FEDERAL REPUBLIC OF NIGERIA

ECOWAP/CAADP PROCESS

NATIONAL AGRICULTURAL INVESTMENT PLAN

(NAIP)

2011-2014

FEDERAL MINISTRY OF AGRICULTURE AND RURAL DEVELOPMENT

SEPTEMBER, 2010

FACT SHEET	
National Population	140 million
Total Land Area	92.4 million ha.
Total Arable Land	79 million ha.
Total Cultivated Land	32 million ha.
Number of Farm Households	14 million
Potential Irrigable Area	3.14 million ha.
Current Area under Irrigation	40,000 ha.
Surface Water	267 billion cubic cm.
Underground Water	57.9 billion cubic cm.
Annual Rainfall Range	300mm-4000mm
Agricultural Contribution to GDP	42 percent (2009)
Agricultural Workforce	70 percent
Tractor Density	0.2 hp/ha (latest)
Fertilizer Usage	13 kg/ha (latest)

ACRONYMS

ABU	Ahmadu Bello University Zaria
ADP	Agricultural Development Programme
ADPEC	Agricultural Development Programme Executive Committee
AfDB	African Development Bank
AFNP	Available Funding for New Projects
AIMS	Agricultural Information Management System
AQS	Agriculture Quarantine Service
ARCN	Agriculture Research Council of Nigeria
ARI	African Rice Institute
BADEA	Arab Bank for the Economic Development of Africa
BOF	Budget Office of the Federation
BPP	Bureau of Public Procurement
CAADP	Comprehensive Africa Agriculture Development Programme
CBARDP	Community Based Agricultural and Rural Development Programme
CBNRMP	Community Based National Resource Management Programme
CBO	Community-Based Organization
CDD	Community-Driven Development
CDF	Community development Fund
CGE	Computable General Equilibrium
CIDA	Canadian International Development Agency
CTA	Chief Technical Advisor
DP	Development Partner
ECOWAS	Economic Community of West African States
ECOWAP	ECOWAS Programme
EIA	Environmental Impact Assessment
FAO	Food and Agriculture Organization of the United Nations

FASCOM	Federal Supply Companies
FCT	Federal Capital Territory
FDA	Federal Department of Agriculture
FDF	Federal Department of Fisheries
FGN	Federal Government of Nigeria
FLD	Federal Livestock Department
FMA	Federal Ministry of agriculture
FME	Federal Ministry of Environment
FMAWR	Federal Ministry of Agriculture and Water Resources
FMARD	Federal Ministry of Agriculture and Rural Development
GDP	Gross Domestic Product
GMP	Guaranteed Minimum Price
IAR	Institute of Agricultural Research
ICT	Information and Communication Technology
IFAD	International Food and Agricultural Development
IRR	Internal Rate of Return
IsDB	Islamic Development Bank
ISTA	International Seeds Testing Association
LGA	Local Government Area
LGC	Local Government Council
MDA	Ministries, Departments and Agencies
MDG	Millennium Development Goals
M&E	Monitoring and Evaluation
MTBF	Medium-Term Budget Framework
MTSS	Medium-Term Sector Strategy
NACRDB	National agricultural Cooperative and Rural Development Bank
NAIC	National Agricultural Insurance Company

NAIP	National Agricultural Investment Plan
NAPRI	National Animal Production Research Institute
NARI	National Agricultural Research Institute
NARP	National Agricultural Research Programme
NASC	National Agricultural Seeds Council
NCA	National Council on Agriculture
NCRI	National Cereal Research Institute
NEEDS	National Economic Empowerment and Development Strategy
NEPAD	New Partnership for Africa's Development
NERICA	New Rice for Africa
NAFDAC	National Agency for Food and Drugs Administration and Control
NFDC	National Fadama Development Committee
NFRA	National Food Reserve Agency
NFSP	National Food Security Programme
NGO	Non-Government Organization
NLPD	National Livestock Production Department
NPAFS	National Program for Agriculture and Food Security
NPC	National Planning Commission
NPCo	National Program Coordinator
NPFS	National Program for Food Security
NWFP	Non-Wood Forestry Product
OSSAP	Office of Senior Special Assistant to the President
PPAS	Planning, Policy Analysis and Statistic
PPP	Public-Private-Partnership
PSO	Private Sector Organization
RBDA	River Basin Development Authority
ReSAKSS	Regional Strategic Analysis and Knowledge Support System

RRF	Results and Resource Framework
PRSP	Poverty Reduction Strategy Paper
RBDA	River Basin Development Authority
SAKSS	Strategic Analysis and Knowledge Support System
SFSC	State Food Security Coordinator
SMART	Specific, Measurable, Achievable, Reliable and Time-bound
SON	Standard Organization of Nigeria
SPA	Seven-Point Agenda
SSA	Sub-Saharan Africa
STMC	State Technical Management Centre
STP	Sector Planning Team
TFP	Total Factor Productivity
TMA	Technical Management Committee
UA	Unit of Account
USAID	United States Agency for International Development
VMS	Vessel Monitoring System
WAAPP	West Africa Agriculture Productivity Programme

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EXECUTIVE SUMMARY

Introduction

The main challenges currently facing Nigeria are to eradicate poverty, attain food security, achieve global agricultural competitiveness and realize sustainable management of her resources to achieve rapid economic development. Nigeria has an abundant and good agricultural base, human capital and a wide range of natural resources. But until the recent past, economic performance has been disappointing, more so in the critical agricultural sector which accounted for 42 percent of GDP during 2005-9. GDP per capita had witnessed substantial secular stagnation during most of the post-colonial era, resulting in a substantial increase in the numbers of the poor and their proportion of the population. From approximately 28 percent nationally in 1980, the incidence of poverty rose to about 54 percent by 2004 and this is characterized by substantial regional disparity. The majority of the poor depend on agriculture for their livelihoods; it is estimated that about one half of the rural women is still engaged in subsistence agriculture for survival. As such, improved agricultural performance in Nigeria is critical to poverty reduction and in achieving food security.

Performance of the Agricultural Sector

The performance of the agricultural sector, until the recent past, saw a much pronounced decline in its share of value added in GDP, partly because of the rising dominance of the oil sector but also because of the extreme uncertainty in policy direction brought about by sudden changes in government and increased direct government intervention in the sector. The last two decades, have seen an attempt to withdraw the government's intensive intervention in the sector and to promote increased private sector participation. The period (especially since 2005) has been characterized by substantial market liberalization and the share of agriculture value in GDP has gradually increased. Growth rates during 2006-08 averaged 7 percent, exceeding the target of 6 percent established by the Comprehensive Africa Agriculture Development Program (CAADP), making agriculture the lead sector. However, its growth and that of the entire economy is well below the 10 percent estimated as necessary for sustainable food security and poverty reduction. There continues to be a wide gap between output and demand and the country is still heavily dependent on imports of agricultural commodities, particularly fish, livestock products, rice, wheat and sugar due to underexploited potential.

Challenges of the Agricultural Sector

The challenges faced by agriculture in Nigeria could be grouped under five categories:

- Organizational and weak policy environment which relates to smallholdings, dispersed nature of farm settlement, and unorganized nature of farmer

communities. Associated with the organizational deficiencies is the absence of policy clarity at all three levels of government.

- Resource market failure, which relates to land and labor market inefficiencies, the lack of enforceable ownership and control over land, and rent-seeking behavior of associated public agencies.
- Limited access to improved technologies in the form of improved seeds, cuttings, breed, vaccines and agrochemicals, etc and the use of mainly hoes and cutlasses as the principal implement for crop agriculture at the small-holder level. Related to technological constraints are poor research and extension services as well as weak linkages with farmers for the uptake of innovations in areas such as seeds, pest and disease control. These also apply to livestock and fisheries sectors.
- Infrastructure inadequacies, which include poor road network particularly feeder roads, markets and storage/processing facilities as well as inadequate irrigation facilities which limit agricultural production to only the wet season in many parts of the country. Some 80 percent of the respondents across the country in a 1995 survey identified infrastructure as the most critical constraint to the development of agriculture in Nigeria.
- Financial market weaknesses, which may be attributed to inadequate and poorly targeted credit and the absence of competition in the supply markets as well as a well-defined effective demand structures as a result of low income and poverty.

Government's Strategy and Targets

In response to the challenges posed by the need to accelerate economic growth to support poverty reduction, the Federal Government of Nigeria (FGN) has made agriculture one of the major pillars of its strategic vision for growth and development, formulated through the Seven Point Agenda (SPA), which identifies the core areas to revitalise the economy. The SPA covers power and energy, food security and agriculture, wealth creation and employment, mass transportation, land reform, security, and qualitative and functional education. The role of the agricultural sector in the SPA is to: (i) attain food security, (ii) increase production and productivity, (iii) generate employment and income, and (iv) expand exports and reduce food imports thereby freeing resources for critical infrastructure development and delivery of social services.

In view of the above, the Federal Ministry of Agriculture and Water Resources (now the Federal Ministry of Agriculture and Rural Development) decided that the planning process would be guided by the 5-Point Agenda, which is largely consistent with the four CAADP principles (see CAADP Nigeria Briefs 1-5). The 5-Point Agenda is characterized by the five pillars below. To complement the overall 8 percent growth target in the economy for 2010-2020, the Government has set a target of 10 percent annual growth rate for the agricultural sector, compared to the 6 percent

annual rate agreed by CAADP in Maputo in 2003. To achieve this goal the FGN plans to put in place an enabling environment that is conductive to high agricultural growth and in enhancing private sector investments in agriculture. These are expressed in the National Food Security Programme (NFSP) document, which is consistent with the objectives of the first millennium development goal (MDG1) for poverty reduction, and the subsequent Five-Point Agenda for Agriculture that is aligned to the CAADP principles.

