industries for producing and processing rice, sorghum, sesame, and fish feed for aquaculture have achieved enough capacity and demand to be sustainable.
- 3. Increased access to agricultural credit.** MARKETS has introduced to small farmers a successful model for crop financing through the linkages provided to agro-processors through the producers associations.
- 4. Transferred technology.** Project-sponsored training, demonstration, and technical assistance in crop production has increased the capabilities and outputs of small farmers producing the targeted crops. The MARKETS Special Activities Fund (SAF) has sponsored several innovative processes and equipment for storing and milling cowpea, producing smoked fish, and parboiling rice.
- 5. Promoted farming as a business.** Many small farmers now see farming as a commercial business, not just a source of subsistence for the family. This is a significant change in mindset in a group with limited previous exposure to agribusiness and opportunities for small-holder farms.
- 6. Introduced new development concepts.** The use of a value chain approach to agribusiness development was a new concept in development approaches in Nigeria when MARKETS began 2005. Value chain concepts are now being applied by several other donors in Nigeria including IFAD, GTZ, and the World Bank.
- 7. Generated support for related programs.** The USAID/MARKETS “brand” has a highly favorable image and has been a positive influence in working with state governments and industrial organizations of Nigeria.
- 8. Organized rural women’s groups.** MARKETS successfully organized women’s groups as suppliers to the value chains, particularly in the Northern Belt where women are often less visible in economic activities.

Potential Vulnerabilities and Future Design Considerations

MARKETS is a successful project, although some weaknesses and vulnerabilities exist. Follow-on activities to the current MARKETS Project could benefit from incorporating features that would help assure the continued expansion and success of MARKETS by reducing its vulnerability to potential changes in current economic and operating conditions.

1. Dependence on agro-processors. Much of the success of MARKETS is due to the participation of its major partners, the agro-processors, and their role in the commodity value chain. Outreach to small farmers has been effective largely because it has been in the self-interest of the agro-processors to increase their intake of some agricultural commodities. Typically, agro-processors prefer to grow their own commodity inputs on company farms under controlled conditions, or to source their inputs from a limited number of large farmers. This strategy provides more effective control of the quality of inputs and reduces the farm-gate to storage costs. MARKETS has benefited from the willingness of existing processors, many with sincere interests in the future for small farmers, to work with and support the objectives of the Project. It has been expected that additional processors would

enter the market and help maintain a competitive commodities market. There is some risk to the future success of MARKETS in expecting that existing processors will maintain their current policies toward small farmers through difficult market or other economic conditions. As a hedge, working through the producers MARKETS should support adding new and expanding existing regional collection and transport centers. These centers should be responsible for effective quality control and bulk transport to agro-processors as a way of reducing the responsibility (and costs) of these functions to the processors.

2. Importance of access to credit. Access to credit is important to expanding the successes achieved by MARKETS to date and, certainly, even to maintaining current levels of participation.¹ Future efforts of MARKETS should support creating alternatives to the banks (and the processors in some instances) as sources of crop financing. Again, working through the producers and their associations MARKETS might support the creation of rural credit facilities and self-help loan funds.

3. Government distortions and impediments. Intervention by national and state governments in the agricultural input supply chains is detrimental to MARKETS efforts to increase crop production at the small-farmer level. In particular, fertilizer subsidies for small farmers and government interference in the fertilizer supply chain have hampered the development of private suppliers. Small farmers consistently reported that government involvement in the fertilizer market made it too expensive for them to purchase at planting time. Future activities of MARKETS might examine the potential for supporting national-level policy reforms to remedy these impediments.

Sources of Quantitative Assessment

MARKETS tracks more than 30 indicators in its monitoring and evaluation system. Results of the seven most important indicators (specified in the Project's contract) are presented below.

Indicator	2006	2007	2008	2009
Number of clients networked into MARKETS	18,972	77,063	92,841	191,121
Number of new jobs created	3355	33,664	44,767	149,300
Amount of gross revenue generated	\$1.01M	\$33.21M	\$83.25M	\$130.64M
Income from selected commodities & products	\$8.7M	\$25.38M	\$56.24	\$65.88M
Change in the productivity of selected commodities				Rice 247% Sorghum 90% Sesame 25% Cowpea 250%
Change in volume of bulk commodities processed into value-added products				Rice: 99.5% Sorghum: 6.3%
Amount of finance credit leveraged for farmers and agro-processors	\$1.81M	\$8.96M	\$30.21M	\$50.66M
Number of bank and MFI loans facilitated by MARKETS from financial institutions	14,844	48,345	143,858	227,162

¹ For example, in 2008 a combination of drought and floods substantially reduced the rice yield of many of Olam Nigeria's rice farmers. The bank that had extended credit to the affected farmers was able to recover only 65 percent of its outstanding debt during the 2008 harvest season. As a result, the bank refused to offer credit for the subsequent season. Olam Nigeria made up some of the credit shortfall, but the number of participating rice farmers declined substantially in the following year.

These numbers were compiled and aggregated by the Assessment Team, drawing entirely upon data collected by MARKETS as a source. The Assessment Team made an effort to verify the accuracy of these numbers, and did not find any obvious discrepancies. However, the Assessment Team identified several opportunities for expanding and increasing the rigor of the monitoring effort to capture and convey Project results.

Table I below summarizes the results annually for MARKETS key indicators since the project started. All indicators reflect positive results and show that USAID support and MARKETS activities have had an impressive impact on the state of the agricultural sector in Nigeria. For example, the number of clients reached by MARKETS has grown more than 10 times since the start of the Project in 2006. Gross revenues generated and net income have increased by factors of 13 and 8, respectively. Almost 150,000 jobs have been created, as defined by the monitoring system. Additionally, MARKETS assistance has resulted in increased agricultural productivity. The increases in crop yields indicate that training in best practices in agricultural production has been effective. MARKETS has also done well in leveraging credit—there has been a 30-fold increase in the value of loans, and 15-fold increase in the number of loans that MARKETS has facilitated. This means that many farmers have been able to access finance when they were previously unable to. USAID can only expect that in its last year MARKETS will produce even more impressive results.

Sources of Qualitative Assessment

The Sibley Assessment Team read and analyzed a diverse array of sources related to agricultural development, crop production, food security, agricultural policy, trade policy and other pertinent background materials pertinent to MARKETS and the Nigeria agriculture sector. Prior to departing for Nigeria, the Assessment Team met with and interviewed key USAID officials and Chemonics staff in Washington, DC. In Nigeria the Team met with, in addition to MARKETS staff, project beneficiaries and partners, including agribusinesses, farmers groups, policy groups and think tanks, women's groups, input suppliers, and staff members of NGOs and international development organizations. The Team conducted focus groups around the country with MARKETS beneficiaries that included farmers groups, women farmers groups, and representatives of supply chain and agribusinesses.

Summary of recommendations for future activities

1. Continue applying the MARKETS model. USAID should continue to follow the model underlying MARKETS using a demand-driven, value chain approach starting with agro-processors to provide a market for small-scale producers.

2. Renew efforts to bring more small farmers into the program. Demand for commodities continues to exceed small farmer production. While MARKETS has been quite successful in gaining small farmer participation, future activities should include renewed efforts to attract additional small farm producers. This is likely to require conducting additional training courses in production techniques in addition to promotion efforts. Many of the new entrant candidates are in the more remote areas and, for this reason, future MARKETS activities should address the difficulties of access to inputs and transportation in these areas for commodity inputs through increased local production. New entrants into the program should receive all the support and advantages of participation that existing small producers enjoy.

3. Encourage indigenous agro-processors. While there is considerable demand for processed food products in Nigeria, the local capacity for food processing is not adequate to meet demand. There is a need for small- to medium-scale food processors to serve local markets. Future MARKETS

activities should complement the present linkage with large agro-processors with linkages that will promote the growth of an indigenous agro-processing industry.

4. Provide continued support to private input providers. Small farmers in Nigeria have limited access to good-quality input supplies, including fertilizer, farm chemicals and improved seed. MARKETS has been successfully working with IFDC to increase access to fertilizer among small rural farmers, and is working with other partners to promote improved access to and increased use of optimal seed varieties. Future projects should continue to support and strengthen a national network of private input suppliers as this is critical to the goal of improved yields and increased income so essential to food security in Nigeria.

5. Support comprehensive food security activities—policy, trade, finance, workforce development and employment services, and social safety nets. Future MARKETS and other USAID/Nigeria-funded activities should support a comprehensive program of food security initiatives, focused both on increasing agricultural production, creating employment and raising incomes. The essential elements of this comprehensive approach include:

Policy – Policy reform is required to promote agricultural growth and investment and increase Nigeria’s competitiveness in global markets. At the farm level, government interference in the marketing of fertilizer and other inputs has impacted adversely access to these important inputs. These should be addressed through policy dialogue and similar approaches with the national government.

Trade – Creating a more favorable climate for trade within the region and globally will do a lot to improve food security by lowering the cost of agricultural inputs and raising demand for Nigerian products. Future activities should include trade issues as part of the policy dialogue with the National Government.

Finance – Future projects should place even more support than current efforts on increasing access to rural credit. As mentioned previously, access to credit along with agro-processor participation are critical to gaining the small farmer participation intended in MARKETS. Activities should focus on promoting a change in mindset change of commercial bank staff and overcome their bias and reluctance to extend rural credit. USAID-supported activities might include: 1) increasing field support to agricultural lending institutions to help them monitor crop production and harvests, 2) conducting campaigns to encourage loan repayments by delinquent farmers and 3) exploring innovative financing mechanisms that have worked well in other locations. Lack of credit for farmers and some input suppliers limits access to high quality seed and fertilizer. It also limits buy-back opportunities for growers and input suppliers: an additional constraint on MARKETS activities.

Workforce development and employment services – Improved job skills and employment services, and a better functioning labor market will help to increase incomes in all sectors of the economy. Future USAID-funded efforts might include expanding the current level of support to rural workforce development².

² The topic of youth unemployment is an important one to USAID, and the assessment team discussed this in a number of meetings with USAID and MARKETS beneficiaries during the team’s field visits. The team questioned agribusinesses’ about their outreach programs to youth via internships and job skills development programs. Olam Nigeria in particular mentioned that the type of skills that it would seek in prospective staff are lacking in university graduates. In discussions with Nigeria Breweries, the team learned that it had an industrial internship program that was in high demand and consistently had waiting lists. However it is not clear how many of those applicants and participants in the program came in with a developed skill set that is applicable to the industry. Other agribusinesses mentioned that universities are not always

6. Focus on women and youth. Value chain actors should be encouraged to bring women and young people into the economic mainstream. Ways to do this include: supporting youth internship programs; supporting youth economic groups; and continuing to organize and prepare more women's groups as suppliers of agricultural commodities. All of these activities are regarded as appropriate for future MARKETS activities.

7. Improve donor coordination. MARKETS provides USAID/Nigeria with a useful vehicle for promoting improved coordination of donor activities in the Nigeria agricultural and other sectors. The accomplishments of the Project and its positive image throughout Nigeria can be used effectively in forging a more unified approach toward assistance to the agricultural sector, and economic growth in general in Nigeria. To capitalize on MARKETS, USAID/Nigeria might convene a series of meetings with representatives of relevant international assistance agencies. The purpose of the meetings is to reach agreement on the goals for a collaborative effort. Subsequent sessions would then establish an overall strategy; and a plan for implementing the coordinated approach by the participating agencies.

connected to the needs to the private sector and don't necessarily prepare students with technical and managerial skills needed in the agribusiness industry. Therefore, the team mentions workforce development as a suggested future activity either in MARKETS 2 or independently in an entirely different project that could leverage resources from MARKETS 2. However, in the design of such a program or activity, an assessment needs to be done to explore questions such as: 1) What other donors are doing in this area of youth employment and workforce development and what has been the impact; 2) What other businesses have industrial development programs (like Nigeria Breweries) and what is the demand/supply relationship between the number of spots available in the program versus the number of students applying; and 3) What are universities and technical schools' linkages to the private sector and to what extent do their interactions and understanding of private sector needs influence curriculum.

I. MARKETS PROJECT BACKGROUND

A. MARKETS – 2005 THROUGH 2008

MARKETS was initiated as a US\$24 million, five-year project to support the USAID/Nigeria's Strategic Objective (SO) 12 - *Improved Livelihoods in Selected Areas*. A contract to implement the Project was awarded to Chemonics International with a start date of June 23, 2005 and an end date of June 22, 2010. MARKETS is designed to expand economic opportunities in the agriculture sector in Nigeria by increasing the extent of commercialized agriculture (reducing reliance on subsistence-only farming), increasing the reliance on value-added processing, and increasing farm productivity. MARKETS applies a demand-driven, value chain approach starting with agro-processors to create more easily accessed markets for small-scale producers. The value chains of interest are those for agricultural commodities produced predominately by small farmers and for which there are existing markets with good potential for growth. The Project also supports the effective functioning of the individual commodity value chains by working with entities and individuals to reduce impediments to the process.

With support provided by MARKETS, the goal is a well-functioning agro-industry of profitable processors providing employment in Nigeria and improving the livelihoods of their producers. Initially, MARKETS focused on expanding the markets for, and smallholder outputs of agricultural products that included rice, dairy, aquaculture, sorghum, and cowpea.

The team assembled initially by Chemonics International to implement MARKETS included four subcontractors:

International Fertilizer Development Center (IFDC) is responsible for coordinating input supply and distribution for value chain activities through private sector agro-dealers. Long-term staff members are assigned to the Business Promotion Offices (BPOs) and to the Abuja main office.

Land O'Lakes is responsible for providing short-term technical assistance (STTA) to the dairy value chain. Land O'Lakes' work focuses on linking small-scale dairy farmers to commercial dairy processors, and to improving their farming skills and outputs..

International Institute of Tropical Agriculture (ITA) is providing experience and specialists in agricultural marketing, agro-processing, and cooperative development. In particular, it assists in developing small-scale producers' capacities to meet commercial demand through more effective farmer associations.