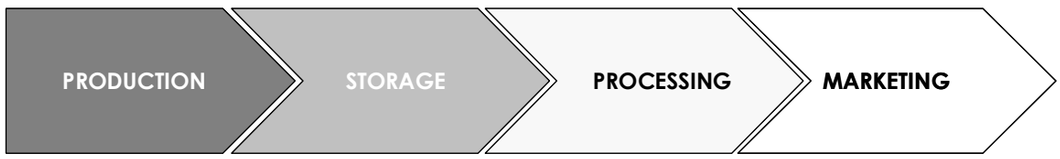
The Five-Point Agenda and the CAADP Principles

5-Point Agenda	CAADP Principles
1. Developing Agricultural Policy and Regulatory System (DAPRS): This involves the strategic review and reform of key institutions in the agricultural sector, agricultural policy, advocacy framework, proactive legislation, sound policy on financing agriculture (credit and grant support) towards market competitiveness and an effective regulatory framework including fiscal incentives and tariff regimes to support backward integration.	(iv) Strengthening agricultural research, technology dissemination and adoption.
2. Agricultural Commodity Exchange Market (ACCOMEX): This will involve the establishment of an agricultural commodity exchange market with the objective of achieving efficient marketing and price information systems, institutional strengthening of private sector agro-input suppliers; ensuring accessibility, availability, affordability of agricultural inputs; agro-aviation development to facilitate the evacuation of agricultural produce to domestic and international markets; agro export handling/conditioning centres for the processing, packaging and labelling of produce to meet international standards; Guaranteed Minimum Price (GMP) mechanisms; much needed storage infrastructure in view of the large volume of produce involved; and Agricultural Information Management System (AIMS) to ensure the availability of information for the buyers, sellers and farmers on type, location and price of commodities at any particular point in time.	(ii) Improving rural infrastructure and trade-related capacities for market access. (iii) Increasing food supply and reducing hunger.
3. Raising Agricultural Income with Sustainable Environment (RAISE): This requires the focus on the development of the rural energy, rural markets, schools, communication, water and sanitation, transport and health as basic components for addressing the challenges of small and medium scale agri-business development in the area of value chain infrastructure development and infrastructure for sustenance of the environment. RAISE has two components: RAISE Small-Scale is a deliberate approach for integrating rural agribusiness development with social-economic district development, commencing with 400 sites; RAISE Medium-Scale targets young educated, unemployed persons to replace the present ageing farming groups as an out-grower based project, commencing with twelve sites.	(iii) Increasing food supply and reducing hunger.
4. Maximising Agricultural Revenue in Key Enterprises (MARKETS): This will create the necessary market infrastructure as well as implement the Guaranteed Minimum Price (GMP) policy, to propel the development of the agricultural sector by linking production to markets. The ultimate objective is to attain sustainable markets ecosystem, including agro-processing plants, cold chain stores, community warehouses, food centres in major cities, model highway markets and agri-business development centres	(ii) Improving rural infrastructure and trade-related capacities for market access.
5. Water, Aquaculture and Environmental Resource Management: This involves the development of 1,500 targeted RAISE sites with small dams and irrigation infrastructure facilities; flood control; early warning systems; agricultural cadastral through auto-photo mapping of farmlands; migratory pest control; bio-energy development; carbon credit project through a forestation and reforestation.	(i) Extending the area under sustainable land management and reliable water control systems.

The National Agricultural Investment Plan (NAIP)

As part of the post-compact CAADP process, the member states of ECOWAS each agreed to prepare the National Agricultural Investment Plan (NAIP). In Nigeria, the NFSP document (2008-2011), which was launched in response to the global food crisis of 2007-08, and under the directives of the SPA, forms the basis for the NAIP. It was developed by working closely with all stakeholders in agriculture and water sector to arrive at a private sector led growth agenda, where the public sector plays a facilitating role. The approach adopted by NAIP addresses every component of the entire agriculture value chain for crops, livestock (including poultry) and fisheries. The agricultural value chain is defined as the full sequence of activities or functions required to bring a product from conception, through the intermediary steps of production, storage, processing, marketing, and delivery to the final consumers. The figure below illustrates the sequence of the value chain. In this process, the Federal Government (through its MDAs) sets the direction, while the organized private sector as well as the State and Local Governments drive execution. Infrastructure provision at each stage facilitates the process.

Agriculture Value Chain



The NAIP has two main components: (a) the MTSS which comprises all projects under the auspices of the FGN (for which financial resource allocation and releases are approved by both the House of Representatives and the Senate), but executed by the FMARD, its departments and agencies (MDAs), research institutions, authorities and commissions, and the private sector (through the Public Private Partnership – PPP); and (b) the Partnership Programmes, comprising projects fully or partially financed by donor agencies but are either fully executed by the respective donor or jointly with the FGN or the states and private sector.

The NAIP described in this document is transitional (spanning the period 2011-2014) as it constitutes a sub-set of projects within the MTSS deemed high-priority in the context of the National Vision 20:2020. The policy thrust is on enhancing total factor productivity in the agricultural sector through the application and diffusion of knowledge and improvement in the technology base. It is envisaged that the sectoral contribution to the GDP, will shrink from the 41.5 percent (2009) to 28 per cent (by 2014), as increasing share of the outputs of the sector is transformed from their primary state into processed products.

Description of the NAIP

The NAIP concentrates on essentially three commodity program groups: crops, livestock (including poultry) and fisheries. The support by the Federal, State and Local Government for the production of the commodities under the three program groups is supplemented by five critical services: input support (fertilizer and seeds), quarantine services, irrigation infrastructure, farmer associations (including cooperatives), and research and development. Processing and marketing infrastructure support are also provided in conjunction with other ministries of government (notably the Ministry of Industry and Commerce and the Ministry of Transport). Environmental mitigation services are built into the programs of the NAIP and are executed and monitored in conjunction with Federal Ministry of Environment.

The core programme on crops highlights three key areas; they are (i) the National Programme for Food Security (NPFS), (ii) the National Fadama III development project and (iii) the Multinational NERICA rice dissemination project. These projects address the policy goals of CAADP, namely investment in land and water resources, small rural infrastructure, food security and agricultural research and extension. The livestock (including poultry) development programme aims to encourage private sector investment, rapidly increase the supply of livestock products, enhance competition, and help create employment. Finally, the fisheries development programme aims at providing technical, financial and policy assistance to the private sector to produce top quality fishery products.

The support services include: (a) the agriculture quarantine service to enhance the capacity for crops, livestock and fishery surveillance against diseases and pests; (b) seed inspectorate services to promote the growth and development of the seed industry;(c) dam and irrigation schemes to support the shift from seasonal to all year farming; (d) support for the establishment of farmer association to seek common goals; and (e) agricultural research development, which focuses on the intensification of applied research, including the establishment and capacity development of research institutions. The synergies among the programmes are provided by their respective contribution towards the common goal of achieving food security and reducing poverty.

The National Agricultural Investment Plan, consistent with the regional integration programme in West Africa (ECOWAS), participates in a number of regional programs, including the multinational NERICA programme, the Vessel Monitoring System (VMS), and the West Africa Agricultural Productivity programme (WAAPP).

Results and Resource Framework

For the purposes of the results framework, the medium-term outcomes of the NAIP are defined as consistent with the goals of the National Food Security Programme

(Chapter 2). Annex I spells out selected expected outcomes and associated target outputs in a log frame (the full range of outcomes and targets are discussed in the text). Overall, the principal goals are:

Secured food and feed needs of the nation.

- Achieve a 100 percent increase in crop subsector l productivity by 2015.
- Expand dairy production and milk yield from the current less than 2,000 kg to 5,000kg per cow per lactation by 2015.
- Increase current production of about 700,000 tonnes of fish to about 3 million tonnes.
- Reduce by 50 percent by 2010, the number of households that are food insecure

Increase by 30 percent the number of households that have adequate dietary

Enhanced national and social wealth through greater exports, as well as import substitution.

- increase by 20 percent the value of agricultural products exported by 2015
- Reduce the present level of food import (worth over $3 billion per annum) by 50 per cent in 2015 and by 90 per cent in 2020.
- Derive about 10 per cent of the nation's foreign exchange earnings through agro-industrial exports by 2015.

Enhanced agro-industrialization and employment levels

- Reduce the post harvest loss of agricultural produce by an average of 50 per cent in 2015.
- Increase by 20 percent the value addition of agricultural products through processing and nutrient fortification
- Increase by 30 percent of available rural infrastructures

Efficient exploitation and utilization of available agricultural resources.

- Increase the size of irrigated land from current 1 per cent of cultivable land to 10 percent by 2015.
- Increase area of land planted with diversified biomass including economic species in agro forestry program from current 3.5 to 7 percent in 2015.

- Complete the establishment of gazette forest and grazing reserves by 2015.

Adoption of appropriate and efficient technologies for increased agricultural production.

- Achieve an efficient agricultural extension delivery system which includes extension worker farmer ratio of 1:500 by 2020.
- Achieve the adoption of improved varieties/species of seed and brood stock by 50 per cent of the farmers by 2015 and 75 per cent by 2020
- Increase by 30 percent the use of fertilizers by farmers across the country
- Increase by 50 percent the use of animal traction and small machinery for agricultural production across the country

These are directed in meeting the food security and poverty reduction objectives of the government and the MDG1 target of reducing by one-half the number of people below the poverty-line by 2015.