Winrock International works with producers seeking additional supplies of agricultural products that can be provided by growers supported by MARKETS. It seeks to establish firm commitments from producers to rely on smallholder production in selected products to the maximum extent possible. Winrock staff is embedded with Chemonics personnel in Abuja Headquarters and in the BPOs.

B. MARKETS – 2009 to Present

Following a major increase in funding to USAID/Nigeria for food security in December 2008, the MARKETS budget was increased to US \$51.7 million. Also, the Project end date was extended to December 26, 2010 so as to include the output from the 2010 harvest of different agricultural products in MARKETS performance reporting

The increase in funding made it possible for USAID/Nigeria and MARKETS to shift from concerns with maintaining the scale of activities to meet budget requirements to deciding which MARKETS activities should be scaled up in order to meet the higher targets that accompanied the increase in Project funding. This involved determining the nature of the expanded activities and the additional levels of effort required to achieve the revised targets. As a result these deliberations, value chain activities were expanded through three different programs:

Fertilizer supply and technology development: The role of the International Fertilizer Development Center (IFDC) was expanded to include capacity building of the Fertilizer Producers and Suppliers Association (FEPSAN) of Nigeria, Specifically, IFDC worked with the Association to improve its technology and knowledge base of deep placement of urea fertilizer for rice; to increase its use of soil testing kits, and to expand its highly successful pilot voucher program for government-subsidized fertilizer.

Seed development: The International Crop Research Institute for the Semi-Arid Tropics (ICRISAT), in collaboration with the West Africa Seed Alliance (WASA) was given the lead in developing improved seed for the targeted crops. In addition to applying available technology to improving crop yields through better seed, efforts were included to increase the availability and use of fertilizer by small farmers..

Expansion into new crops: The value chains included in MARKETS originally were expanded to include the value chains for cassava, maize, and tentatively, cacao.

Four initiatives were added to MARKETS:

Trade and Transport Corridor Development: This initiative includes three elements: 1) Transport Corridors, 2) Customs Modernization, and 3) Trade Policy and Capacity Building. Nathan Associates Inc. was added to the Chemonics International team in the second quarter of 2009 to provide the regional planning and trade policy expertise required by the this initiative but not budgeted in the initial MARKETS effort.

Support for Agriculture Policy: International Food Policy Research Institute was added to the Chemonics team to support the increased emphasis on policy analysis and dialogue made possible by the increase in MARKETS funding. Its work supports activities related to seed, fertilizer, and irrigation.

With the studies and other support provided by IFPRI, MARKETS is able to provide more assistance than initially anticipated to Nigeria Ministry of Agriculture and Water Resources and to the National Food Reserve Agency. Issues being addressed include regional policies related to the Comprehensive Africa Agricultural Development Program (CAADP) and the Economic Community of West African States (ECOWAS).

Farmer Training: MARKETS has established a partnership with the World Bank-funded FADAMA III program to provide agribusiness training to more than 200,000 smallholder farmers and processors nationwide. Under the MOU between MARKETS and FADAMA, MARKETS will train 575 FADAMA-supported facilitators and staff through training workshops that began in October 2009. Follow-on training of farmers began in January 2010 and will continue throughout the 2010 until the end date of MARKETS in December..

Irrigation: As a new initiative MARKETS is undertaking an effort to devise a strategy to promote investment in rehabilitating and developing new irrigations schemes. The intent is to select potentially viable irrigation schemes and develop an investment approach that will provide for restoring the

schemes through some combination of national, donor and sweat equity assistance. Several irrigation areas in fertile areas were developed previously by GON but have since fallen into disuse or disrepair. Properly functioning irrigation systems will enable farmers to increase rice yields in particular, and it is expected that this product will be added to the current value chains.

TABLE I-I MARKETS Products by Region¹			
Commodity	Northern Belt	Central Belt	Southern Belt
Aquaculture		X	X
Dairy (suspended)		X	
Cassava		X	X
Cowpea	X	X	
Maize	X	X	
Rice		X	X
Sesame	X	X	
Sorghum	X		

Source: MARKETS field staff

C.GEOGRAPHIC DISTRIBUTION OF MARKETS INTERVENTIONS

Table I-I shows the agricultural regions and products currently being supported by MARKETS. In the Central Belt, MARKETS supports all the major commodities with the exception of Sorghum. The Project expects to expand into maize in the Northern Belt in 2010

D.MARKETS IMPLEMENTATION MILESTONES

The following is a listing of the major events that have affected project implementation:

1. June 23, 2005 - MARKETS Project launched
2. January 2006 - partnership with Olam Nigeria Limited Industries for rice value chain development
3. January-March 2006 – carried out emergency initiative to contain avian influenza
4. August 2006 – USAID/PRISMS Project closed and resources integrated into MARKETS - US \$3.5 million
5. May 2007 – biodiversity supplemental funding US \$983,000
6. April 2008 - initiated sesame program
7. June 2008 - Closure of dairy value chain activity
8. September 2008 – initiated PEPFAR nutrition program for HIV/AIDS orphans and vulnerable children – US \$3.8 million
9. December 2008 – project modified as a result of Global Food Security Response (GFSR) funding – US \$23.0 million

¹ A map of the regions MARKETS is active in is included in Annex II.

10. March 2009 – Initiated cassava program
11. February 2010 – initiated maize program
12. December 26, 2010 – MARKETS scheduled end date

E. MARKETS PERFORMANCE MONITORING PLAN

The original MARKETS Project objective was to improve rural livelihoods by expanding economic opportunities in the agricultural sector. The Results Framework (RF) for project monitoring specified three intermediate results (IRs) that provided a structure for project implementation in support of the project objective.

INTERMEDIATE RESULTS

1. Increased Market-driven Employment Opportunities
2. Increased Agricultural Productivity and Marketing
3. Increased Commercial Viability of Micro, Small and Medium Enterprises

A total of 26 indicators were established under the initial Performance Monitoring Plan (PMP), related to the project objective and the three intermediate results.

A table showing the PMP indicators and targets for the initial MARKETS project is shown in Table I in Annex I.

The additional funding for MARKETS was accompanied by an increased emphasis on food security in the Project's results indicators and targets. A total of 32 indicators are included in the Performance Monitoring Plan for MARKETS for 2009 and 2010. Table 2 in Annex I shows the current PMP indicators and targets.

II. IMPACT ANALYSIS

A. VALUE CHAIN – BENEFICIARIES

The MARKETS Project works to create and strengthen the value chains for priority agricultural products by linking small farmers capable of producing these products with “connector firms” – generally, agro-processors that are in the market for these products. By linking groups of small farmers to the agro-processors and bolstering the capabilities of the farmers to be reliable suppliers to these companies, the Project creates sustainable, commercial markets for small-scale producers.

MARKETS Project helps create and strengthen the value chains between small producers of targeted agricultural products (e.g. sesame, rice, cassava, sorghum and their end markets, which are almost exclusively agro-processors of these targeted commodities. MARKETS provides technical assistance, training, and access to production technology through producer associations comprised of groups of small farmers. The Project scans up and down the value chain to identify and help reduce constraints to producing and selling agricultural products. These instances typically include: insufficient or defective seed, inadequate supply of fertilizer and farm chemicals, and lack of credit for planting and other needs. In some instances, MARKETS assists agro-processors by facilitating their attendance at international marketing events, and through matching grants to partially fund processing innovations. MARKETS has been able to capitalize on the increasing need of large-scale processors for traditional Nigeria agricultural products typically produced by smallholders. By linking these two entities, MARKETS has helped provide a large and expanding market for the small farmers. A longer-term objective is to transform each of these commodity-specific value chains into an economically viable and sustainable

agro-industry, made up of clusters of related economic actors.

TABLE II-I. Number Of Out-Growers Supplying Targeted Commodities To Agro-Processors

Commodity	FY 2006	FY 2007	FY 2008	FY 2009
Aquaculture	415	390	250	186
Cassava	0	0	0	1,229
Cowpea	3,009	9,025	5,342	0
Dairy	16	323	242	0
Inputs	28	100	0	638
Rice	9,159	17,694	3,100	14,264
Sorghum	6,707	8,819	1,771	10,005
Sesame	0	0	5,073	5,575
Total	19,334	36,351	15,778	31,897

Source: MARKETS PMP data. The MARKETS M&E team believes that the reason for the decline from 2007 to 2008 was likely because numerical data for FY 2008 were possibly included in the results for FY 2007.

I. MARKETS' OUT-GROWERS

Table II-I shows the tally of out-growers by agricultural product for the past four years' of MARKETS support and assistance activities. Entries indicate the base group of small farmers who supply the project-sponsored agro-processors with the targeted commodities through their respective value chains.

2. MARKETS' AGRO-PROCESSORS

Table II-2 shows the agro-processor participating in MARKETS and the agricultural commodities that they purchase from small farmers. Among these agro-processors are industry leaders that had a combined business interest and corporate social responsibility sense towards small farmers. The larger processors have been effective in serving as examples and encouraging other, smaller agro-processors to participate in MARKETS.

The MARKETS Project supports two agro-processors – Olam Nigeria Limited, a subsidiary of Olam

TABLE II-2. MARKETS-Assisted Agro-Processors Purchasing Value-Chain Commodities From Small Farmers

Commodity	Agro-processor	Location (State)
Aquaculture	Azemor Agribusiness Durante Fish Industries Grand Cereals	Oyo Oyo Plateau
Cassava	Ekha-agro Matna Foods Nigeria Starch Mills Novum	Ogun Ondo Anambra Nassarawa
Cowpea	Convenient Home Foods El Bhi Ventures	Kano Niger
Rice	Olam Nigeria Limited Abakaliki Processors' Association Arewa Rice Mill (planned – 2010) Ebonyi Agro (planned – 2010) Labama Global Ventures (planned – 2010)	Benue, Kwara, Anambra Ebonyi Kano Ebonyi Kebbi
Sorghum	Aba Malting Plant (supplier to Nigeria Breweries)	Abia State
Sesame	Olam Nigeria Ltd. Magnum Associates	Kano Nasarawa

International, a large Singapore-based company, and Magnum Associates, a medium-scale sesame processing company that is owned by a Nigerian entrepreneur who recently returned to Nigeria after a business career in the United States. While Magnum is a startup company and the scale of its factory operation is considerably smaller than that of Olam Nigeria Limited, Magnum Associates appears to be an extremely well-managed company and, with the assistance of the MARKETS Project, it has obtained adequate financing to meet its needs for the intermediate term. The future for this company is bright indeed, and it should provide a growing market for its small-scale producers.

B. VALUE CHAIN COMMODITIES

I. AQUACULTURE

As described earlier, the MARKETS team works to strengthen the value chains between small farmers and their markets (the agro-processors) to ensure that these available markets for the targeted commodities are adequately served. However, unlike the other targeted commodities, there is no large-scale fish processor providing a market for small-scale fish farmers. Rather, the market for pond-reared fish is highly fragmented and consists of a myriad of small buyers. MARKETS is attempting to improve market linkages and strengthen the marketing process for the small-scale aquaculture farmers. It has approached fast food companies including UAC, Mr. Biggs, and others that might consider adding catfish and tilapia to their menus. However, promoting processed fish is a challenge because fast food

companies do not see catfish as having much appeal, and also consumers have strong preferences for fresh fish in restaurants. Other activities supported by MARKETS to improve the market for aquaculture products include:

- Helping feed millers to develop locally produced, less costly fish feed. Feed accounts for approximately 60 percent of the direct operating costs of a typical aquaculture farmer.
- Providing training in marketing in collaboration with the Farmer-to-Farmer Program, to producer associations and individual farmers.
- Helping to introduce fish drying and smoking technology to increase the shelf life and value added for cultivated fish. Smoked fish is highly demanded by Nigerian consumers, and sells for a premium price in local markets. Furthermore, under the African Growth and Opportunity Act (AGOA), there is potential for selling smoked fish in niche markets in the United States.

Currently, fish farmers sell live fish in generally small quantities to traders who move the fish quickly by public transport to Nigeria's larger cities for sale mostly by street vendors. Because, Nigerian consumers prefer live fish, the challenge for the traders is to keep the fish alive until they can be sold. This requires shipping some amount of water with the fish, tranquilizing the fish so they will become dormant and require less oxygen, and shipping the fish at night when temperatures are lower. Despite these marketing inefficiencies and handling difficulties, fish sales are brisk and farmers are able to sell all their live fish at farmgate, albeit at low prices typically.

2. COWPEA

Cowpea is one of the five agricultural crops that USAID/Nigeria initially selected for development through the MARKETS value chain program. Soon after the cowpea program began, the MARKETS team began supporting the work carried out by the International Institute for Tropical Agriculture (IITA) whose regional headquarters is located in Ibadan, Nigeria. At that time, IITA was implementing a cowpea crop improvement project funded by the Gatsby Charitable Foundation, United Kingdom, through the IITA/Gatsby Project entitled "Improved Crop-Livestock System for Enhanced Food Security and Poverty Alleviation in West Africa". MARKETS collaborated with the IITA initiative, and helped to apply the results of cowpea improvement trials with small farmers across Northern

Nigeria. As a result of the cooperative effort between IITA and MARKETS, average cowpea yields increased by 250% over traditional farming methods. However, when the IITA/Gatsby project ended in 2008, MARKETS was left without a collaborator for continuing its cowpea crop development efforts. With the realization that soybean provides more value added opportunities, and that much of the cowpea production was responding to subsidies provided by the Gatsby project rather than demand, MARKETS does not see a pressing need to support increased cowpea production.

MARKETS continues to support existing, small-scale firms processing cowpea for danwake flour and Akara, and Moi-Moi. Cowpea is a staple food in Nigeria, and the vast majority of Nigerians consume food products made from cowpea. However, the preparation of cowpea flour and other related food products has traditionally been done at the home, and requires considerable time and effort. The strategy of the agro-processors was to process dried cowpea into highly convenient, nutritional food products that require considerably less labor for preparation. While basic cowpea products are well known throughout the country, their commercial processing, packaging and marketing is a pioneering effort in Nigeria.

The MARKETS Project is currently supporting two relatively small-scale agro-processors: Convenient Home Foods of Kano, and El Bhi Ventures of Minna, Niger State. The products produced by these agro-processors are quite popular throughout Nigeria and are of excellent quality. Both companies are small-scale family businesses that are undercapitalized and need considerable hands-on support for product

marketing, new product development, and financial management. El Bhi has requested a matching grant from the project's Special Activities Fund that would permit it to obtain the equipment the company needs to diversify its product line into maize and other food products, and thereby increase its revenues. There are no large cowpea processors, working with small-scale agro-processors and this presents MARKETS with an opportunity to add value to cowpea processing and support the formation of additional agro-processors.

MARKETS might identify additional assistance it could provide to these promising start-ups within a level of effort that is consistent with cowpea demand and opportunities for value added.

3. SORGHUM

Aba Malting Plant, currently, is the the sole purchaser of sorghum grain produced by the MARKETS-supported small farmers. It buys sorghum as raw material for its own line of flavored beverages, and is the exclusive sorghum buying agent for Nigeria Breweries, a subsidiary of Heineken International, the parent company of Aba Malting Plant. Because the end grain buyer is such a large company, Aba Malting prefers to work through "wholesalers", known as regional coordinators who provide the linkage between the company's buying and assembly stations and the small farmers who grow the sorghum. The regional coordinators are private operators who link with the small farmers through their producer associations. In this case the agro-processor has no direct contact with the small-scale suppliers, and is less involved in the supply of farm inputs and the facilitation of credit than is the case for other crops such as sesame and rice.

By comparison, Guinness and Nigerian Breweries are taking more active roles. Both engage in selecting and purifying seed stock and support the development of hybrid sorghum. Improved varieties are made readily available to small farmers.

Regional coordinators typically are privately-owned seed companies and, arguably, have a stake in the sorghum seed development and distribution activities of Guinness and Nigerian Breweries, but might not be contributing much to the process. MARKETS might consider working with the regional coordinators with an eye toward improving their capacities to collect and transport sorghum to the agro-processors, but MARKETS should examine its options for supporting development of improved sorghum seed.

Demand for sorghum currently exceeds what is being supplied by small farmers. Moreover, demand for sorghum is increasing in Nigeria. This presents opportunities for MARKETS to support increased production by small farmers, but it also requires that MARKETS support research and development of improved seed varieties. Assistance to small farmers in the way of training and technology transfer is important in improving farming techniques and increasing yields, but the greatest increases in sorghum crop yields are likely to come from improved seed strains. MARKETS, should collaborate with USAID/Nigeria in determining how the Project can support improved seed development within the existing scope of the MARKETS contract.

Crop financing for small farmers supplying sorghum grain to Aba Malting is provided mostly by the Nigerian Agricultural, Cooperative and Rural Development Bank (NACRDB). The MARKETS credit team has been instrumental in facilitating these loans to the participating small farmers.

Interviews with company executives at Nigeria Breweries by the assessment team revealed that the company has considerable flexibility in sourcing grain inputs that are required for making beer. For example, the company can easily switch between local sorghum and imported barley in case of a shortage of either commodity. Furthermore, in case of a shortfall of high-quality improved sorghum grain that is provided by project-supported small producers, the fallback position of the company is to simply buy sorghum grain on local markets. In fact, company executives consider an acceptable range of

grain inputs is 30% - 70% for either sorghum or barley, although the general policy is to use around 60% sorghum grain produced locally. This policy suggests a continued strong market for sorghum.

The Nigeria Brewery's Supply Chain Manager, who is based at its Lagos brewery, pointed out that in recent years, the percentage of the brewery's total grain requirement that is supplied by project-assisted small farmers has declined. The absolute amount obtained from smallholders has actually increased, but it has decreased as a percentage of the total supplied from all sources. Demand for beer products has grown and the resulting increase in production inputs has outpaced the capability of the project-supported small farmers to step up their output levels. Overall, the company is buying some 30,000 tons of raw sorghum grain annually from the sponsored small farmers, and its total annual demand amounts to 65,000 tons. As a response to this, MARKETS developed a GDA with Nigerian Breweries in order to maximize the number of smallholder farmers networked in the supply chain of the Aba Malting Plant and also to increase agricultural productivity on smallholders fields. Through this collaboration, MARKETS found that seed quality was the major constraint to improving yields and increasing farmer productivity and this was a motivating factor for MARKETS to promote the development of hybrid sorghum seed for Nigerian smallholders. This shortfall also creates an opportunity for MARKETS, in addition to its efforts to develop improved sorghum varieties, to network several thousand additional small farmers in future activities who could be immediately brought into the sorghum value chain.

4. SESAME

Sesame is the only export crop of the targeted commodities. It is an ideal crop for small farmers in the northern areas of the country because some varieties produce relatively high yields under very dry conditions. Other varieties respond extremely well to the climate and soils found in Nigeria's Central Belt. While crop yields are considerably lower than rice, for example, in recent years the international prices for sesame have increased substantially so that a ton of sesame sells currently for about four times the price of polished rice. In a meeting between the assessment team and Olam Nigeria Limited's Zone Manager for Kano, the Manager expressed his appreciation for the support

MARKETS is providing to his company to increase the amount of sesame that is available for processing for export. However, he would like to see a considerable increase in factory throughput. He believes that he could easily expand the number of out-growers this year by an additional 8,000 farmers, and would like continued MARKETS support to achieve this goal. Based upon the performance of Olam Nigeria to date, additional assistance to the company seems appropriate and an effective way to increase farmer participation.

5. RICE

On average, Nigeria's annual rice consumption is 32 kilograms per person, with annual consumption in urban areas amounting to an average of 47 kilograms per capita. Nigeria is one of the largest producers of rice in Africa, while also being one of the largest importers of rice in the world – Nigeria produces approximately two million metric tons of milled rice annually, yet imports an additional three million tons. Rice is produced in 32 of Nigeria's states, but most production comes from six states in the Middle Belt. With increasing incomes in Nigeria, the largest growth market for rice is for high quality, long-



grained parboiled rice consumed mostly by urban residents. Thailand is a major supplier of the long-grained rice preferred by most Nigerians.

The major player in the rice sub-sector is Olam Nigeria Limited, and this company is also a major MARKETS partner in the rice value chain. Olam Nigeria Limited is not only a major importer of rice into Nigeria, but also actively supports domestic rice production. Olam Nigeria Limited has focused on the urban consumer of high-quality parboiled rice as its marketing strategy, and is aggressively developing this market. Olam Nigeria Limited's development strategy for the rice supply chain is similar to that for sesame. As with its sesame program, Olam Nigeria Limited would like to see greater quantities of its processing needs filled by MARKETS-assisted producers. In its Benue factory alone, Olam Nigeria Limited has sufficient capacity to produce rice from an additional 18,000 small rice farmers.

As shown by the list of rice processors in Table 5 above, the MARKETS team plans to increase the number of project-supported agro-processors by adding three additional medium-scale processors as partners in the states of Kano, Kebi and Ebonyi during the final year of project activity.

C. VALUE CHAIN INDICATORS

The table showing all the current performance indicators and targets for MARKETS is presented in Annex I, Table 2. The indicators that correspond to the work carried out under the different commodity value chains are indicators 1 – 17, 24, and 30-32.

Despite a slow start on achieving some of the required targets, the MARKETS Project team is confident that its current programs will ensure that all the LOP targets will be met. The following is a brief commentary on each of the contractual indicators and targets:

i. Number of clients networked into the project.

This is defined as *the number of persons – small scale producers, micro-entrepreneurs, traders, and others involved in the market chain – assisted directly by MARKETS or linked to MARKETS with only one degree of separation.*

As shown by Table II-3 the required LOP target is 1,200,000 people networked. As of the end of MARKETS A, a total of 92,841 persons had been directly affected by the project as value chain suppliers, credit recipients, or through training. At the end of fiscal year 2009, the total number of clients networked had increased to 395,000. This number includes a factor for “copy-cat” farmers who are not direct beneficiaries of the project, but who engage in good agricultural practices as a result of their contacts with those farmers who are direct beneficiaries. Currently, the MARKETS team is projecting that it will slightly exceed the requirement to network 1.2 million people by the end of the MARKETS Project. The activities now underway that contribute to this objective are shown in Table 8.

The National Agriculture Enterprise Curriculum (NAEC) is the MARKETS – sponsored farmer training program that is being carried out nationwide by Making Cents (a subcontractor to Chemonics) in collaboration with with the World Bank-funded FADAMA Project. The out-growers are the cumulative total number of farmers who are counted each harvest season that supply the agro-processors with agricultural commodities.

TABLE II-3. Contractual Indicators And Targets						
Indicator		MARKETS			MARKETS	
		Cumulative thru 12/31/2008			Thru	
No	Name	Target	Actual	FY 2008 Actual	LOP Target	LOP Expected
1	Number of clients networked into the project	312	92.9	397.9	1,200,000	1,215,000
2	Number of new jobs created	60,000	49,479	100,538	160,000	175,538
3	Amount of gross revenue generated	\$120M	\$89.5 M	\$130.5M	\$260M	\$260M
4	Net income generated	\$60 M	\$56.9M	\$65.9M	\$85M	\$85M
5	Change in productivity of selected commodities:					
5a	Rice	40%	246%		100%	250%
5b	Sorghum	40%	90%		100%	100%
5c	Cassava	40%	N/A		100%	100%
5d	Sesame	40%	25%		100%	25%
5e	Cowpea	40%	250%		N/A	N/A
16	Change in volume of bulk commodities processed into value-added products:					
16a	Rice	30%	99%		30%	30%
16b	Sorghum	30%	26%		30%	30%
30	Amount of finance credit leveraged for farmers and agro-processors	\$15M	\$36.6M	\$50.7M	\$57M	\$63.7M

Their number is estimated to be 200,000 by the end of the project. Copycat farmers, as described earlier, are those farmers who copy the agricultural practices of the project's direct beneficiaries. A factor of 3 was applied to direct beneficiaries one time early in 2009 to determine the number of indirect, "copycat" farmers. A copycat survey is currently underway to thoroughly account for farmers who have indirectly benefited from MARKETS support.

This factor is presently being verified through statistical sampling techniques. The IFDC fertilizer voucher program will expand considerably during 2010, and by the end of the project it is planned that some 400,000 farmers will have benefited from this initiative. FNSP refers to those individuals who benefit from the MARKETS Family Nutritional Support Program which includes the PEPFAR-funded food supplements for OVCs and training for OVC caregivers on the MEF curriculum which includes modules on home gardening. Finally, the number of project-facilitated loans for small farmers and other

beneficiaries is projected to be at 200,000 by the end of the MARKETS Project. The cumulative total number of individuals networked through these activities is projected to be 1,215,000 by project end. Table II-4 shows the gender and youth status of persons networked by agricultural products. Youth is defined as any individual, male or female, between the ages of 18 and 30 years. This table was derived from data corresponding to fiscal year 2009.

ii. Number of new jobs created. The second contractual indicator is the number of jobs created. This is defined as *the number of 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.

As of the end of 2008, approximately 49,000 jobs had been generated. As of the end of the 2009 Fiscal Year, employment generation had increased to slightly more than 100,000. The MARKETS team is projecting that the number of jobs created by the end of the project will exceed the required target.

Table II-5 provides a comparison of jobs created within the different commodity value chains. These data are cumulative for fiscal years 2006 – 2009. As shown by the table, the vast majority of the jobs are created in the rice and sorghum value chains.

Table II-4. Characteristics of Networked Individuals by Commodity Type			
Commodity	Male	Female	Youth
Cassava	82.0%	18.0%	17.0%
Rice	89.0%	11.0%	27.0%
Sesame	92.4%	7.6%	7.0%
Sorghum	91.0%	9.0%	0.0%

Source: Calculated from 2009 sample data from MARKETS PMP database

iii. Amount of gross revenue generated. The

third indicator is the amount of revenue generated. This is defined as *gross revenue of selected agricultural commodities, products, and services at the last point of the market chain, received by on- and off-farm enterprises that are assisted by MARKETS.* Essentially, this is the sales revenue earned by agro-processors, farmers, and input suppliers. The project team is projecting to achieve the LOP target of US \$260 million.²

² A rough estimate of gross revenue earned to date by MARKETS clients (minus copycats) suggests that incomes might have increased by a factor of 10 in some instances. When compared with USAID expenditures through MARKETS on value chain activities, USAID’s return on investment would be about 410% to date. While the current estimate of \$130 million revenue and projected total revenue of \$260 million generated by MARKETS is impressive, it was not possible to separate reliably revenues earned by farmers and revenues earned by agro-processors and others in the value chains. This is because: 1) revenue data are not sufficiently disaggregated by MARKETS and 2) baseline data are not available for the various project participants at the time the MARKETS Project began. It is quite likely agro-processors in aggregate earned considerably more revenue than farmers in aggregate, but this does not mean the impact on small farmers was not significant. Indeed, the assessment team collected anecdotal evidence on increases in gross revenue and earnings experienced by small farmers through informal focus groups indicating general agreement by farmers on what are regarded as substantial increases. Determining Net Income Generated is hampered by the same issues as Gross Revenue calculations.

TABLE II-5. Number And Percentage Of Jobs Created By Commodity**FY2006 - FY2009**

	Sorghum	Cowpea	Cassava	Sesame	Rice	Aqua-culture	Dairy	Total
No.	37,467	11,753	0	616	51,774	1,592	17	100,538
Percentage	37%	11%	0%	0.6%	51%	1.5%	.02%	100%

iv. Net income generated. Net income is contractual indicator No. 4. It is defined as *the gross revenue generated from sales by USAID beneficiaries minus their operating costs*. For crops, this is measured at the farm level and for processed products at the agro-processor level. The project team is projecting that the required target will be achieved by project end.