Monitoring and Evaluation (M&E)

Implementation of the results framework would be undertaken through the M&E framework. Every year, before the next budget appropriation, all projects being executed under the NAIP will be reviewed on the basis of the results framework outlined in Annex I. The combined M&E will be undertaken using the CAADP guidelines by the SAKSS Node of FMARD (currently being established under PPAS). The report of the annual M&E will be posted at the FMAWR web site and linked to ReSAKSS. At the end of the first three years of the NAIP (2013), a full assessment of the progress and result of implementation would be made by independent evaluators.

Implementation Arrangement

Since some of the projects are ongoing and contains elements of a transition, the framework of implementation adopts some of the approaches in use and proposes additional strategies for pursuing the goals of the plan. The FGN is responsible for the effective management and delivery of results for the projects under the NAIP. The projects are implemented by the Ministries, Departments and Agencies (MDAs), and where appropriate would be undertaken by contract with the private sector using country systems (guidelines for procurement, accounting, reporting, etc.). When development partners are associated with the project, the agreements to be reached with the respective DPs would require modalities to ensure close collaboration in joint monitoring, review and evaluation of the progress of project implementation. Safeguard issues will be handled under implementation; the critical ones are being gender and environmental issues which are defined elaborately under the ranking framework in M&E.

Many of the projects in the NAIP (especially those supporting the crop sector) provides support and capacity building in group development, marketing, rural finance, rural infrastructure and off-farm income generating activities. Group development encompasses group formation and strengthening by providing the community development agents at the state and LG levels with additional training and re-orientation, transport and supervision. At site level, there would be consultation with the villagers and traditional leadership to mobilise all segments of the rural community to effectively participate in the activities of the programme. There is also provision for an extensive publicity campaign to popularise the projects and stimulate participation. The use of Information-Communication-Technology (ICT) mechanism is being developed to support the process.

Finally, in promoting PPP, the selection of private sector partners would be via a competitive bidding process handled by an independent transaction adviser. It could be selective or open competitive bidding but would be transparent and satisfactory to all interested parties. In some cases where rare competences are required of the private sector partner, head hunting may be allowed.

The NAIP Financing Gap

The table below shows the content of the NAIP and its need for additional financing as imperative. If the direct financing requests per projects are used, the estimated financing gap ranges from N54.22 billion (US$360 million) in 2011 to N50.23 billion (US$334.9 million) in year 2013 totaling N235.094 billion or US$1.567 billion for a four-year financing. The financing gap (that is, the additional financing requested under NAIP) estimated for 2010 amounts to about 45 percent of the total approved capital budget of the FGN.

NAIP and the Financing Gap (N billion)

S/N	NAIP FUNDING REQUIREMENT	Million Naira				Total
	COMPONENTS / SUB-COMPONENTS	2011	2012	2013	2014	
1	Agricultural Productivity Enhancement	8930.08	7401.04	7697.04	5334.04	29362.2
2	Support to Commercial Agriculture	5342.2	5544.2	5882.2	5910.2	22679
3	Land and Water Management	17710	29210	28420	21900	97240
4	Linkages and Support to Inputs and Products Markets	8930.0	7401.0	7697.0	5334.0	29362.2
5	Programme Coordination, Monitoring and Evaluation	750	500	500	500	2250
	GRAND TOTAL	54223.9	66509.1	63085.5	50236.8	235094.2

Risks

The realization of the outputs and outcomes of the NAIP faces many challenges. Resolving these challenges provides the rationale for the NAIP. The NAIP recognizes the constraints to achieving its goals posed by the organizational and governance challenges, resource market failure (including land reform issues), limitation of existing technology in agriculture, infrastructure limitations and financial market failures. Attempts would be made during the period through the NAIP and the projects in the MTSS to resolves some of these challenges and the inherent risk they could pose for the plan itself. For example, the concern with land reform would be dealt with under the proposed land cadastral project under the crops section.

Beyond the endogenous "risks", two specific risk factors (and external to the agricultural sector) in the implementation of the NAIP are the uncertainties associated with the petroleum sector that accounts for the bulk of the country's foreign exchange earnings and the likelihood of budget instability characteristic of the upcoming federal government presidential elections. Both risks are not easily mitigated but could be dealt with by strengthening project monitoring modalities. Both risks are not easily mitigated but could be dealt with by strengthening project monitoring modalities. Finally, a notable exogenous risk could be the impact of climate change on the agricultural sector, but the nature of such an impact on the NAIP is unknown and would be studied.

CHAPTER 1

BACKGROUND

The main challenges currently facing Nigeria are to eradicate poverty, attain food security, achieve global agricultural competitiveness and realize sustainable management of her resources to achieve rapid economic development. The objective of this background chapter is to outline the importance of agriculture in the Nigerian economy, provide an overview of the performance of the agriculture sector, and outline the principal challenges that underpin the sectors past performance.

1.1 Importance of Agriculture for Food Security in the Nigerian Economy

Nigeria has a strong agricultural production potential. Of the country's its estimated 140 million people, about 65 percent live in the rural areas out of which about 80 percent derive their livelihood from agriculture and related activities. Prior to the emergence of petroleum as the dominant foreign exchange earner, agriculture was the mainstay of the Nigerian economy and the country was self-sufficient in most basic staples.

Nigeria has diverse and rich vegetation that can support the production of a variety of agricultural commodities (including most types of crops, livestock, fishery and forestry) to feed its increasing population. The country occupies a total land area of 92.4 million hectares (ha) which consists of 91.1 million ha of land and 1.3 million ha of water bodies as well as extensive coastal region that is very rich in fish and other marine products. Of the available arable land, only 32 million ha (or 46 percent) are cultivated, of which close to 90 percent is accounted for by households with less than 2 ha under cropping. Typical farm sizes range from 0.5ha in southern Nigeria to 4 ha in the north.

The country is yet to make significant use of its irrigation potential estimated at about 3.14 million ha. The area actually under irrigation is officially estimated at about 40,000 ha, which is less than 1 percent of irrigable land actually in use. The potential contribution of irrigated agriculture to total crop production is therefore enormous.

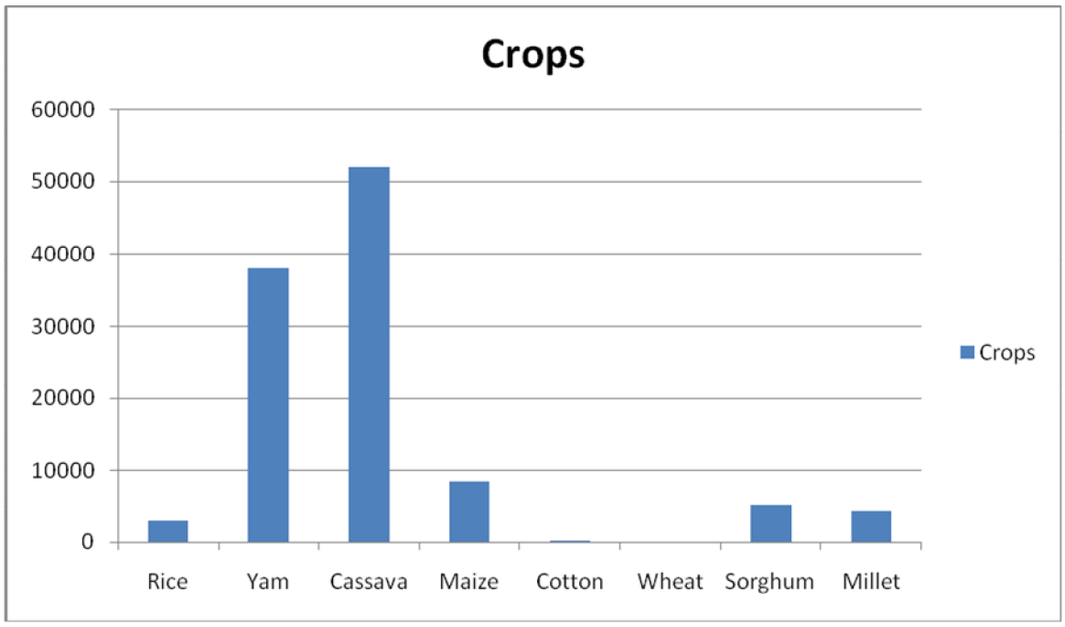
The country's growing urbanization and the quest for industrialization provide the demand for a considerable increase in the supply of agricultural commodities. Nigeria is the second largest economy in Africa in terms of aggregate gross domestic product (GDP) yet the country ranks 20 on the 2006 Global Hunger Index. It is estimated that about 54 percent of the population live below the national poverty line (which is close to the US$1 per day concept). Even though about 40 percent of household income is spent on food an estimated 65 percent of Nigerians are food insecure. Malnutrition is widespread, and roughly 40 percent of children under five

are stunted, 9 percent are wasted and 25 percent are underweight. Micronutrient deficiencies in vitamin A, iron and iodine are also widespread.

1.2 Performance of Nigerian Agriculture

Nigeria's economic performance until the recent past has been disappointing, more so in the critical agricultural sector. Though arable land in Nigeria is suitable for cultivating most types of crops, crop yields are far below their potentials. The main crops grown include cassava, yam, cocoyam, ginger (for which Nigeria is the world's highest producer), sorghum, millet, rice, maize, beans, groundnut, cocoyam and sweet potato. Figure 1 provides the production levels for some of the crops. These crops accounted for about 75 percent of total crop sales increasing from 81,276, 000 MT in 2004 to 95,556,000 MT in 2007. Other crops produced in the country include plantain, banana, ginger, cocoa, rubber, oil palm, Gum Arabic, cashew, mango, citrus, pulses and pineapples.

Figure 1: Production levels for Selected Crops (Latest data – '000 MT)



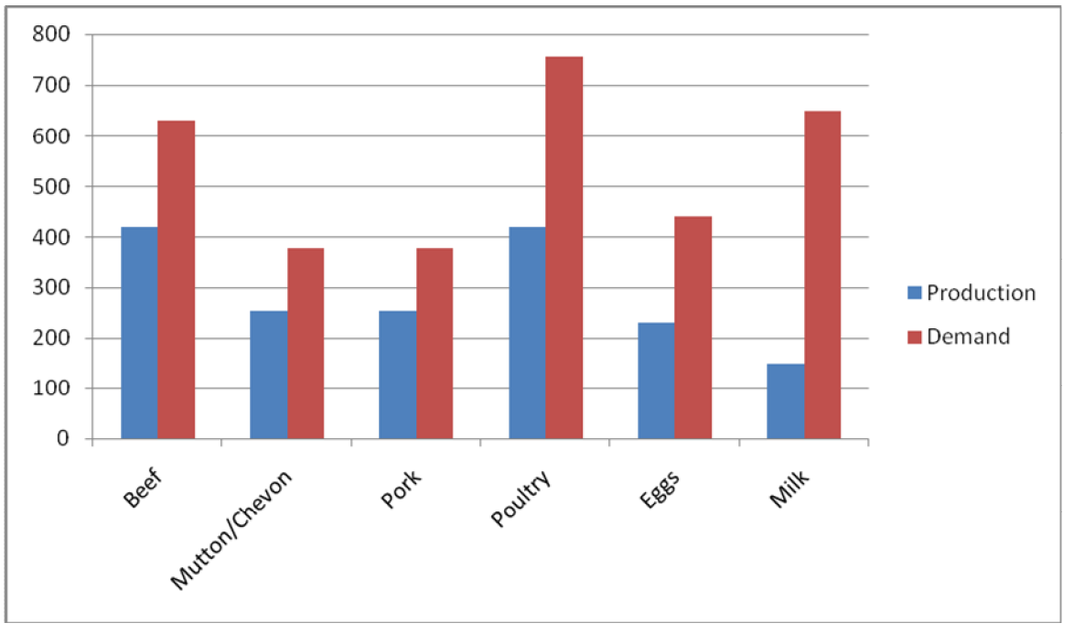
Source: FMARD

As a result of support by successive governments through various programmes the production of these crops increased. Agricultural growth rate during 2006-2008 averaged about 7 percent, exceeding the target of 6 percent established by the Comprehensive Africa Agriculture Development Programme (CAADP). Of the growth during this period crops, livestock, fisheries and forestry sub-sectors contributed 95 percent, 10 percent, 4 percent and 1 percent, respectively. The crop sub-sector is therefore the key source of agricultural growth in Nigeria In the livestock sub-sector, local supplies have been inadequate with an estimated 30

percent of livestock slaughters imported from neighbouring countries (Figure 2). The daily animal protein intake per head per day is currently estimated at 10 grammes compared to the FAO recommended 36 grammes.

Figure 2: Estimated Production and Demand Levels for Livestock Sector

(Latest Figures –'000 MT)



Source: Federal Department of Livestock, 2009.

Artisanal fisheries generate most of the domestic fish production. Although aquaculture has been clearly demonstrated to be an economically viable its potential has not been realized. It is estimated that in 2008 while the national demand for fish was 2.6 million, local supply was only about 600,000 MT resulting in an estimated annual import of about 700,000 of fish at US $500 million.

Non-wood forest products (NWFPs) such as honey, beeswax, medicinal plants, bamboo and rattan, contribute to the livelihood of rural people but the forest cover is diminishing due to uncontrolled deforestation traceable to the high demand for wood and wood products and for farming. Fuel wood and charcoal account for about 50 percent of the national energy consumption.

On the whole, agriculture recorded reasonable growth in the last decade. Growth rates during 2006-08 averaged 7 percent, exceeding the target of 6 percent established by the Comprehensive Africa Agriculture Development Program (CAADP), making agriculture the lead sector. However, its growth and that of the entire economy is well below the over 10 percent estimated as necessary for sustainable food security and poverty reduction. There continues to be a wide gap between output and demand and the country is still heavily dependent on imports of agricultural commodities, particularly fish, livestock products, rice, wheat and sugar due to underexploited potential.

1.3. Challenges of the Agricultural Sector

The challenges faced by the agriculture are related to the characteristics of the sector. First, more than 70 percent of the farming population in Nigeria consists of smallholder farmers, each of whom owns or cultivates less than 5 ha of farmland (NARP 1994), but together accounts for 90 percent of the total farm output. Many such farms are fragmented and scattered in different locations because of inadequate access to farm land under the current land tenure system.[1] Of the available arable land, only 32 million ha (or 46 percent) are cultivated. This has serious negative implication not only with respect to higher transaction costs but also makes mechanization difficult.

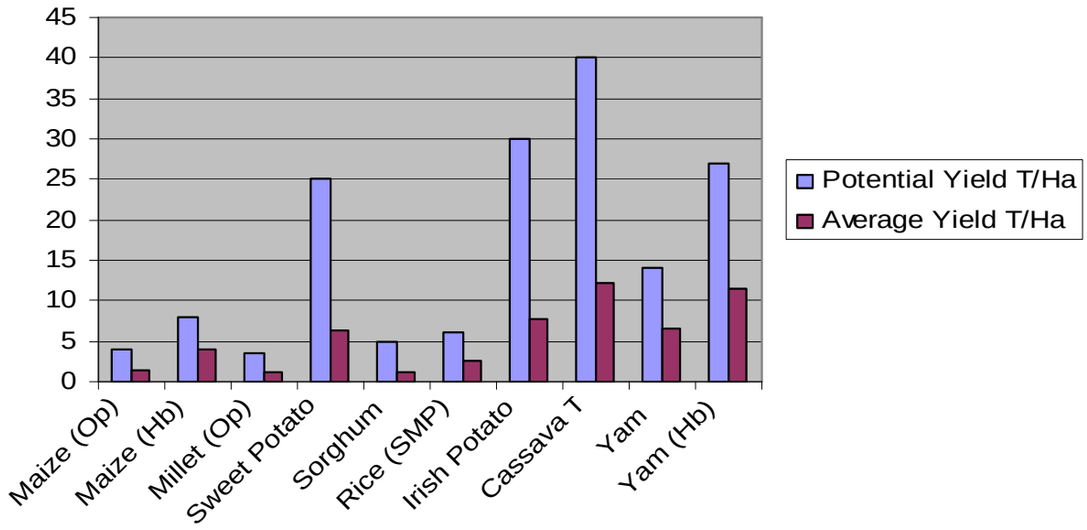
Second, though the arable land in Nigeria is suitable for cultivating most crop types, crop yields are far below their potentials. Nigeria recorded in the past, on average, 4 tonnes of agricultural product per hectare compared to 13-14 tonnes per hectare in other countries of similar climatic pattern. Thus, most Nigerian farmers operate at the subsistence level, with marketable surplus ranging between 0-25 percent depending on the household size. Farmers with large household sizes tend to have marketable surpluses that are usually lower than farmers with small household sizes.

Third, as a result of the first two factors, the growth of the sector over the last ten years may be attributed mainly to acreage expansion and favorable weather. But dealing with the uncertainty of rain-fed agriculture is increasingly becoming a challenge. This is becoming a serious concern in view of climate change that is causing seasonal changes and making it increasingly difficult for non-irrigated farmers to plan on the basis of past trends. Coupled with the weather related risk is the uncertainty of pest and disease outbreaks that are capable of wiping out entire farms. In addition, price instability in the harvesting seasons is also outside the control of farmers. Crop insurance exists in Nigeria but it imposes an extra cost on

[1] The land tenure system is considered in need of reform. A project is identified in the ongoing government investment programme (the Medium-term Sector Strategy, 2010) to review the existing land tenure system. The issue identified here pertains specifically to fragmentation of land.

resource-poor farmers and is only patronized when imposed by financial institutions as a condition for formal credit.

Figure 3: Crop Sector Yield (MT/Ha)



Finally, agricultural services are weak. The supply of agricultural inputs has been generally sporadic. Fertilizer consumption in Nigeria, which is estimated at 7kg per ha, is one of the lowest in Sub-Saharan Africa (SSA). Less than 10 percent of irrigable land is under irrigation. Farmers have had limited access to credit and the existing extension services are grossly inadequate. It is estimated that there is currently one extension worker per 25,000 farm households in Nigeria, compared to the Food and Agriculture Organization (FAO) best practice estimate of one to 500-1000 farm households. There are also about 30,000 tractors for all 14 million farming groups/households in Nigeria. In terms of agricultural processing, Nigeria loses significant value of between 15-40 percent of its post-harvest output due to its inability to process most of the farm produce.

As a result, the challenges faced by agriculture in Nigeria could be grouped under five categories:

- Organizational and governance constraint, which relates to smallholdings, dispersed nature of farm settlement, and unorganized nature of farmer communities. Associated with the organizational deficiencies are policy ambiguities at all three levels of government.
- Resource market failure, which relates to land and labor market inefficiencies, the lack of enforceable ownership and control over land, and rent-seeking behavior of associated public agencies.
- Limited access to improved technologies in the form of improved seeds, cuttings, breed, vaccines and agrochemicals, etc and the use of mainly hoes

and cutlasses as the principal implement for crop agriculture at the small-holder level. Related to technological constraints are poor research and extension services as well as weak linkages with farmers for the uptake of innovations in areas such as seeds, pest and diseases controls. These limitations also apply to livestock and fisheries.