Unfortunately, the assessment team was not able to break out the amount of net income generated by small farmers relative to agro-processors. It would provide an excellent measure of impact on the poorest. However, during the assessment team's field visits numerous farmers stated that their incomes have dramatically improved since they became MARKETS' beneficiaries. The major factor behind increased farmer incomes is increased yields due to improved agricultural practices and better crop varieties. Furthermore, because the farmers can bypass local traders and sell their crops directly to the agro-processors at high-market prices, the farmers receive what is traditionally the "middleman's fee" for purchasing their products. Farmers now also have the advantage of being able to track market prices through price surveys conducted several times during the harvest season.

v. Change in productivity of selected commodities. Increased crop productivity is an important indicator. For crops, it is normally expressed in production per hectare, but under the MARKETS PMP, this indicator specifies a percentage increase over the baseline yield. This indicator was initially measured as a lump sum percentage covering all crops. However, under MARKETS GFSR, the targeted increase in crop yields has been determined for each targeted commodity until the end of the project. As shown by Table 6 above, the required yield increase over the LOP for all commodities 100%. MARKETS has already exceeded this target for rice and cowpea and the team is projecting that it will achieve the required targets for all commodities by the Table II-7 compares the yield increases for four different commodities grown by project-sponsored farmers through FY 2009. The greatest percentage improvement is for cowpea and rice, both with yields at two-and-one-half times the baseline amount.

Rice: The greatest absolute improvement is reported for rice – from a baseline yield of 1.5 tons per hectare to an average yield of 5.2 tons per hectare. This is approximately the same productivity

Table II-6 Percentage Increase in Productivity Over Baseline for Four Commodities

Commodity	Baseline (tons/ha.)	End FY 2009 (tons/ha.)	Increase
Cowpea	0.4	1.4	250%
Rice	1.5	5.3	246%
Sesame	0.8	1.0	25%
Sorghum	1.0	1.9	20%

as that reported for Vietnam, which is the world's second largest rice exporter. The total annual rice production in Nigeria is approximately 2 million metric tons, whereas total rice consumption exceeds 5 million MT per year, corresponding to more than 30 kilograms per capita. Should it be possible to increase rice yields nationwide by a similar percentage increase as experienced by MARKETS-supported rice farmers (246%), then Nigeria would become fully self-sufficient in rice production.

Sesame: Commercial sesame production in Nigeria is carried out mostly by small-scale farmers. While there are no accurate records of national production, industry leaders estimate that Nigeria’s annual production of sesame seed is around 100,000 metric tons, of which approximately 65,000 metric tons is exported. At recent international price levels of US \$1,200 per metric ton, sesame exports presently contribute an amount of roughly US \$78 million to Nigeria’ export earnings. Should the increased crop yield obtained by MARKETS-supported sesame farmers (25%) be achieved on a more universal basis, sesame exports would increase to around 80,000 tons and foreign exchange earnings would likely approach US \$100 million.

Sorghum: With regard to sorghum, MARKETS reports that well adapted sorghum hybrids are helping to push average yields up from 2 MT/ha. to about 3.8 MT/ha, thereby increasing farm income from less than 20,000 Naira/ha to over 45,000 Naira/ha. At the current currency exchange rate, this translates into increased farm income amounting to US \$166 per hectare. According to USAID/FEWSNET, Nigeria devoted about 7.3 million hectares of land to sorghum production in 2006. Should all sorghum farmers in Nigeria achieve the percentage increase in crop yields reported by MARKETS-assisted farmers (90%), the increase in farm income nationwide would amount to a impressive US1.2 billion.

vi. Change in volume of bulk commodities. This is defined as the *change in volume of bulk commodities processed into value-added products*, without specifying the targeted amounts for the different commodities. Also, the amounts processed do not relate to the commodities sold by small farmers through the value chains to the agro-processors. Only data for rice and sorghum are available. The targeted increase for these two commodities is 30%. The MARKETS team is projecting that these two LOP targets will be met by the project end.

vii. Amount of finance credit leveraged for farmers and agro-processors. This is defined as the *aggregate value of loans received by MARKETS-assisted producer groups and enterprises*. As before, the project management team is projecting that the team will achieve the life-of-project target of US \$57 million in leveraged credit. The assessment team was not able to extract the data needed to determine the number and the total amount of loans corresponding to small farmers .Data was provided for LAPO and DEC loans only. Table II-7 shows indicators and targets for credit facilitation.

TABLE II-7. Indicators And Targets For Credit Facilitation						
Indicator		MARKETS through 12/31/2008			MARKETS by 12/26/2011 (est.)	
No.	Name	Target	Actual	FY 2009 Actual	LOP Target	LOP Plan
31	Number of bank and MFI loans facilitated by MARKETS from financial institutions	25,750	170,919	83,304	180,000	299,162
32	Number of wholesales loans facilitated	5	15	3	14	18

D. TRADE AND TRANSPORT CORRIDOR DEVELOPMENT

Under its subcontract to Chemonics International, Nathan Associates, Inc. is responsible for supporting trade and transport corridor development through three activities:

- Nathan is working to improve the flow of goods along the Lagos – Kano – Niger corridor, a 1,149 kilometer highway linking the port at Lagos with the Niger border. Nathan’s work has been first, to identify and quantify major bottlenecks on the corridor and thereby determine the highest priority areas for reform. Nathan is now in the process of helping to create a public-private Corridor Management Group (CMG) to oversee the operations of the corridor, and will technically assist its operations. Finally, with CMG as a forum, over the remainder of the MARKETS Project, Nathan will design policy, operational, institutional and infrastructure reform proposals for key corridor issues, and will support stakeholder advocacy to remove transport bottlenecks.
- Nathan is pursuing a three-pronged approach for customs modernization that includes the following activities: a) Strengthen the legal basis for customs modernization by replacing Nigeria's Customs and Excise Management Act of 1958 with legislation that incorporates international trade agreements including the Revised Kyoto Convention (RKC) and World Customs Organization’s (WCO’s) SAFE Framework of standards; b) work to redefine the functions and responsibilities of multiple Nigerian government agencies and business actors that are involved in customs operations in order to streamline customs administration, and c) encourage the adoption of Customs best practices for improved customs processes and also to demonstrate the positive effect of transparency and predictability in terms of efficiency gains for the Nigerian Customs Service.
- Nathan is implementing a Trade Policy and Capacity Building activity through three separate initiatives: 1) conducting technical analyses and institutional development initiatives that reinforce the links between trade policy issues and food security in the country; 2) incorporating existing information, talent and organizations in Nigeria within the process of policy analysis and dialogue as a means for laying the groundwork for longer-term trade capacity building and trade policy reform, and c) supporting the private sector to formulate and undertake initiatives for more transparent and consistent trade policies in Nigeria, especially through public-private dialogue with policy makers.

Nigeria’s trade policy regime is quite restrictive, and is distorted by high tariffs and numerous non-tariff barriers, including outright bans on the imports of a considerable number of products. Protectionism is evident particularly with respect to agricultural products, as exemplified by bans on imports of cassava, vegetable oil and poultry, and excessively high duties on rice. As a result, Nigeria’s trade regime is judged as nearly twice as restrictive as other ECOWAS countries. While high import duties are meant to stimulate domestic production, they impose a high cost on the consumers of imported food products. Contrarily, Nigeria has not achieved self-sufficiency in the protected industries, and Nigeria products are not competitive in these international commodities markets.

The first two elements of Nathan’s work to develop trade and transport corridors are proactive, and are designed to achieve positive outcomes in terms of improved customs services and transport across Nigeria. Because they are proactive, these activities are likely to yield positive results. Nathan’s approach to implementing the third element – trade policy – is less proactive and is described as “quiet diplomacy”. It seeks to influence policy by providing information to government and to stakeholders, and then waiting for their reaction. This might prove effective, but it is likely to show results less rapidly than the corridor and customs activities.

TABLE II-8. Trade And Transport Corridor Development Indicators And Targets

Indicator		MARKETS Through 12/31/2008		MARKETS By 12/26/2010 (est.)	
		Target	Actual	LOP Target	LOP Plan
18	Analysis of transport corridor conducted	N/A	N/A	Milestone	Completed
19	Stages for the establishment of a corridor management group completed	N/A	N/A	Milestone	Completed
20	Number of corridor improvement projects prepared	N/A	N/A	2	2
21	Stages completed in drafting NCS service act in accordance with International standards	N/A	N/A	Milestone	Completed
22	Number of trade and transport policy interventions conducted	N/A	N/A	2	2
23	Number of institutional capacity building activities conducted	N/A	N/A	2	2

It is the view of the Assessment Team that a more proactive approach might be required to have any positive effect on Nigeria's trade policy. Specifically, the trade component could focus on those policies that hamper the development of the targeted value chains into viable and sustainable agribusinesses. These include not only tariffs on food imports, but also obstacles to trade that limit the availability of seed, fertilizer, and farm chemicals in local markets. Organizing presentations, including simulations of trade policy effects, are likely to demonstrate the advantages of policy reforms more quickly than "quiet diplomacy" and increase the benefits of the value chains being promoted by MARKETS.

The results expected of Chemonics International with the support provided by its subcontractor, Nathan Associates Inc. are shown in Table II-8. These results were not included in the original MARKETS contract requirements but were added when additional funding was provided and Nathan was added to the Chemonics team in early 2009.

E. POLICY ANALYSIS

Under its sub-contract with MARKETS, International Food Policy Research Institute (IFPRI) analyzes those policies related to agricultural sector growth and provides information to policy makers to guide national policies. IFPRI provides policy briefs to the MARKETS staff, Nigerian Government Officials, and stakeholders. IFPRI works in three different policy areas:

TABLE II-9. IFPRI Policy Analysis Indicators And Targets

Indicator		MARKETS Through 12/31/2008		MARKETS By End of 2010	
No.	Name	Target	Actual	LOP Target	LOP Plan
25	Increased public expenditures and investments in the agricultural sector	N/A	N/A	20%	20%
26	Number of Individuals whose policy analysis capabilities have improved	N/A	N/A	13	13
27	Number of sound policies identified for the agricultural input sector	N/A	N/A	7	7
28	Number of country-owned agricultural policy strategies developed	N/A	N/A	1	1
29	Number of policy briefs and papers produced and disseminated, as follows:	0	0	10	10
29a	Number of research-based briefs produced	N/A	N/A	4	N/A
29b	Number of literature-based briefs produced	N/A	N/A	4	N/A
29c	Number of papers written	N/A	N/A	5	N/A
29d	Aggregate Number of Briefs disseminated	N/A	N/A	500	N/A
29e	Aggregate Number of papers disseminated	N/A	N/A	300	N/A
29f	No. of Participants in IFPRI-organized dissemination events	N/A	N/A	50	N/A

1. *Fertilizer sector policy:* IFPRI helps to shape fertilizer policy by analyzing the fertilizer supply chains in a number of states, including the state's own fertilizer procurement and distribution practices. Fertilizer distribution is analyzed in terms of the availability, timeliness of delivery, appropriateness of type and quantity of fertilizer available, the price to the farmer, and the economic strength of private distributors. Furthermore, IFPRI is conducting an analysis of Nigeria's extension service as it relates to fertilizer use.
2. *Irrigation Investment and Policy:* In the final year of MARKETS, IFPRI is to conduct a comprehensive study on the present use and availability of irrigation systems in Nigeria, along with an analysis of the management, performance, key constraints and potential for growth of irrigation in the country. MARKETS will use this information to engage public and private stakeholders on the potentials for irrigation investment. The information can also provide input into federal and state agricultural policy.
3. *Seed sector policy:* The MARKETS Project supports the development of a sustainable seed Nigeria by introducing seed policies and regulations to foster an increase in the supply of quality seeds. IFPRI conducts the analyses that support policy formulation.

IFPRI is charged with meeting or exceeding several targets that are included in its performance management plan, as shown in the Table II-9. It is making good progress toward these targets and it is expected that it will meet all but one (Indicator No. 25). It should be noted that these targets are concerned entirely with policy analyses and publishing the results in related briefs and papers. Any resulting changes in policy are not monitored however. While it is possible that some of the policy

changes resulting from IFPRI efforts will result in increased expenditure of public funds in agriculture, the connection between this target and the research capacity building activities of IFPRI. The Assessment Team suggests that USAID/Nigeria might discuss with Chemonics (and IFPRI) the appropriateness of this target, or a possible restatement of the intent of the target associated with Indicator No. 25.

An approach to policy change that has proven successful in other African countries relies on analyses, conceptualization, public-private dialogue, and assistance in drafting legislation. These activities are embodied in a thirteen-step process, as shown in Table II-10. Under this scenario, project support would end at step No. 10, since the final three steps are entirely within the mandate of national government. It is a process that might be considered for Nigeria as a way of gaining the most benefit from the analyses and other efforts of IFPRI.

F. FAMILY NUTRITIONAL SUPPORT PROGRAM

The PEPFAR-funded Family Nutritional Support Program (FNSP) started in September 2008 and is scheduled to end in December 2010. It provides nutritional supplements to orphans and vulnerable children (OVC) and provides support for income-generating activities to OVC caregivers. It seeks to improve the socio-economic status of HIV/AIDS-affected households in Nigeria. FNSP has dual objectives: The first objective addresses immediate nutritional needs of orphans and vulnerable children. Through partnerships with Nigerian food processing firms, FNSP supports community-based and clinic-based feeding programs. It formulates, produces and distributes fortified, nutritious, locally-available dietary supplements as ready-to-prepare packaged products. These products go to 22,500 of the most vulnerable OVC per year – an estimated 45,000 over the life of the program – with a particular focus on OVSs under five years of age.

FNSP's second objective is to improve nutrition and income levels of 15,000 OVC households through a longer-term program of promoting home gardening and other income generating activities. Using a specially designed curriculum that focuses on building capacity of beneficiaries to improve their incomes, FNSP is training OVC caregivers in homestead gardening techniques and business skills, including business planning, market information, record-keeping and financial planning.

No specific targets were established for FNSP under the MARKETS PMP, however, the results from FNSP activities will be captured in the future using the following indicators: *Number of clients networked*, *Number of people trained in ST agricultural activity*, and/or *Number of people trained in private sector development training*.

In the scale of nutrition and food security needs in Nigeria, the FNSP is a small, albeit important, effort. Nutritional challenges facing Nigeria, especially for children under five, include malnutrition, Vitamin A deficiencies, iron deficiency anemia and iodine deficiency disorders. Despite improvements in food supplies in recent years, high malnutrition rates persist. The most recent (2006) FAO estimates indicate a 38.5 percent prevalence of stunting and a 9.3 percent prevalence of wasting. The PEPFAR-FNSP Program was incorporated into MARKETS because, at the time, USAID/Nigeria did not have another implementing mechanism HIV/AIDS-related activities program. In addition, as a part of an agriculture sector activity, FNSP could help to improve farm skills and incomes while adding to the nutritional intake of a vulnerable population. The Assessment Team agrees that this offers advantages over a health program approach focused more on treatment than developing a degree of self-sufficiency for the target population.

Regarding the homestead farming activity, an assessment was done that found a real need and desire by communities to acquire cross-sector business skills training that could be applied to diverse enterprises. Homestead farming was included originally in the income generating activity

modules to support family nutrition. However, the overwhelming percentage of OVC caretaker beneficiaries are women, giving the MARKETS project an opportunity to impact this demographic.

TABLE II-10. Example of Steps in Facilitating Policy Reform

Step No.	Activity	Step No.	Activity
1	Identify the problem	7	Hold public-private dialogue forum
2	Outline relevant issues in a	8	Revise bill or regulation
3	Government agency review	9	Submit draft to Ministry
4	Hold public-private dialogue forum	10	Submit to Cabinet
5	Prepare draft bill or regulation	11	Submit to Parliament
6	Best practice review of draft	12	Implement legislation

G. CROSS-CUTTING ISSUES:

Access to Credit

The difficulty of obtaining credit is a severe constraint to agricultural development in Nigeria, especially for MARKETS -like programs requiring credit for medium-term financing of equipment and short-term credit to finance seed and fertilizer purchases at planting time.

The underlying problems are well documented in many countries and through many economic growth and food security

assistance programs:

- Small farmers, and rural households in general, are seen as lacking credit-worthiness;
- Agricultural loans are seen as high risk because of the uncertainties of the weather and market prices;
- It is generally impossible for small farmers to meet the collateral requirements that borrowers in other sectors have less difficulty meeting;
- Bank financing terms requiring repayment at regularly scheduled intervals do not recognize the farmers' cash flow requirements through the growing season and harvesting;
- Most small farmers lack knowledge and understanding of the importance to a lender of business planning, loan application preparation, and typical banking requirements.

MARKETS is addressing these issues by facilitating crop credit for individual small farmers, and in some cases for groups of small farmers by helping to arrange agreements between commercial banks and agro-processing companies, and the producer organizations whose members serve as suppliers to the agro-processor. The major features of these arrangements are as follows:

- Under a typical arrangement, the bank finances up to 75% of the credit needs of a group of small farmers. Agro-processors and the participating farmers finance the remaining 25% in roughly



equal proportions. Loan proceeds are used by the agro-processor to buy fertilizer and agro-chemicals required by the small farmers for crop production, and in some cases, to pay the cost of harvest labor.

- Small farmers receive the loan value in-kind; they do not receive cash. At the end of the season, the agro-processor retains funds from the payment for crop purchases made to the participating farmers. The amounts retained correspond to the value of the inputs received by the individual farmers, at the beginning of the season, plus bank interest charges. Loan repayments are made by the agro-processor, directly to the bank, on behalf of each participating farmer.

MARKETS has worked closely with financial institutions such as NACRDB to facilitate credit to project-sponsored small farmers, especially for sorghum and cassava cultivation. While NACRDB has proven to be a reliable partner, it is under-capitalized and has a poor loan recovery rate. Because it historically lent at below-market interest rates it is not financially viable over the long term without continued government support and adversely affects credit markets.

MARKETS provides technical assistance (TA) and support for institutional strengthening to NACRDB and micro-lending organizations such as the Lift Above Poverty Organization (LAPO) and the Development Exchange Center (DEC) to enhance their capabilities to provide rural finance, and facilitated wholesale loans to these financial institutions to help them expand their loan portfolios. It also sponsors the attendance of selected bank executives (from DEC, LAPO and NACRDB) to local and international seminars and training programs as a means to enhance their skills as commercial bankers.

The MARKETS Project is to be congratulated for its considerable efforts to overcome the agricultural credit constraint. However, over the longer term, even more robust efforts will be needed to further reduce the constraints that limit the availability of credit to small farmers. Additional methods such as the following should also be considered:

- Future initiatives should focus on additional efforts to educate commercial bank staff in rural credit practices and on building capacity to monitor and lower the perceived risk in rural finance. These efforts might include conducting field visits days and supporting investment analyses on project-related agricultural investment opportunities.
- In a manner similar to the technical support and training provided to small farmers through the outreach activities of various agro-industries, future MARKETS-related activities might include support to lending institutions build capacity (and confidence) in monitoring production and harvest progress by smallholding borrowers. Future activities might also include working directly with producer organizations to facilitate and encourage loan repayments by individual farmers.

- USAID/Nigeria might also review the performance of its banking partners in Nigeria participating in the USAID Development Credit Authority (DCA). Soon after the MARKETS Project began, USAID awarded the DCA loan guarantee facility for agriculture investments to Sky Bank and PHP bank. To date, neither bank has used the guarantees provided by DCA to expand its agricultural loan portfolio – at least, not for loans to project-sponsored small producers. A reasonable solution might be to extend the loan guarantee facility to First Bank and Union Bank as both have a prior history in agricultural finance.

- Following the successful experiences of other countries with non-traditional rural finance schemes, USAID/Nigeria might explore a few of these alternative mechanisms on a pilot basis. One proven approach, but not tried in recent history in Nigeria is to support development of rural savings and loan (S&L) associations.



Several international organizations, including the US-based World Organization of Cooperative Credit Unions (WOCCU) has considerable experience in carrying out these initiatives. It might also include supporting financial institutions in developing and launching asset-based lending products to provide short-term working capital to targeted MARKETS value chains. The World Bank has provided loan funds to capitalize rural credit facilities in a number of countries in Africa and Asia.

The MARKETS Project supports two medium-scale micro-lending banks that have evolved from financial NGOs to become commercial banks. These are the Lift Above Poverty Organization (LAPO), and the Development Exchange Center (DEC). Table II-11 shows the cumulative number and the cumulative amount of micro-loans provided by these two organizations to small producers and traders over the two-year period from 2008 to 2009.

TABLE II-11. Summary Results For Lapo And Dec Combined Micro-Loan Portfolio (2008 – 2009)

Type of Borrower	Cumulative Number of Loans	Cumulative Loan Amounts (\$000)	Average Loan Size (US\$)
Producers	6,702	\$5,211	\$777
Traders and	172,115	\$36,486	\$211
Total	178,817	\$41,697	\$233

LAPO loan portfolio – 93% female borrowers, DEC loan portfolio – 100% female borrowers. Repayment rate for female borrowers over the two year period – 100%, Source: Special study conducted by MARKETS M&E team.

A sample of the beneficiaries showed that 93% of the total number of LAPO borrowers was women. For DEC, all the borrowers were women. The loan repayment rate for female borrowers over the indicated period was 100%.

Gender

Women in Nigeria, women comprise a majority portion of the agricultural labor force (estimates range from 60 – 80 percent, depending on the region) and produce two-thirds of the country's food crops. Women fill a variety of roles on the farm, including planting, weeding, applying fertilizer,

processing (in the case of cowpea), and sometimes harvesting. Men generally do the harder work of land preparation, harvesting, and threshing. In most cases it is the men who are active in the marketing of their produce. Of the different value chains supported by MARKETS, the highest on-farm participation rates of women are in cowpea and rice production. Many of the new jobs created in aquaculture are being filled by women, particularly in fish processing.

In general, the majority of the farmers trained in good agricultural practices through extension services are males, particularly in Northern Nigeria. While farmer cooperatives and associations in much of the Middle Belt and Southern Nigeria consist of both men and women members, in the North women prefer to form their own cooperatives. MARKETS has made considerable progress in networking women clients into project activities although this was not included specifically in the original contractual objectives. This success has included even the more remote areas where women are isolated and outreach is difficult.

The following is a summary of MARKETS key achievements in gender support:

- MARKETS assisted in organizing and strengthening women's farmer groups in the Northern States of Kano and Kaduna. When MARKETS began, there was only one all-female cooperative in Nigeria. It had received support from the World Bank's FADAMA project. Currently, largely due to MARKETS support there are about 32 groups comprised of 800 women farmers in the Garko Local Government District alone. Before the cooperatives were established, women mostly worked as individual farmers with no outside assistance. Now, some of the women's

groups participate in the World Bank's FADAMA 3 Project as well. Leaders of these groups represent their members' concerns at local government meetings, participate in price-setting meetings with agro-processors representatives and are the conduit for distributing loans to the farmer members of the cooperatives. This MARKETS achievement provides a best practice that should be advertised and disseminated.

- MARKETS provides training to women's groups that is specific to women's roles on and off the farm. For example, women are heavily involved in the difficult and time-consuming process of processing cowpea into akara for home consumption. Akara is a deep-fried bean cake that is popular as a breakfast food throughout Nigeria. Initially, MARKETS focused on improving cowpea production techniques, but adjusted its focus and began training women in more efficient ways to process cowpea when it became clear that there is a limited market for cowpea outside the local market.
- Women have benefited from project training in best practices and modernized farming techniques provided through the MARKETS POP (package of practices) training program.
- MARKETS has provided considerable assistance to women to help them access micro-loans. Women's groups at all MARKETS activity locations have an excellent reputation for their high loan repayment rate. Most groups have a record of 100% on-time, and even early, repayment.
- Under its PEPFAR-FNSP component, MARKETS is developing a pilot program to provide training in the fundamentals of micro-enterprise management, including saving, business and financial planning, budgeting household vs. business expenses, and means for valuation of household assets. This pilot project will also promote household food security by helping women make choices that will increase their incomes and improve nutrition. This pilot initiative will specifically target the project-supported women's groups in Kano and Kaduna states, as well as some 15,000 OVC caregivers, of which more than 80% are women.

Donor Coordination

- Donor coordination, it has often been said, is like the weather – everybody talks about it but little is done about it. Despite the usual institutional isolationism, MARKETS has made real progress in its efforts to reach out to other international assistance agencies in Nigeria. In promoting collaboration in efforts to improve food security and rural livelihoods MARKETS was successful in gaining agreement with the World Bank-funded FADAMA project to collaborate on a training program for farmers. MARKETS is collaborating with the DFID-funded PROPCOM project in the rice value chain. Taking advantage of the success that the current MARKETS has had in cooperating with other assistance agency-supported activities, future MARKETS efforts should include an attempt to forge an alliance of assistance organizations with the explicit intent of coordinating the selection and implementation of food security and related development activities. A organized effort by the assistance agencies can yield considerable influence in discussion with the Government of Nigeria and is likely to bring more attention (and action) to policy reform needed for improved food security. Once the principle of improved coordination is established the GoN might see the value of taking the lead on coordinating donor and other assistance agency assistance.

Several opportunities for realizing the benefits of donor coordination and cooperation already exist. Opportunities for future MARKETS activities include the following:

- The World Bank is planning to lend US\$250 million for the FADAMA III Project, with project contributions totaling US\$200 million from Nigeria's National and State Governments. FADAMA III is being implemented in all 32 states in Nigeria. MARKETS could ally with FADAMA III to provide training and technology transfer to small farmers in those states where MARKETS currently is operating. MARKETS has a memorandum of understanding (MOU) with

the FADAMA project to implement training in package of practices (POP) and NAEC to FADAMA's network of farmers. It might be relatively easy and, certainly good sense, to expand the agreement to support value chain development in other areas.

- The Canadian International Development Agency (CIDA) is implementing the Agricultural Policy Support Facility (APSF) throughout Nigeria. APSF provides support to agricultural sector growth and policy reform. So does MARKETS. Cooperation of the two project efforts is likely to yield more and better results than parallel, but solo, efforts by the two project activities.
- DFID representatives have expressed interest in collaborating on monitoring and evaluation tasks related to the Promoting Pro-Poor Opportunities in Commodity and Service Markets (PrOpCom) Project, which is also being implemented by Chemonics International. PrOpCom promotes private-sector – led private sector led agricultural growth as a means of reducing poverty. The intent is to share best practices and lessons learned in collecting and analyzing impact data.
- The success of MARKETS and its “brand name” recognition in the development assistance community gives USAID/Nigeria an advantage in taking the lead in bringing about more for effective donor coordination. At present, the emphasis in donor coordination is on sharing information, but not necessarily on coordinating assistance delivery. Greater emphasis on coordinating assistance activities can be more efficient for the cooperating organizations and by dovetailing particular strengths of the organizations achieve results that are greater than the sum of individual efforts.

On a less ambitious level, given the proliferation of relatively new, “copy-cat” programs by numerous donors and Non-government Organizations (NGOs) that are now engaged in value chain development for food crops in Nigeria, future MARKETS activities should include setting up a Value Chain Development Committee for each commodity. This would provide a forum for like-minded donors and NGOs to discuss and subsequently coordinate their activities and either work on different parts of the same value chain, or work on a specific value chain in adjacent geographical areas.

There is not enough time left in the contract life of the current MARKETS project to act on these opportunities, but they should be part of the action plan of USAID/Nigeria and future MARKETS-related activities. Every one of these opportunities, if realized, can have a significant impact on food security in Nigeria. Moreover, the process of getting development assistance agencies to coordinate efforts is likely to provide a best practice for the entire international assistance community.

Sustainability

Of the many initiatives implemented by the MARKETS project, i.e., HIV/AIDS-nutrition, transport corridor improvement, policy research, support for biodiversity, and value chain development, only value chain development meets the litmus test for sustainability. That is, in the opinion of the Assessment Team, value chains are the only outputs of MARKETS that hold the promise, and not universally, of carrying on without external financial or technical support after the MARKETS Project ends.

The other components of MARKETS are services that are quite beneficial in contributing to food security and livelihoods, but lack the capacity to generate self-sustaining funding. External financial and, to a lesser extent, technical support will be required to continue these services. However, MARKETS has met its primary objectives of assisting in the creation of value chains for targeted agricultural products, and supporting these value chains until they become sustainable, stand-alone agro-industries. The value chains include not just farmers, middlemen and agro-processors but a full panoply of contributors in a well-functioning agro-industry, the universities, research institutes and government agencies.