- Infrastructure inadequacies, which include poor road network particularly feeder roads, markets and storage/processing facilities as well as inadequate irrigation facilities which limit agricultural production to only the wet season in many parts of the country. Some 80 percent of the respondents across the country in a 1995 survey identified infrastructure as the most critical constraint to the development of agriculture in Nigeria.
- Financial market weaknesses, which may be attributed to inadequate and poorly targeted credit and the absence of competition in the supply markets as well as a well-defined effective demand structures as a result of low income and poverty.

CHAPTER 2

STRATEGIC FRAMEWORK FOR THE INVESTMENT PLAN

Resolving the challenges faced by the agricultural sector is the target of the federal, state and local government programmes for agriculture. This review focuses mainly of the FGN policy responses, which have implications for the functioning of the state and local governments and the private sector. It also deals with attempts in reaching the vulnerable[2]

2.1 Government Development and Food Security Agenda

In response to the challenges posed by the need to accelerate economic growth to support poverty reduction and attain food security, the FGN has made agriculture one of its major pillars of its strategic vision for growth and development. The agricultural sector is central to the government's seven point agenda (SPA), which identifies the core areas to revitalise the economy.[3] The SPA covers power and energy, food security and agriculture, wealth creation and employment, mass transportation, land reform, security, and qualitative and functional education. The role of the agricultural sector in the SPA is to: (i) attain food security, (ii) increase production and productivity, (iii) generate employment and income, and (iv) expand the export base and reduce food imports thereby freeing resources for critical infrastructure development and delivery of social services. To complement the overall 8 percent growth target in the economy for 2010-2020, the Government has set a target of 10 percent annual growth rate for agricultural sector, compared to the 6 percent annual rate agreed by CAADP. To achieve this goal FGN plans to put in place an enabling environment that is conductive to high agricultural growth and enhancing private sector investments in agriculture. These are expressed in the National Food Security Programme (NFSP) document and the Five-Point Agenda for Agriculture.

The NFSP document (2008-2011), which was launched in response to the global food crisis of 2007-08, and under the directives of the SPA, forms the basis for the NAIP. It was derived by working closely with all stakeholders in agriculture and water sector in arriving at a private sector led growth agenda, where the public sector plays a facilitating role. This chapter sets out the strategic vision and objectives (goals) of the of the agriculture sector which underpin the medium-term sector strategy (MTSS), outlines the planning process as agreed upon at the Strategic Workshop of the Federal Ministry of Agriculture and Water Resources (FMAWR)

[2] The Government's agricultural policy is contained in the National Food Security Program, 2008-2011 (Federal Ministry of Agriculture and Water Resources).

[3] The SPA incorporated the policy objectives and agenda of earlier government initiatives, including the National Economic Empowerment and Development Strategy (NEEDS), which was the country's Poverty Reduction Strategy Paper (PRSP).

held during June 29 to July 2, 2009, and describes the structure of the investment plan.

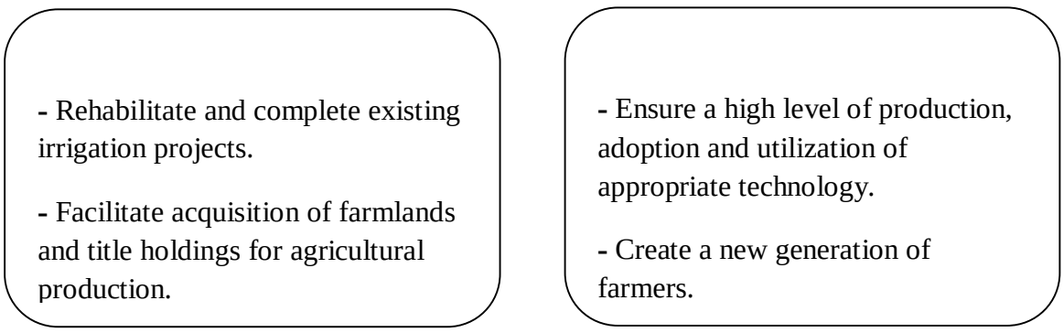
2.2 Vision and Objectives

The vision of the Federal Ministry of Agriculture as enunciated in the NFSP document is to ensure sustainable access, availability and affordability of good quality food for all Nigerians and to be a significant net provider of food to the global community. Specifically, in the short to medium term the Ministry's objectives are to:

- Secure the food and feed needs of the nation.
- Encourage the generation of national and social wealth through greater exports as well as import substitution.
- Enhance the capacity for value addition leading to industrialization and employment opportunities.
- Ensure efficient exploitation and utilization of available agricultural resources.
- Promote the development and dissemination of appropriate efficient technologies for rapid adoption.

- These were superseded by the National Vision 20:2020,[4] which sought to have a modern technology enabled agriculture sector that fully exploits the vast agricultural resources of the country, ensures national food security and contributes significantly to foreign exchange earnings. To this effect, the following strategic goals (Figure 4) have been outlined for agriculture for the next ten years (2010-2020):

Figure 4: Strategic Goals of the NV20:2020



[4] The NV20:2020, the latest policy framework of the Government, aims to make Nigeria one of the 20 most advanced economies by 2020. It brings together all relevant policies as related to the major sectors of the economy and highlights the primal role of agriculture as the engine of growth and poverty reduction.

2.3 The Priority Setting and Planning Process

In view of the above, the FMAWR decided that the planning process would be guided by the 5-Point Agenda, which is largely consistent with the four CAADP principles (see CAADP Nigeria Briefs 1-5). The 5-Point Agenda is characterized by the following five pillars (Table 1):

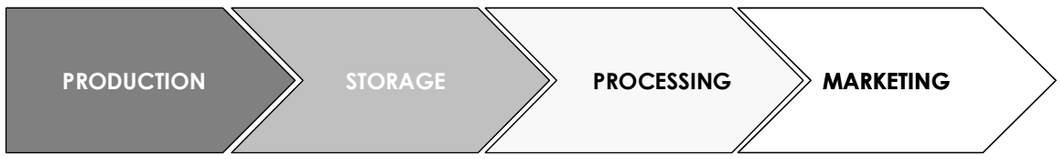
Table 1: The Five-Point Agenda and the CAADP Principles

5-Point Agenda	CAADP Principles
1. Developing Agricultural Policy and Regulatory System (DAPRS): This involves the strategic review and reform of key institutions in the agricultural sector, agricultural policy, advocacy framework, proactive legislation, sound policy on financing agriculture (credit and grant support) towards market competitiveness and an effective regulatory framework including fiscal incentives and tariff regimes to support backward integration.	(iv) Strengthening agricultural research, technology dissemination and adoption.
2. Agricultural Commodity Exchange Market (ACCOMEX): This will involve the establishment of an agricultural commodity exchange market with the objective of achieving efficient marketing and price information systems, institutional strengthening of private sector agro-input suppliers; ensuring accessibility, availability, affordability of agricultural inputs; agro-aviation development to facilitate the evacuation of agricultural produce to domestic and international markets; agro export handling/conditioning centres for the processing, packaging and labelling of produce to meet international standards; Guaranteed Minimum Price (GMP) mechanisms; much needed storage infrastructure in view of the large volume of produce involved; and Agricultural Information Management System (AIMS) to ensure the availability of information for the buyers, sellers and farmers on type, location and price of commodities at any particular point in time.	(ii) Improving rural infrastructure and trade-related capacities for market access. (iii) Increasing food supply and reducing hunger.
3. Raising Agricultural Income with Sustainable Environment (RAISE): This requires the focus on the development of the rural energy, rural markets, schools, communication, water and sanitation, transport and health as basic components for addressing the challenges of small and medium scale agri-business development in the area of value chain infrastructure development and infrastructure for sustenance of the environment. RAISE has two components: RAISE Small-Scale is a deliberate approach for integrating rural agribusiness development with social-economic district development, commencing with 400 sites; RAISE Medium-Scale targets young educated, unemployed persons to replace the present ageing farming groups as an out-grower based project, commencing with twelve sites.	(iii) Increasing food supply and reducing hunger.
4. Maximising Agricultural Revenue in Key Enterprises (MARKETS): This will create the necessary market infrastructure as well as implement the Guaranteed Minimum Price (GMP) policy, to propel the development of the agricultural sector by linking production to markets. The ultimate objective is to attain sustainable markets ecosystem, including agro-processing plants, cold chain stores, community warehouses, food centres in major cities, model highway markets and agri-business development centres	(ii) Improving rural infrastructure and trade-related capacities for market access.
5. Water, Aquaculture and Environmental Resource Management: This involves the development of 1,500 targeted RAISE sites with small dams and irrigation infrastructure facilities; flood control; early warning systems; agricultural cadastral through auto-photo mapping of farmlands; migratory pest control; bio-energy development; carbon credit project through a forestation and reforestation.	(i) Extending the area under sustainable land management and reliable water control systems.

2.4 Strategic Approaches

The approach adopted by Nigeria addresses every component of the entire agriculture value chain for crops, livestock (including poultry) and fisheries. The agricultural value chain is defined as the full sequence of activities or functions required to bring a product from conception, through the intermediary steps of production, transformation, marketing, and delivery to the final consumers. Figure 5 illustrates the sequence of the value chain. In this process, the Federal Government (through its MDAs) sets the direction, while the organized private sector as well as the State and Local Governments drive execution.