Sustainability of Commodity Value Chains

The Assessment Team's view of the prospects for sustainability of the individual value chains assisted by MARKETS to date, is described below:

- Dairy – The dairy initiative was suspended midway through the MARKETS Project. While numerous production improvements were adopted by the project-assisted dairy farmers and are still in use, the dairy value chain *per se* is not sustainable currently.
- Rice – The rice value chain is sustainable under its present structure. If MARKETS' assistance ends, rice production by small farmers and crop financing by commercial banks are likely to continue. To be sustainable, however, rice production must continue to be of high quality so as to retain the domestic market. There is certainly room for increased production and an opportunity to gain a portion, or all, of the current imported rice market.
- Sorghum – Similar situation and market potential as for rice. However, without continued MARKETS support for the medium term, small farmers are not likely to achieve the increases in crop production needed to satisfy the current demand for sorghum from the beer products industry. As with rice, maintaining the quality of sorghum is important to retaining the current share of the market and discouraging beer producers from increasing their reliance on imported grains..
- Sesame – Similar comment as that for rice. However, given its shorter history of assistance under MARKETS, medium- to long-term support will be required before this value chain can be expected to sustain on its own.
- Cowpea – The sustainability of this value chain is questionable at present because of the small scale of production and demand for the product. The crop appears destined for local consumption only and requiring extensive processing the cost of which is not economically justified by the low demand for the product. MARKETS might continue assisting and, perhaps expand its assistance, the two small processors of cowpea for the next 2-3 years. At the end of this time, the potential for sustainability of the product value chain should be evident.
 - Aquaculture – The work of the MARKETS Project has primarily been to assist feed millers to develop and improve fish feed that is sold as inputs to fish farmers. This supply chain is entirely sustainable.
 - Maize – This is a new commodity to be supported by the MARKETS Project. While this product shows great promise, it will likely require at least 2 – 3 seasons of intense support to become sustainable.
 - Cassava - Similar comment as that for maize.



While the assessment team believes that four of these commodity chains are sustainable, the team is not recommending that USAID withdraw its support from them. In all cases the corresponding agro-processors have considerable idle processing capacity due to lack of input commodities. For example, in the case of sorghum produced by project-sponsored small farmers to Nigerian Breweries, the percentage of the brewery's sorghum requirements filled by the MARKETS program has actually declined in recent years – the increasing demand for commodity inputs by the brewery has outpaced the capability of the MARKETS Program to provide sorghum to the brewery. A concerted

effort is needed not only to fill the idle processing capacity of the targeted agro-industries, but also to replace the low-quality agricultural commodities that the agro-processors now purchase on local markets.

Several agro-processors and intermediaries interviewed by the assessment team believe that the MARKETS model will be sustainable in the long run because, as they stated, “the program has changed the thinking of farmers on how they market their products,” and this gives the value chain operators confidence for the future (even for those input suppliers and other businesses that have not yet turned a considerable profit). While these operators have a long-term vision, they believe that there will be a continuing need for the intermediate term for training and to help facilitate relationships that build trust among the participants in the respective value chains.

MARKETS has selected as implementing partners major agro-industries, most are subsidiaries of foreign companies. While this strategy has provided quick results in increasing agricultural output and the livelihoods of small farmers, there are some risks involved in the present arrangements:

- The geographical areas where the project operates and the commodities being processed depend on the needs of the agro-processor. In some cases, the processor requires commodities that are not included on the list crops targeted by MARKETS and it is not able to support that particular commodity. The result is confusing to farmers and, in some instances, might be a lost opportunity to promote a sustainable value chain and provide additional farmer income.
- To a considerable extent, the small farmer outreach program depends on the enlightened self-interest of the agro-processors (e.g., a strong belief in concepts such as corporate social responsibility). Management changes within the agro-processing company, a change in its business strategy, or even a change in its geographic focus could force an agro-processor to withdraw from its partnership with MARKETS.
- In the best of times, dealing with large numbers of small farmers is problematic. In general, agro-processors much prefer to work with smaller numbers of larger contract growers than with thousands of small farmers. The producer groups are vital in their importance in providing a quality product and reducing the number of people that agro-processors have to deal with to obtain inputs.

Some of this risk is reduced if, in future MARKETS-related activities, USAID/Nigeria supports growth of a domestic agro-processing industry while still continuing to rely on the larger, foreign owned agro-processors for the foreseeable future. The Assessment Team acknowledges that developing a local processing industry for targeted products is likely to be more difficult than anything MARKETS has taken on to date, but it could be a major factor in increasing food security in Nigeria. The experience with cowpea products provides some indication of the challenges that might arise in trying to promote a local processing industry on a multi-commodity basis.

III. AREAS OF MAJOR IMPACT

In addition to the quantitative impact that was described earlier through the analysis of PMP data, there are a considerable number of areas where the MARKETS Project is making a major impact through results that are not easily quantifiable. Here is where the assessment team tells the story behind the numbers. Important areas of activity where the MARKETS Project is having an identified impact that cannot be measured numerically are the following:

1. Impact on rural areas with greatest poverty: Drylands and drought-resistant crops such as sesame and sorghum are largely grown in Nigeria's drier areas that also have the deepest rural poverty. By demonstrating how production yields of these drylands crops can be increased through more effective agricultural practices, MARKETS has provided a means for improving livelihoods in these areas of extreme poverty. Anecdotal examples of increased incomes and improved lives were given verbally to the assessment team during several focus group interviews with farmers associations and cooperatives.

2. Increased rural incomes: This was the purpose of MARKETS – A, and it continues to be an important element of the food security initiative under MARKETS GFSR. By providing reliable, stable markets for small farmers and helping them to improve the productivity of the targeted commodities they produce, the project has had a substantial impact on the incomes of the farmers that participate in the respective value chains.

3. Impact on food security: Through the combination of increased incomes, better farming practices and training in farming as a business, the MARKETS Project has had a highly positive impact on food security in Nigeria.

3. Creation of sustainable agro-industries: As described in a previous section of this report, the assessment team believes that the agro-industries for producing and processing rice, sorghum, sesame, and fish feed for aquaculture are now sustainable, while those for cowpea, maize, and cassava will be sustainable within 2 – 3 years, with continued project support. The successful development of these agro-industries will continue to provide jobs, investments, and improved livelihood of small farmers; and will positively contribute to Nigeria's food security in the years ahead.

4. Agricultural credit: The MARKETS implementation team has introduced a successful model that provides crop financing to small farmers who are linked to agro-processors through their respective producer associations. This is an extremely important development for the entire population of project-sponsored small producers. Perhaps more important, however, this model can be replicated throughout the entire agricultural sector for the benefit of greater numbers of small farmers.

5. Technology transfer: Through project-sponsored training, demonstration, and technical assistance in crop production, the capabilities of small farmers who produce the targeted crops are greatly enhanced. Not only have small-scale producers been exposed to the technology for improved crop production, but also the availability of credit has provided the financial means for these producers to utilize these new technologies. Furthermore, the MARKETS Special Activities Fund (SAF) has sponsored several innovative processes and equipment for storing and milling cowpeas, producing smoked fish, and parboiling rice.

6. Farming as a business: A considerable number of project-sponsored small farmers interviewed by the assessment team over the course of this study expressed their appreciation for the assistance provided by MARKETS to help them see farming as a commercial business, instead of merely as a means for family subsistence. This represents an awakening for thousands of project beneficiaries. It was also reported to the assessment team that in some cases, in light of the improved profitability from commercial farming ventures, that young people are returning to the family farm from urban locations.

7. The introduction of new development concepts: The use of value chains was a new development concept in Nigeria when MARKETS began 2005. After their introduction, value chain concepts are now being used by several other donors, including IFAD, GTZ, and the World Bank.

8. Providing legitimacy for related programs: The USAID/MARKETS name has a highly favorable image and carries a considerable amount of prestige within the different state governments and industrial organizations of Nigeria. For example, when Olam Nigeria Limited decided to expand its rice out-grower program into Kwara State, the State Governor enthusiastically endorsed the proposal once he learned that it would be supported by USAID through the MARKETS Project.

9. Organizing rural women's groups: MARKETS has made a considerable effort to organize women's groups, particularly in the Northern Belt, as suppliers to the value chains. For example, the MARKETS BPO office in Kano State has organized some 32 women's groups as sorghum suppliers to the Aba Malting Plant.

IV. VULNERABILITIES IN MARKETS' APPROACH

MARKETS is a successful project, although some weaknesses and vulnerabilities exist. Follow-on activities to the current MARKETS Project could benefit from incorporating features that would help assure the continued expansion and success of MARKETS by reducing its vulnerability to potential changes in current economic and operating conditions.

Technical Approach Issues

Challenge 1. Dependence on agro-processors: Much of the success of MARKETS is due to the participation of its major partners, the agro-processors, and their role in the commodity value chain. Outreach to small farmers has been effective largely because it has been in the self-interest of the agro-processors to increase their intake of some agricultural commodities. Typically, agro-processors prefer to grow their own commodity inputs on company farms under controlled conditions, or to source their inputs from a limited number of large farmers. This strategy provides more effective control of the quality of inputs and reduces the farm-gate to storage costs. MARKETS has benefited from the willingness of existing processors, many with sincere interests in the future for small farmers, to work with and support the objectives of the Project. It has been expected that additional processors would enter the market and help maintain a competitive commodities market. There is some risk to the future success of MARKETS in expecting that existing processors will maintain their current policies toward small farmers through difficult market or other economic conditions. As a hedge, working through the producers MARKETS should support adding new and expanding existing regional collection and transport centers. These centers should be responsible for effective quality control and bulk transport to agro-processors as a way of reducing the responsibility (and costs) of these functions to the processors.

Challenge 3. Importance of access to credit: Access to credit is important to expanding the successes achieved by MARKETS to date and, certainly, even to maintaining current levels of participation.³ Future efforts of MARKETS should support creating alternatives to the banks (and the processors in some instances) as sources of crop financing. Again, working through the producers and their associations MARKETS might support the creation of rural credit facilities and self-help loan funds.

Challenge 4. Government distortions and impediments: Intervention by national and state governments in the agricultural input supply chains is detrimental to MARKETS efforts to increase crop production at the small-farmer level. In particular, fertilizer subsidies for small farmers and government interference in the fertilizer supply chain have hampered the development of private suppliers. Small farmers consistently reported that government involvement in the fertilizer market made it too expensive for them to purchase at planting time. Future activities of MARKETS might examine the potential for supporting national-level policy reforms to remedy these impediments.

³ For example, in 2008 a combination of drought and floods substantially reduced the rice yield of many of Olam Nigeria's rice farmers. The bank that had extended credit to the affected farmers was able to recover only 65 percent of its outstanding debt during the 2008 harvest season. As a result, the bank refused to offer credit for the subsequent season. Olam Nigeria made up some of the credit shortfall, but the number of participating rice farmers declined substantially in the following year.

V. CONCLUSIONS AND RECOMMENDATIONS

Overall conclusions

The MARKETS Project is a highly effective development tool that provides improved livelihood for participating farm families, and increased food security through productivity enhancements leading to increased food production. USAID is getting a good return on its investment. It is recommended that **USAID continue its support of value chain activities that enhance food security and improve the livelihoods of the poorest immediately upon completion of the current MARKETS Project.** Depending on whether the source of new project funding is Economic Growth or Food Security, the purpose of the new initiative should be to improve rural livelihoods and to enhance food security through market-led farm productivity improvements leading to increased amounts of food produced in Nigeria, and increased net income at the small farmer level. The current MARKETS Project approach shows a great deal of potential for addressing the challenges and vulnerabilities in the current project. This section presents our Team's recommendations for future opportunities and improvements to the MARKETS model in Nigeria. These opportunities to improve and build on what MARKETS has already achieved could be expected to be included in the follow-on project.

Market demand for the targeted agricultural products

Recommendation: *Step up support to producers.* Demand for commodities continues to exceed small farmer production. While MARKETS has been quite successful in gaining small farmer participation, future activities should include renewed efforts to attract additional small farm producers. This is likely to require conducting additional training courses in production techniques in addition to promotion efforts. Many of the new entrant candidates are in the more remote areas and, for this reason, future MARKETS activities should address the difficulties of access to inputs and transportation in these areas for commodity inputs through increased local production. New entrants into the program should receive all the support and advantages of participation that existing small producers enjoy.

Indigenous food processing capability

Recommendation: *Encourage indigenous agro-processors.* While there is considerable demand for processed food products in Nigeria, the local capacity for food processing is not adequate to meet demand. There is a need for small- to medium-scale food processors to serve local markets. Future MARKETS activities should complement the present linkage with large agro-processors with linkages that will promote the growth of an indigenous agro-processing industry.

Agriculture-related government policies

Recommendation: *Support policy reform.* Presently, Nigeria's policy framework is not conducive to investments in the agriculture sector. Government decision-makers have, in the past, taken a simplistic policy viewpoint that by imposing high tariffs on imported food products, particularly rice, domestic agriculture will flourish. Thus far, these policies have only served to increase food prices for the entire population without having a pronounced effect on agricultural production. Furthermore, they shield Nigeria's farmers from external competition and provide no support to improve Nigeria's agricultural competitiveness. At the farm level, government interference in the marketing of fertilizer has had a severe negative impact in the availability of the critical agricultural input. Future MARKETS-like projects

should assist GON to develop external trade and domestic policies that support agricultural production and marketing, specifically those related to the value chains for the targeted agricultural products. The recommended approach is to work for policy change by coordinated activities through a group of like-minded international organizations, whose efforts would be supported by project activities. In this regard, the greatest emphasis of the project interventions should be on policy change, and not to simply conducting policy studies. Policy changes that are needed include 1) an investment climate that facilitates foreign as well as domestic agriculture investments, 2) national infrastructure that supports agricultural investments, such as reliable electricity, access roads and irrigation schemes, and 3) the absence of government involvement in agricultural marketing and especially, in input supply channels. One specific area of government interaction would be to provide technical and organizational support to rehabilitate and manage those irrigation schemes that are presently non-functioning, yet have considerable potential for crop production. This would likely entail partnerships with the relevant State governments for their rehabilitation, as well as to help to create and strengthen water users' associations that would provide for-fee services for operating and managing their respective irrigation schemes.

Agricultural credit

Recommendation: *Provide even greater support for rural credit.* The lack of available credit to the agricultural sector continues to be a severe constraint to rural economic growth, improved livelihood of farm families, and food security in Nigeria. Future initiatives should work to make an even greater effort to educate and enhance the capacity of commercial bank staff, and thereby to help change their bias and inherent mistrust of rural finance. Future projects should also consider supporting agricultural lending institutions to help them monitor crop production and harvest by the participating small farmers, as well as by working directly with producer organizations to facilitate and encourage loan repayments by individual farmers. It is further recommended that USAID review the agricultural lending practices of its Development Credit Authority (DCA) banking partners and provide this guaranteed scheme as an incentive to those financial institutions that have a track record in agricultural lending, such as First Bank and Union Bank. Finally, it is recommended that new financing mechanisms that have worked well in other countries – such as Savings and Loan agencies (S&Ls) and working with financial institutions to introduce and launch asset based financing products– be analyzed for a possible pilot program in Nigeria.

Input supplies

Recommendation: *Support private input providers via continued collaboration with IFDC.* Small farmers in Nigeria have limited access to good-quality input supplies, including fertilizer, farm chemicals and improved seed. The main reason are 1) government interference in input supply channels, 2) limited availability of credit needed to purchase the inputs, 3) a weak and fragmented network of dealers, composed largely of micro-entrepreneurs, 4) product standards are deficient; inputs are often adulterated and of unreliable quality, 5) fertilizer is normally applied without regard to soil type or soil conditions, and 6) the process of introducing new seed varieties into the country is extremely time consuming, even from neighboring African countries. Future MARKETS-like projects should support and strengthen a national network of private input suppliers. This should include:

- Support the creation and enforcement of quality standards for input supplies.
- Analyze the effect of current seed policy, and recommend changes.
- Encourage the use of soil analyses to determine optimum fertilizer requirements.
- Encourage the nation-wide use of an open and transparent voucher system for distributing subsidized fertilizer to small farmers within the targeted locations.

Mechanization

Recommendation: *Increase mechanization support.* With an aging farm population caused largely by the exodus of young people from rural to urban areas, the rural labor force is limited, especially for peak, seasonal activities such as harvesting. As commercial agriculture expands in Nigeria, there is an increasing requirement for on-farm mechanization, especially for land preparation and harvesting equipment. Future MARKETS-like projects should provide strong support to on-farm mechanization. Support should be hands-on and highly proactive, similar to IFDC's introduction of the equipment and technology needed to implement deep-placement of nitrogen fertilizer pellets.

Project focus

Recommendation: *Focus, focus, focus.* It is to the great credit of the implementation team that the MARKETS project has continued to emphasize its core activities despite an earmarked-funds situation that has led the project to engage in activities that do not necessarily support its overall purpose and objective. For greatest long-term impact, future USAID food security projects should ideally remain focused on their core activities that support the projects' goals – be they improved livelihood or enhanced food security.

Donor coordination

Recommendation: *Promote donor coordination.* MARKETS provides USAID/Nigeria with a useful vehicle for promoting improved coordination of donor activities in the Nigeria agricultural and other sectors. The accomplishments of the Project and its positive image throughout Nigeria can be used effectively in forging a more unified approach toward assistance to the agricultural sector, and economic growth in general in Nigeria. To capitalize on MARKETS, USAID/Nigeria might convene a series of meetings with representatives of relevant international assistance agencies. The purpose of the meetings is to reach agreement on the goals for a collaborative effort. Subsequent sessions would then establish an overall strategy; and a plan for implementing the coordinated approach by the participating agencies.

Incorporation of women/youth into commodity value chains

Recommendation: *Focus on women and youth.* Women and young people should be given an opportunity to participate in the economic growth of the rural sector. We recommend that the actors within the value chains be supported to proactively bring women and young people into the economic mainstream. Some ways to do this would be to support youth internship programs; support youth economic groups, and prepare women's groups to become suppliers of agricultural commodities.

Cowpea agro-processors

Recommendation: : *Step up support to cowpea processors.* Project-supported cowpea agro-processors in Nigeria are engaged in a pioneering effort to develop convenient consumer products from cowpea. This could potentially have a substantial impact on the future production, processing and sale of cowpea to the Nigerian consumer. However, the small operating scale and limited capitalization of the supported agro-processors puts their long-term viability in question. The MARKETS team should make a quick assessment of the financial viability of these enterprises and provide direct assistance as required to help ensure their long-term viability. Assistance could include marketing support, loan facilitation, and business services.

The aquaculture value chain

Recommendation: One obstacle to value chain development in aquaculture is that unlike other value chains such as rice and sorghum, there are no large-scale agro-processors operating a huge factory to which thousands of small-scale fish farmers could sell their products. Instead, fish production as well as fish marketing is highly fragmented, which means that marketing would be considerably more efficient through practices such as consolidating production from numerous producers, intermediate storage, and establishing dedicated market outlets. MARKETS might well consider the possibility of developing a normal value chain approach⁴ to aquaculture development, focused on the following activities:

- Provide marketing assistance to fish farmer associations such as the Catfish Farmers Association of Nigeria (CAFAN) to help these associations to become fish consolidators and marketers for their members, and also to serve as wholesale buyer of fish feed and aquaculture supplies for their members. This would require a considerable amount of management training and institutional strengthening for the associations, as well as a substantial line of credit for investments in storage facilities and for working capital.
- Directly support marketing and distribution activities for smoked fish, nationally as well as internationally⁵. Activities such as market analyses to gain a better understanding of available markets; support to develop attractive packaging and labeling; developing packaging to extend the product shelf life, and linkages with national and overseas buyers would generate additional sales by the industry.
- Finally, MARKETS could help to introduce innovative production practices such as the use of pond liners and specialized equipment for pond construction by demonstrating these practices at the farmer level through matching grants provided by the project's special activities fund (SAF).

Sesame cultivation

Recommendation: *Use international technical support to develop new sesame cultivation methods.* There is no international "Center of Excellence" for production technology for sesame that would serve as a means to develop new sesame varieties and increase crop yields in Nigeria, as well as other countries in Africa. USAID should use its good offices to encourage international crop research organizations such as the CGIAR network to incorporate sesame into its research programs.

The Special Activities Fund matching grant facility

Recommendation: *Make greater use of project-funded methods to introduce new technology and equipment into the field.* There seems to be some reluctance by the MARKETS field team to use the matching grant facility as a means to introduce innovative technology at the small farmer level, such as liners for aquaculture ponds, or specialized excavation equipment for the construction of fish ponds. The apparent

⁴ The requirements for developing aquaculture value chains is similar to that for any other agriculture commodity: to work along the value chain between the farmer and the market to solve problems and to remove constraints that affect the efficient production, transformation and marketing of the commodity. In summary, it would first involve identifying *weaknesses* and *constraints*, along the value chain both vertically and horizontally. These weaknesses and constraints would be the main inputs into sector strategy development- the strategy should highlight *opportunities* for reducing these constraints and weaknesses.

⁵ Through AGOA, one fish processor has made trial shipments of smoked fish to the United States, with no difficulty encountered for food certification. MARKETS should consider this a success story and USAID should consider replicating this best practice, and further, doing an assessment of the necessary certification and international standards required, if any, in order for other producers to export similar products.

reason for this reluctance is that the project should not be perceived as engaging in “giveaways” where project beneficiaries are provided an asset simply because they request it. However, in many cases considerable benefit can be gained through the use of matching grants (e.g. 75% project, 25% beneficiary) to employ new technology that can be copied by others. A similar issue is that the MARKETS field team is reluctant to fund the out-of-pocket cost of demonstration plots on small farmer’s fields, since the team wants to “ensure ownership” of the demonstration plot. This appears to be an overly penurious approach, since other project-supported farmers benefit from the demonstration effect that is provided. Furthermore, by providing project-funded agricultural inputs to the responsible farmer, the MARKETS team can remove the financial constraint to the demonstration plot, as well as ensuring that appropriate materials are available for the demonstration effect.

Small farmer training in production practices

Recommendation: *Change the timing of training.* One of the points that came out clearly during the team's interactions with farmers' groups during field visits was that farmer training in production practices is often done late in the farming season. For the training to have more impact, it should come before the commencement of the cropping season so that knowledge acquired in the training can be applied in all the aspects of the farming activities at the right time.

ANNEX I

Table I ORIGINAL TARGETS AND INDICATORS: MARKETS - A PROJECT							
Indicator No.	Description	Original Targets - Cumulative					LOP Target
		2006	2007	2008	2009	2010	
1	Income from selected commodities and products	\$10,000,000	\$30,000,000	\$60,000,000	\$90,000,000	\$100,000,000	\$100,000,000
2	Number of new jobs created	10,000	30,000	60,000	90,000	100,000	100,000
3	Number of clients networked into MARKETS	31,200	125,000	125,000	406,250	500,000	500,000
4	Number of agribusiness firms assisted by MARKETS	25	30	35	38	40	40
5	Change in volume of bulk commodities processed into value-added products	5%	10%	15%	25%	30%	30%
6	Volume of value-added commodities and products produced (MT)	16,045	25,000	30,000	35,000	40,000	40,000
7	Value of value-added commodities and products produced	\$7.63M	\$14.58M	\$20.19M	\$25.44M	\$26.18M	\$26.18M
8	Number of people trained on private sector growth training	15,000	20,000	25,000	30,000	35,000	35,000
9	Number of client enterprises benefiting directly from MARKETS BDS	750	800	850	900	950	950
10	Change in the productivity of selected commodities	10%	20%	40%	80%	100%	100%
11	Amount of gross revenue generated	\$20M	\$60M	\$120M	\$180M	\$200M	\$200M
12	Commodity sales by MARKETS-assisted producer groups and enterprises	\$2.1M	\$19.4M	\$49.2M	\$55.8M	\$58.5M	\$58.5M
13	Quantity of fertilizer sold by the private sector (MT)	0.5 Million	1.0 Million	1.5 Million	2.0 Million	2.5 Million	2.5 Million
14	Area under improved management (Ha)	15,000	25,000	35,000	45,000	50,000	50,000
15	Number of improved technologies introduced by MARKETS	5	10	15	20	25	25
16	Number of clients adopting improved technologies introduced by MARKETS	7,500	10,000	13,000	15,000	20,000	20,000
17	Number of technology demonstrations organized	-	10	15	20	25	25
18	Percentage change in value of purchases from smallholders of targeted commodities	-	30%	35%	40%	45%	45%
19	Number of business deals facilitated by MARKETS	15	20	25	30	35	35
20	Number of sustainable producer associations assisted by MARKETS	230	700	1,200	1,800	2,000	2,000
21	Membership in sustainable producer associations assisted by MARKETS	25,000	30,000	35,000	40,000	45,000	45,000
22	Number of people trained on agricultural-related training	10,375	15,000	20,000	25,000	30,000	30,000
23	Number of farmers receiving extension services	25,000	30,000	35,000	40,000	50,000	50,000
24	Amount of finance credit leveraged for farmers, agro-processors, and MSMEs	\$1.25M	\$10M	\$15M	\$25M	\$31.5	\$31.5

25	Number of bank and MFI loans facilitated by MARKETS	9,650	12,650	15,750	19,250	20,500	20,500
26	Number of MFI and MSME trainings organized.	0	1	2	3	4	4
27	Number of wholesale loans facilitated	3	4	5	6	7	7
28	Number of producers using market information	6,225	7,000	8,000	9,000	10,000	10,000
29	Number of private-public partnerships established by MARKETS	-	34	40	44	50	50

Table 2 REVISED TARGETS AND INDICATORS: MARKETS GFSR PROJECT							
Indicator No.	Description	GFSR Targets - Cumulative					LOP Target
		2006	2007	2008	2009	2010	
1	Number of clients networked into MARKETS	31,200	125,000	312,000	870,000	1,200,000	1,200,000
2	Number of new jobs created	10,000	20,000	45,000	95,000	160,000	160,000
3	Amount of gross revenue generated	\$20M	\$40M	\$80M	\$160M	\$260M	\$260M
4	Income from selected commodities and products	-	-	\$45M	\$65M	\$85M	\$85M
5	Change in the productivity of selected commodities	10%	20%	40%	100%	100%	100%
6	Number of new technology or management practices under field testing as a result of USG assistance	-	-	-	20	38	38
7	Number of new technology or management practices made available for transfer as a result of USG assistance	-	-	14	25	38	38
8	Number of farmers, processors, and others who have adopted new technologies or management practices as a result of USG assistance	7,500	10,000	110,000	460,000	590,000	590,000
9	Number of additional hectares under improved technologies or management practices as a result of USG	-	-	21,000 Ha	36,000 Ha	40,000 Ha	40,000 Ha
10	Number of individuals who have received USG supported short term agricultural sector productivity training	10,375	15,000	110,000	160,000	200,000	200,000
11	Number of producer associations, trade and business associations, and community based organizations (CBO) assisted as a result of USG intervention	230	700	788	5,500	5,900	5,900
12	Percentage change in value of purchases from smallholders of targeted commodities	-	-	-	-	80%	80%
13	Volume of value-added commodities and products produced	16,045Mt	25,000Mt	30,000Mt	85,000Mt	145,000Mt	145,000Mt
14	Value of value-added commodities and products	\$7.63M	\$14.58M	\$20.19M	\$85.00M	\$145.00M	\$145.00M
15	Number of people trained on private sector development training	-	-	35,000	135,000	235,000	235,000