Figure 5: Agriculture Value Chain



With regards to production, Nigeria's approach is to be selective. Thirteen crops (cassava, rice, millet, sorghum, wheat, maize, sugar, cow peas, soya beans, tomato cotton, cocoa, and oil palm) have been selected for special focus. These crops also meet the criteria of size, linkage effect, "pro-poorness" and market opportunities established CAADP brochures. There are several approaches that may be used to influence increases in crop production in Nigeria either directly or indirectly. The interplay of these approaches for increased production is depicted in the schematic illustration below (Figure 6), which highlights the principal challenges of the sector in terms of the limitations of the land use act, poor energy and industrial capacity, weak fiscal policies, and poor transport and distribution systems, which would be tackled under the NAIP. Separate approaches have been developed for livestock and fisheries and described in detail in the NFSP document.

The objective of improving food storage system as a means of guaranteeing food security is to ensure stability in food supply and avoid price volatility, improve food quality and adequate local supply of products for industrial processing, and to contribute to global supply (importantly in meeting regional food commitment in the context of ECOWAP/CAADP).The factors consider in order to achieve these objectives are: improving the nation's strategic food reserve; improving farmers' warehousing capacity; and establish ddistribution centres.

The role of processing in achieving food security cannot be over-emphasized, especially in ensuring the availability and affordability of food. Key initiatives will be commissioned to improve the food processing capacity in Nigeria. The main activities to be promoted under crops include: agro-industrial parks; support for small-scale processors; and rehabilitation of existing processing facilities.

An efficient market infrastructure is a precondition for improved agricultural output, by providing an enabling environment that helps to generate stable prices to producers and consumers. Figure 7 outlines the basic structure of such a framework identified in the NFSR document. It outlines the nature of initiatives and points to the likely stakeholder who will be responsible for carrying them out. Principal elements of the program include: setting of guarantee minimum pricing; construction of product distribution/marketing centres; undertaking of investment in transport network; establishment of agriculture commodities boards; and re-engineering the concept of Commodity Exchange.

Figure 6: Approaches to Increased Agriculture Production in Nigeria

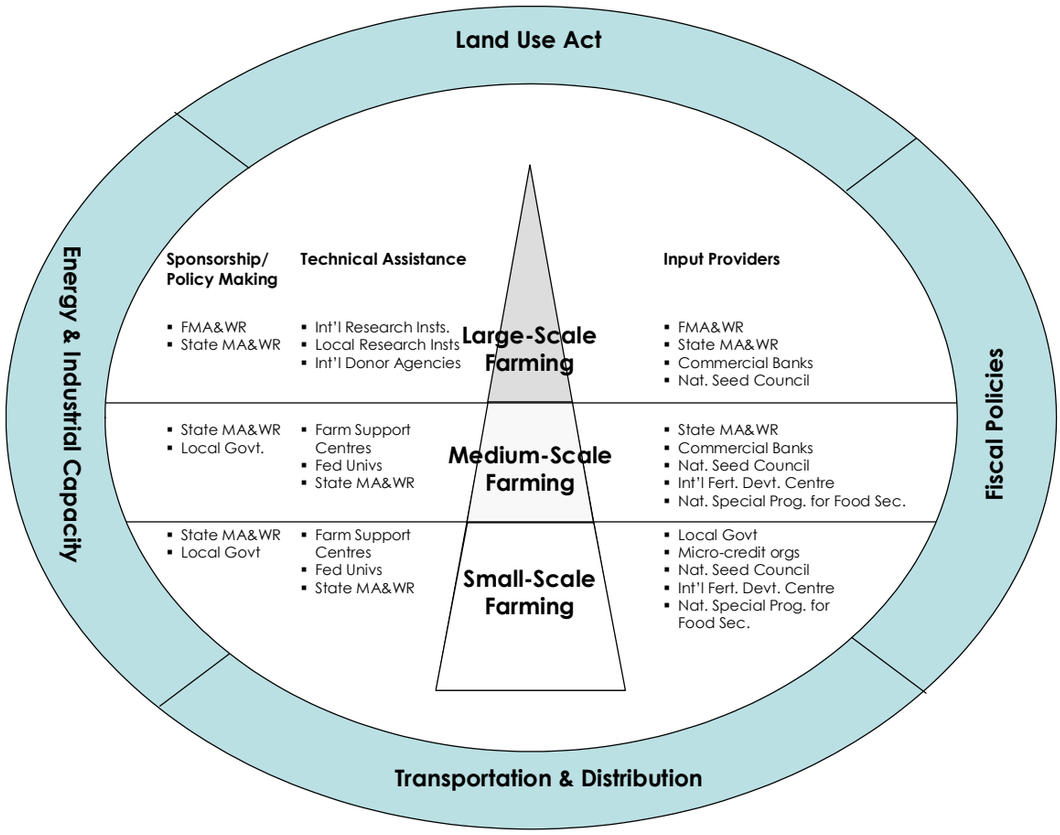
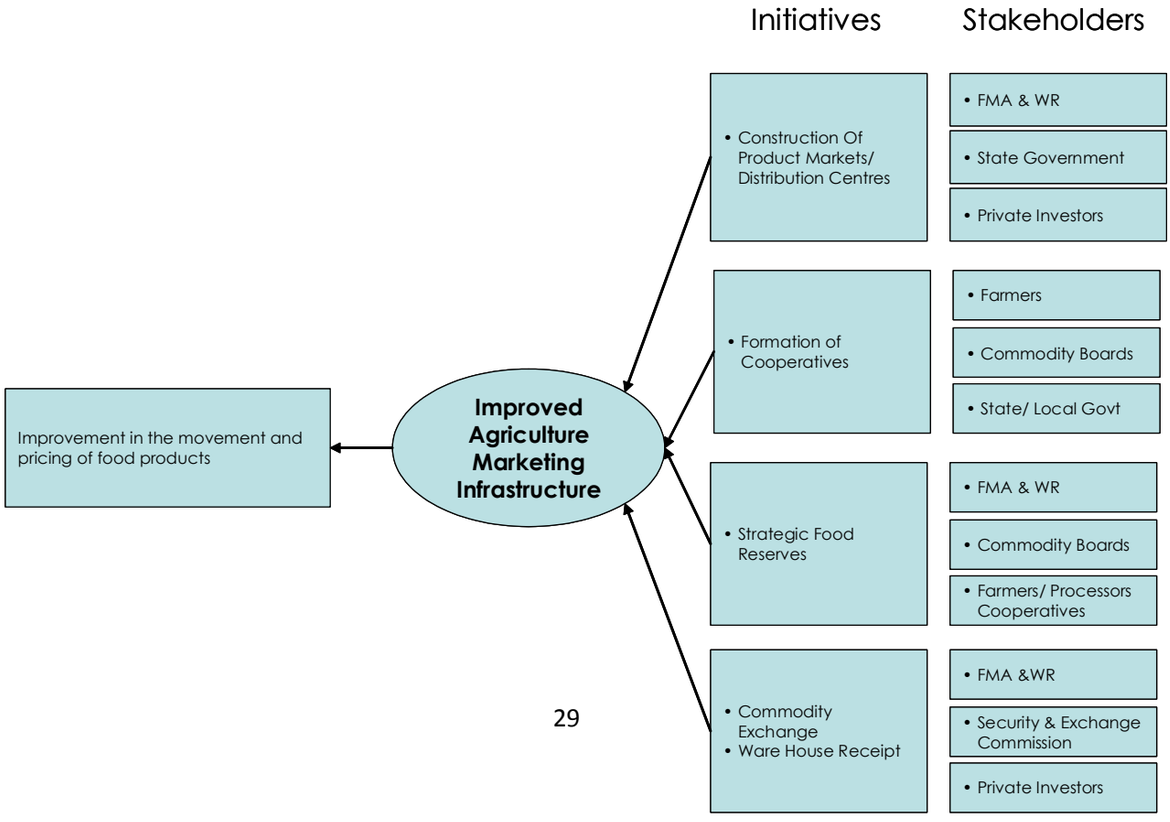


Figure 7: Improvements in Agriculture Marketing



2.5 Targeting and Reaching the Vulnerable

The vulnerable in Nigeria agriculture are characterized by poor resource base, physical disability, low productivity, poor access to extension, credit and other subsidized agricultural inputs. The vulnerable (including the aged and female-headed households) lack common forum or umbrella association to push a common agenda and this often reduces their participation in decision making process. The vulnerable also have limited access to market opportunities.

The investment needs of the vulnerable are identified through the community driven development (CDD) approach being adopted in programme and project formulation. CDD approach encourages bottom-up decision making through participatory rural appraisal. Special considerations and concessions are given to the vulnerable in project design and implementation through beneficiary selection, extension delivery, government subsidies, etc. The strategies through which the Agriculture and Rural Development Policy is to be implemented include, among others:

- Promotion of rural productive activities through provision of rural financial services, agricultural research and extension delivery and promotion of resource-based, small-scale productive activities aimed at creating wealth and generating gainful employment in rural areas;
- Support to human resources development through community organisation and mobilisation, community-based mass literacy, training and skills development;
- Improvement of rural infrastructure such as feeder roads, stock routes and jetties, water supply and sanitation; markets for local goods; and
- Programmes for special target groups among rural dwellers, such as women, youth, the elderly, the retired and victims of emergency natural disasters

CHAPTER 3

THE PLANNING PROCESS

The planning process is based on a series focus group discussion involving stakeholders from farmer associations; community based organizations (CBOs); non-governmental organizations (NGOs); private sector representatives; women groups; research organizations and institutions; democracy groups; government ministries, departments and agencies (MDAs); up to local, state and federal legislators. Project proposals are usually submitted by the MDAs at the state and federal levels and prioritized through a series of committees at the FMARD and the National Planning Commission (NPC), before "stakeholder verification" and subsequent parliamentary consideration and approval. Thus, while project selections are not necessarily initiated at the grassroots, substantial grassroots consultations characterize the process. The NAIP was subjected to stakeholder verification in June 2010.

3.1. The National Agricultural Investment Plan

The National Agricultural Investment Plan for Nigeria has two main components: (a) the MTSS which comprises all projects under the auspices of the FGN (for which financial resource allocation and release are approved by both the House of Representatives and the Senate), but executed by the FMARD, its department and agencies (MDAs), research institutions, authorities and commissions, and the private sector (through the Public-Private-Partnership, PPP); and (b) the Partnership Programmes, comprising projects fully or partially financed by donor agencies but are either fully executed by the respective donor or jointly with the FGN or the states and private sector.[5]

3.1.1. The MTSS: The Medium-Term Sector Strategy is built on a three-year rolling plan framework, currently covering 2010-2012 (with the updating for 2011-2013 underway). The drafting of the MTSS passes through 15 steps which include the formulation of sector planning teams (SPTs) to review existing policies and projects and to establish new projects. The SPTs have the responsibility of drafting the MTSS and it is made up of 10-20 members (including the Minister, Permanent Secretary, heads of core public enterprises, senior planning officers and senior budgeting officers). The team is also expected to include two members of the Senate and two members of the House of Representatives who have oversight functions for FMARD, one or two members from the civil society (representing the NGOs or the CBOs), four Budget Office of the Federation (BOF) officials, one NPC official, one

[5] The difference between projects under the MTSS and those of the Partnership Programmes is how they are initiated. The MTSS is initiated using country systems, while partnership programmes are initiated by relevant donors in consultation with the federal, state and local governments. Development Partners also support projects under the MTSS. The projects reviewed under the NAIP are essentially those initiated by the MTSS.

Bureau of Public Procurement (BPP) official, one Office of Senior Special Assistant to the President on the MDG (OSSAP-MDG) official, and one senior expert.

The 2010 MTSS contains 1336 projects (programmes), and tasks,6 of which 1055 are ongoing (that is, initiated in previous years) and 281 new projects (to be initiated in 2010). Some 258 projects in the MTSS are under suspension, pending review on grounds varying from contract problems, cost overrun and poor performance in execution. Table 2 summarizes the estimated cost of the MTSS (2010-12) by 15 programme groups.

When the programs are grouped in line with the 5-Point Agenda, Figure 8 shows the following expenditure priorities. Cost estimates on Agenda 5 (dealing with water and land management – CAADP pillar 1) are much higher than those of other strategic priorities, in part because of the lumpiness of such investment. The higher expenditure priority also reflects the FGN's effort to complete, as a matter of urgency, existing irrigation projects (per NV20:2020). In general, each priority agenda is accorded close to an equal budget priority; but except for 2010, substantial resource gap emerges relative to the medium-term budget framework (MTBF) indicative ceilings.

The budget handles the resource gap by reducing allocation for a large group of projects, but especially for those experiencing implementation problems. Through a number of budget committees, in consultation with the NPC and MDAs, ongoing projects are screened on an annual basis using performance criteria discussed below under monitoring and evaluation (M&E). As such, the MTSS is subject to the following challenges:

- Budgetary resources allocated to many of the projects are grossly inadequate; in some cases, the amount allocated is less than half of what was requested or none at all, thereby halting project implementation.
- Releases during the first two quarters are generally very low or none at all, thus hampering the ability of the implementing agencies to executive projects according to schedule.
- Despite the resource constraints, a significant number of un-programmed projects are supported in the capital budget. Of the N150 billion appropriated for the 2010 capital budget, N13 billion is accounted for by projects not in the MTSS.

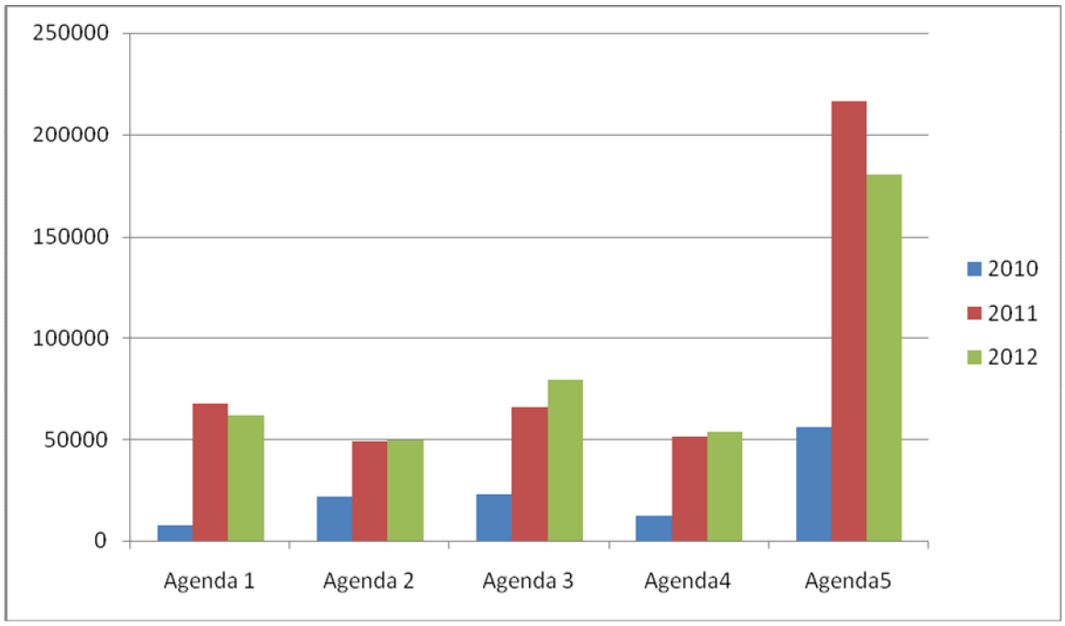
[6] Project and programmes are defined as multi-year investment activities, usually with multiple components; while tasks are single year activities that tackle specific issues and usually with a single component.

Table 2: Medium-Term Sector Strategy (2010-12) - Estimated Cost (N million)

Program Group	2010	2011	2012	5-PT Agenda
1. Policy planning & database management	3,250	10,748	8,685	1
2.Capacity building, appropriate technology development & private sector participation	2,974	42,559	37,659	1
3.International cooperation, collaboration & partnership	10,082	3,987	3,718	2
4.Hydrological & Hydro-geological	617	4,510	3,733	5
5.Dams & Irrigation	47,851	165,689	133,366	5
6.Sustainable Integrated Water Resources Management (IWRM)	1,248	8,074	5,887	5
7.Trans boundary Water Resources Management	113	766	765	5
8.Sustainable integrated agricultural production growth	2,872	41,072	42,611	4
9.Research & extension services	1,289	14,251	15,207	1
10.Agricultural credit, farmers cooperatives, rural infrastructure, youth & women involvement	23,094	65,602	79,644	3
11.Agricultural Processing & Storage	157	4,593	5,525	2
12.Agricultural input & commodity marketing development	11,648	40,150	40,488	2
13.Guaranteed Minimum Price (GMP)	9,000	10,108	10,881	4
14.Sustainable agricultural land management	4,709	36,906	36,077	5
15.Agricultural land accessibility, ownership and Land Use Act	1,510	830	640	5
Total Estimated Cost	120,419	449,851	424,893	
MTBF Indicative Ceiling	120,000	108,500	117,700	
Resource Gap	419	341,351	307,193	

Source: FMAWR, MTSS (2010).

Figure 8: MTSS Expenditure Priorities based on 5-Point Agenda (N million)



3.2. The Regional Perspective of the NAIP

The National Agricultural Investment Plan, consistent with the regional integration programme in West Africa (ECOWAS), participates in a number of regional

programs. Tracing from crop agriculture through research (the main pillars of CAADP), the following regional programs highlight the regional perspectives of the NAIP:

- The Multinational NERICA Rice Dissemination project is a regional project, being implemented in Nigeria and six other West African Countries with AfDB's financial support. In Nigeria, the collaborating institutions include the National Agricultural Seed Council (NASC), the National Cereal Research Institute (NCRI), Niger State, the African Rice Center (ARI), as well as the Agricultural Development Programmes (ADPs) of the six participating States.
- The Vessel Monitoring System (VMS) has the objective to (i) prevent/stop illegal fishing activities such as IUU, poaching and transshipment, which costs Nigeria about $50m annually; (ii) harmonize Nigeria's VMS processes with that of her neighbours that are implementing the VMS in their countries; (iii) enhance and improve inter-agency and information sharing for the promotion of good fishing practices among stakeholders in the maritime sector, and relevant security agencies; and (iv) curb activities of Sea Pirates in the Nigerian marine waters.
- The Fertilizer control project aims to facilitate and promote the integration of the national fertilizer market into the larger regional (West African) market. The project is designed to be executed by the Fertilizer Department of the FMARD, the Standards Organization of Nigeria (SON), NAFDAC, fertilizer importers, blending/manufacturing companies and four approved laboratories – IAR/ABU Zaria, UNN Nsukka, NFDC and Rotas Soil lab – Ibadan.
- The agricultural quarantine services involve collaboration between Nigeria and neighboring Francophone countries so as to enhance joint action against foreign pests. Programs to share information on border diseases are central to the collaboration, including the sharing of training facilities.
- Finally, in the area of research, through the West Africa Agriculture Productivity Programme (WAAPP), Nigeria seeks to establish specialized centres and laboratories for crops, livestock and fisheries agricultural biotechnology research for the focused and intensified production of high yielding, consistently conformational and disease-resistant species of crops, livestock and fishery with due consideration given to all ethical concerns.