Table 2		REVISED TARGETS AND INDICATORS: MARKETS GFSR PROJECT					
Indicator No.	Description	GFSR Targets - Cumulative					LOP Target
		2006	2007	2008	2009	2010	
16	Change in volume of bulk commodities processed into value-added products	-	-	-	-	30%	30%
17	Number of public-private partnerships established by MARKETS.	-	-	5	14	19	19
18	Analysis of transport corridor conducted	-	-	-	-	Milestone	Milestone
19	Stages for the establishment of a corridor management group completed	-	-	-	-	Milestone	Milestone
20	Number of corridor improvement projects prepared.	-	-	-	-	2	2
21	Stages completed in drafting NCS service act in accordance with International standards.	-	-	-	-	Milestone	Milestone
22	Number of trade and transport policy interventions conducted.	-	-	-	1	2	2
23	Number of institutional capacity building activities conducted.	-	-	-	1	2	2
24	Number of agricultural-related firms that are benefiting directly from USG supported interventions	-	-	40	70	95	95
25	Increased public expenditures and investments in the agricultural sector	-	-	-	-	20%	20%
26	Number of Individuals whose policy analysis capabilities have improved	-	-	-	3	10	10
27	Number of sound policies identified for the agricultural input sector	-	-	-	4	3	3
28	Number of country-owned agricultural policy strategies developed	-	-	-	-	1	1
29	Number of policy briefs and papers produced and disseminated:						
29a	No. of Research-based briefs	-	-	-	7	4	4
29b	No. of Literature-based briefs	-	-	-	0	4	4
29c	No. of Papers	-	-	-	5	5	5
29d	Aggregate No. of Briefs disseminated	-	-	-	400	500	500
29e	Aggregate No. of Papers disseminated	-	-	-	300	300	300

Table 2		REVISED TARGETS AND INDICATORS: MARKETS GFSR PROJECT					
Indicator No.	Description	GFSR Targets - Cumulative					LOP Target
		2006	2007	2008	2009	2010	
29f	No. of Participants in IFPRI-organized dissemination events	-	-	-	50	50	50
30	Amount of finance credit leveraged for farmers and agro-processors	\$1.25M	\$10M	\$30M	\$42M	\$57M	\$57M
31	Number of bank and MFI loans facilitated by MARKETS from financial institutions	-	-	140,000	158,000	176,000	176,000
32	Number of wholesales loans facilitated	-	-	12	13	14	14

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Table 3**Comparison of Contract Values and Expenditures MARKETS
Project (\$000)****(As of 12/31/2008 End of MARKETS – A)**

	Contract Values	Obligations	Expenditures
MARKETS Core Activities (value chain activities)	24,199	15,979	15,816
PEPFAR	3,518	2,463	198
Biodiversity	983	983	104
Total	\$28,699	\$19,424	\$16,119

(As of 12/31/2009 - MARKETS GFSR)

	Contract Values	Obligations	Expenditures
MARKETS Core Activities (value chain activities)	24,199	16,345	16,409
GFSR	23,000	23,000	10,565
PEPFAR	3,518	3,518	2,156
Biodiversity	983	983	173
Total	\$51,699	\$43,846	\$29,303

Table 4									
MARKETS GFSR: COMPARISON OF TARGETS WITH ACTUAL AND PROJECTED RESULTS									
No.	Description	GFSR Targets - Cumulative					FY 2009 Actual	LOP Target	LOP Projected
		FY 2006	FY 2007	FY 2008	FY 2009	FY 2010			
1	Number of clients networked into MARKETS	31,200	125,000	312,000	870,000	1,200,000	395,006	1,200,000	1,215,000
2	Number of new jobs created	10,000	20,000	45,000	95,000	160,000	149,300	160,000	224,300
3	Amount of gross revenue generated	\$20M	\$40M	\$80M	\$160M	\$260M	\$130.6M	\$260M	\$260M
4	Income from selected commodities and products	-	-	\$45M	\$65M	\$85M	\$66M	\$85M	\$85.8M
5	Change in the productivity of selected commodities	10%	20%	40%	100%	100%	Rice 247% Sorghum 90%	100%	Rice: 250% Sorghum: 100% Cassava: 100% Sesame: 25%
6	Number of new technology or management practices under field testing as a result of USG assistance	-	-	-	20	38	23	38	38
7	Number of new technology or management practices made available for transfer as a result of USG assistance	-	-	14	25	56	23	38	65
8	Number of farmers, processors, and others who have adopted new technologies or management practices as a result of USG assistance	7,500	10,000	110,000	460,000	590,000	188,310	590,000	590,000
9	Number of additional hectares under improved	-	-	21,000 Ha	36,000 Ha	40,000 Ha	48,907 Ha	40,000 Ha	72,407 Ha

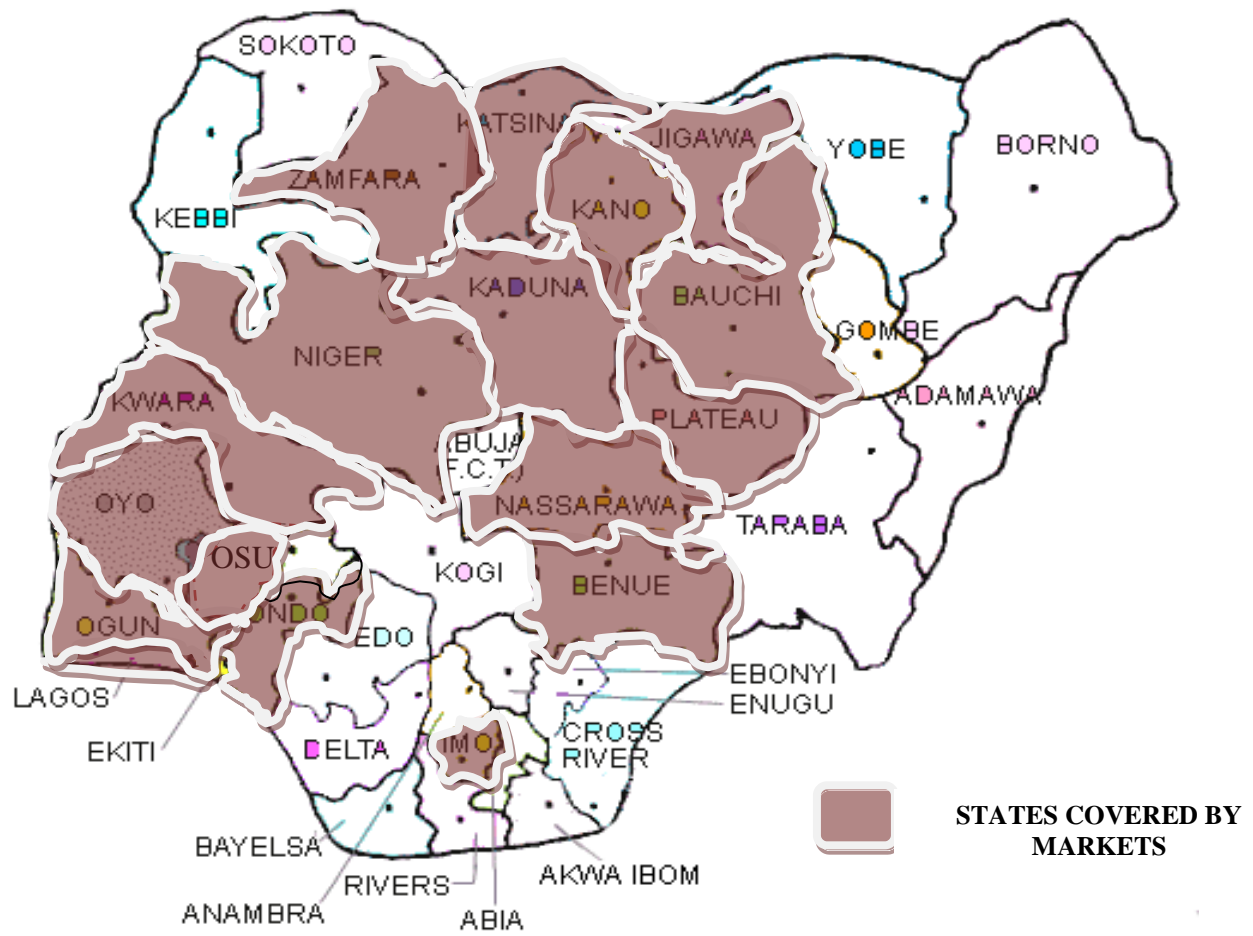
Table 4									
MARKETS GFSR: COMPARISON OF TARGETS WITH ACTUAL AND PROJECTED RESULTS									
No.	Description	GFSR Targets - Cumulative					FY 2009 Actual	LOP Target	LOP Projected
		FY 2006	FY 2007	FY 2008	FY 2009	FY 2010			
	technologies or management practices as a result of USG								
10	Number of individuals who have received USG supported short term agricultural sector productivity training	10,375	15,000	110,000	160,000	200,000	136,030	200,000	176,030
11	Number of producer associations, trade and business associations, and community based organizations (CBO) assisted as a result of USG intervention	230	700	788	5,500	5,900	10,608	5,900	20,608
12	Percentage change in value of purchases from smallholders of targeted commodities	-	-	-	-	80%	55%	80%	80%
13	Volume of value-added commodities and products produced	16,045 Mt	25,000 Mt	30,000 Mt	85,000 Mt	145,000 Mt	67,305 Mt	145,000 Mt	120,305 Mt
14	Value of value-added commodities and products	\$7.63M	\$14.58M	\$20.19M	\$85.00M	\$145.00 M	\$69.4M	\$145.00M	\$128M
15	Number of people trained on private sector development training	-	-	35,000	135,000	235,000	43,463	235,000	235,000
16	Change in volume of bulk commodities processed into value-added	-	-	-	-	30%	Rice: 99.5% Sorghum: 26.3%	30%	30%

Table 4									
MARKETS GFSR: COMPARISON OF TARGETS WITH ACTUAL AND PROJECTED RESULTS									
No.	Description	GFSR Targets - Cumulative					FY 2009 Actual	LOP Target	LOP Projected
		FY 2006	FY 2007	FY 2008	FY 2009	FY 2010			
	products								
17	Number of public-private partnerships established by MARKETS.	-	-	5	14	19	9	19	13
18	Analysis of transport corridor conducted	-	-	-	-	Milestone	1	Milestone	1
19	Stages for the establishment of a corridor management group completed	-	-	-	-	Milestone	0	Milestone	5
20	Number of corridor improvement projects prepared.	-	-	-	-	2	0	2	3
21	Stages completed in drafting NCS service act in accordance with International standards.	-	-	-	-	Milestone	1	Milestone	4
22	Number of trade and transport policy interventions conducted.	-	-	-	1	2	0	2	3
23	Number of institutional capacity building activities conducted.	-	-	-	1	2	4	2	10
24	Number of agricultural-related firms that are benefiting directly from USG supported interventions	-	-	40	70	95	65	95	95
25	Increased public expenditures and investments in the agricultural sector	-	-	-	-	20%	0	20%	20%
26	Number of Individuals whose policy	-	-	-	3	10	0	10	13

Table 4	MARKETS GFSR: COMPARISON OF TARGETS WITH ACTUAL AND PROJECTED RESULTS									
	No.	Description	GFSR Targets - Cumulative					FY 2009 Actual	LOP Target	LOP Projected
FY 2006			FY 2007	FY 2008	FY 2009	FY 2010				
		analysis capabilities have improved								
27		Number of sound policies identified for the agricultural input sector	-	-	-	4	3	0	3	7
28		Number of country-owned agricultural policy strategies developed	-	-	-	-	1	0	1	1
29		Number of policy briefs and papers produced and disseminated:					10	1	10	10
29a		No. of Research-based briefs	-	-	-	7	4		4	
29b		No. of Literature-based briefs	-	-	-	0	4		4	
29c		No. of Papers	-	-	-	5	5		5	
29d		Aggregate No. of Briefs disseminated	-	-	-	400	500		500	
29e		Aggregate No. of Papers disseminated	-	-	-	300	300		300	
29f		No. of Participants in IFPRI-organized dissemination events	-	-	-	50	50		50	
30		Amount of finance credit leveraged for farmers and agro-processors	\$1.25M	\$10M	\$30M	\$42M	\$57M	\$51M	\$57M	\$63.6M
31		Number of bank and MFI loans facilitated by MARKETS from financial institutions	-	-	140,000	158,000	176,000	227,162	176,000	299,162
32		Number of wholesales loans facilitated	-	-	12	13	14	15	14	18

ANNEX II

MAP OF STATES COVERED BY MARKETS PROJECT



ANNEX III

LIST OF MEETINGS HELD BY MARKETS PROJECT

Name of institution/firm	Location	Commodity
Aba Malting Plant/Nigeria Breweries	Lagos/Kaduna	Sorghum
NARCBD	Kaduna/Kastina farmers	Sorghum
Kaduna State ADP	Kaduna	Sorghum
IITA	Ibadan, Kano	
Convenient Home Foods	Kano	Cowpea
Maina Seeds	Kano	Sorghum
FADAMA User's Association	Kano	Sorghum
DDI	Kano	
Olam Nigeria	Kano	Sesame
Da-AllGreen Seeds	Zaria	Sorghum
Olam Nigeria Ltd.	Makurdi	Rice
Benue State Agricultural Development Authority-BNARDA (ADP)	Benue State	
Grand Cereals Oil Mills	Jos	Sorghum
El Bhi	Minna	Cowpea
DFID PROPCOMM	Abuja	
IFDC	Abuja	
Golden Fertilizer	Kano	
Azemor Agribusiness	Ibadan	Aquaculture
Catfish Farmers Association of Nigeria	Ibadan	Aquaculture
Various Village level Farmer's Associations	Jigawa State, Kano State, Zaria	Sesame, sorghum, cassava
Women's Farmer's Associations	Zaria, Kano State	Sorghum/cassava
Durante	Ibadan	Aquaculture
Matna Foods	Ile-Oluji	Cassava
Coop Cocoa	Akure	Cacao
Nigeria MEMS	Abuja	
West Africa Seed Alliance	Abuja	

(WASA)		
Magnum Associates Limited	Nasarawa State	Sesame
First Bank PLC	Lagos	
Ekha Agro	Ibafo	Cassava
IFAD	Abuja	
MARKETS BPO South		
Chemonics MARKETS technical leads and staff		
World Economic Forum (phone conversation)	Lagos	
MARKETS BPO North		