CHAPTER 4

4.0 KEY COMPONENTS OF THE NAIP

This chapter describes the structure of the National Agriculture and Food Security Investment Plan (NAIP), outlines the principal components under the NAIP, and highlights their expected outputs and outcomes as well as the financing needs from partners. The results and resource framework, as well as the consolidation of the financing gap, is undertaken in subsequent chapters. The NAIP concentrates on five key components that are critical to meeting the country's food security objectives. The components comprise few important sub-components in the forms of ongoing programmes / projects and developmental interventions which requires up-scaling in terms of geographical coverage, increased number of beneficiaries and household and enhanced output to adequately meet the domestic food and nutrition needs and well as enough surplus for foreign exchange earning through export. The challenges and constraints to productivity of small-holder farmers, the vulnerable, women in agriculture and civil societies are well addressed through the provision of support services including inputs (fertilizer and seeds), quarantine services, irrigation infrastructure, promotion of farmer associations (cooperatives) and research and development. Processing and marketing infrastructure support are also provided in conjunction with other agencies of government (notably the Ministry of Industry and Commerce and the Ministry of Transport). Environmental mitigation measures are built into the components of the NAIP and are executed and monitored in conjunction with Federal Ministry of Environment.

4.1. Core Components

The core components of NAIP are, namely: (i) Agricultural Productivity Enhancement, (ii) Support to Commercial Agriculture, (iii) Land Management and Water Control, (iv) Linkages and Support for Inputs and Product Markets and (v) Programme Coordination, Monitoring and Evaluation. They cover activities required to effectively meet the full value chain and food security concerns.

4.2 Component 1: Agricultural Productivity Enhancement

4.2.1 The main goal of this component is to boost output of food commodities through strategic interventions in the production, processing, storage and marketing of staple and cash crops, fishery and livestock products. The sub-components (vide; table 3) are designed to provide the basic input needs of small scale farmers in the up and downstream activities of varied agricultural enterprises with especial focus of enhanced productivity for higher income, job and wealth creation and household food security. The interventions under this component will engender higher output in domestic and industrial crops of rice, cotton, cassava, groundnut, oilpalm, cocoa, cowpea, soyabean, sesame, horticultural and tropical fruits. It is targeted at rapid dairy production and livestock breed improvement; fish disease and quality control

and provision of essential services of extension delivery, improved seeds, fertilizers and biotechnology.

4.2.2 Crop production is central to Nigeria's food security strategy. In addition, the average annual growth rate of about 8 per cent achieved in recent years (2006-08) in the agricultural sector was propelled largely by crop production. In order to sustain and increase the current level of production and productivity of the crop sector, the programmes of the FMARD are directed at strategies such as adoption of improved agriculture technology, price stabilization mechanism, improved irrigation scheme and efficient extension schemes. Presently, the projects of significant importance to food security, poverty alleviation and overall improvement in the livelihoods of households in the agricultural sector are implemented under a coordinating instrument called the National Programme for Agriculture and Food Security (NPAFS). It comprises the National programme for Food Security (NPFS), National Fadama III Development Project, IFAD-assisted Community Based Agriculture and Rural Development Programme (IFAD-CBARDP) in seven northern states, IFAD assisted Rural Finance Institution Building Programme, AfDB-supported Community Based Agriculture and Rural Development Programme (AfDB-CBARDP) in five northern states, Multinational NERICA Rice Dissemination Project and the IFAD-supported Community Based Natural Resource Management Programme (CBNRMP) in the Niger Delta.

4.2.3 All seven projects attract great priority in the MTSS and are aimed at developing smallholder agriculture on economically and environmentally sustainable basis. Out of the seven projects, the three are selected for upscalling under the agricultural Productivity Enhancement Component of NAIP including (i) the National Programme for Food Security (NPFS), (ii) the National Fadama III development project and (iii) the Multinational NERICA rice dissemination project. These projects address the policy goals of CAADP, namely investment in land and water resources, small rural infrastructure, food security and agricultural research and extension.

4.2.4 The objective of the Agricultural Productivity Enhancement Component is to foster the development of smallholder agriculture and income generation in the rural areas, improve national food security and reduce poverty. The specific objectives include:

(a) Increase in incomes of rural farm households through increases in agricultural productivity, diversification and sustainable use of natural resources;
(b) Enhancement of food security of consumers through improved availability of food and access to a variety of foods and increase income of producers attained through efficient marketing;
(c) Enhancement of farmers' and consumers' access to support services such as extension, credit, nutrition and health education; and

(d) Fostering the participation of the poorer section of the rural population in the development of the community.

4.2.5 The targeting mechanism is in favour of vulnerable groups as well as actual food insecure people. The primary concern is the poor small scale producers and entrepreneurs, particularly women, youth and the physically challenged. Clearly defined eligibility criteria are in place to forestall elite capture.

4.2.6 Direct benefits would arise from improved land and water use, higher crop productivity through the production of improved seeds, reduction in storage losses, and value addition in rural areas through processing and packaging, and incremental animal and fish production and catches. This would enhance the income of the farmers and increase household food security in conjunction with improved nutritional standards. The first group of primary beneficiaries of the project will be 70,000 farm households, which are participating in the site development programme. With an average of 7.5 persons per household, this would result in improved livelihoods for 525,000 rural dwellers. Under the outreach activities about 785,000 farm families would be covered during the project period amounting to approximately 6 million rural dwellers, most of whom are poor.

4.2.7 In the on-going National Food Security Project, the development partners (DPs) are contributing 40 percent (US$145.6m) of the US$364m estimated cost in the form of co-financing and technical support. So far support has come from three DP agencies - the African Development Bank (AfDB), Islamic Development Bank (IsDB) and Arab Bank for the Economic Development of Africa (BADEA) with a total contribution of US$70.0 million leaving an external funding gap of US$75.6m. The donors' contribution under NAIP will be used to finance the gap in NPFS for upscalling the activities of NPFS in the present 327 LGCs and expanding to the remaining 447 LGCs.

4.2.8 The Third National Fadama Development Project (Fadama III) aims at reversing the trend of heavy dependence on rain-fed agriculture by exploiting the enormous irrigation potential of the country to sustainably increase the incomes of rural land and water users and to reduce land degradation. Implementation commenced in March 2009 in the 36 States of Nigeria and the Federal Capital Territory (FCT) and will close in 2013. The project is being supported by the World Bank while all the three tiers of government provide counterpart funding.

4.2.9 The proposed up-scaling therefore is necessitated by the need to touch the lives of at least half of the population measurably and also reaching all the 774 LGAs in Nigeria. Fadama III currently works in 656 LGAs. This is realizable in view of the well established structure of the Fadama Development Project; the past success recorded in Fadama I & II as well as the components being implemented. As part of major value chain enhancement in the agro-production process, the up-

scaling will specifically invest in major crop processing and marketing (including export) in selected areas of the country with comparative advantage in the production of such crops. Some of such crops include cassava, cereals and oil palm. In the bid to encourage the fast growing aquaculture business in Nigeria, the up-scaling programme will also invest in the funding of fish feed production using extruders to be located in at least 3 centres. Another major area of intervention being considered is the livestock (cattle and small ruminants) upgrading project. Additional funding support totaling US$72.15m is required for the expansion.

4.2.10 The Multinational NERICA Rice Dissemination project is a regional project, being implemented in Nigeria and six other West African Countries with AfDB's financial support. In Nigeria, the collaborating institutions include the National Agricultural Seed Council (NASC), the National Cereal Research Institute (NCRI), Niger State, the African Rice Center (ARI), as well as the Agricultural Development Programmes (ADPs) of the six participating States.

4.2.11 The Project focuses on supporting small scale rice farmers to improve production and their household incomes through the transfer of NERICA varieties and complementary technologies. The goal is to contribute to poverty reduction and food security through enhance access to high yielding NERICA rice varieties, thereby enhancing rice production and supporting import substitution. The project has four intervention areas, namely, technology transfer, production support, capacity building and project coordination. It is estimated that 65,000 farm families will directly benefit from this project. The NERICA intervention under NAIP will result in cultivation of additional 108,000 ha with estimated production of over 162,000 metric tonnes of rice by the end of the project life in four years. Approximately US$10.0 million is required for the extension of the project.

4.2.12 Other vital sub-components of Agricultural Productivity Enhancement Component which will bring about rapid increase in crop outputs include the:

- Support for the horticultural sector, with the objective of promoting the processing and preservation of fruits, vegetables, etc.; improving and developing relevant skills in the sector; improving fruits production through rehabilitation and development of orchards to supply raw materials; and helping diversify the economy to earn and conserve foreign exchange.

- Promotion of cotton production aimed at reviving, developing, repositioning and implementing sectoral strategies and policies for the cotton textile garment chain; and upgrading and supporting productive capacities; enhancing capacities of support institutions and improving production quality of the cotton/textile/garment subsectors.

- Support farmers to increase their groundnut production through improved methods by the provision of improved groundnut seed, capacity building of

farmers in modern production and processing techniques, and enhanced extension services. Support will also be provided for the development/installation of appropriate processing technologies to serve as the basis for cottage industries by women in the areas of processing groundnut oil and cake from groundnut seed, as in Yobe State.

- Establishment and development of improved agricultural tools aimed at reducing the drudgery inherent in small scale agriculture, improving farm productivity and enhancing food security, increasing agricultural production of small and medium scale farmers through the application of draught animal power and improved hand tools.

4.2.13 Specific interventions in crop production and processing that will attract funding under NAIP include:

- Strengthening of extension services by training 10,000 youths as private sector extension workers by 2013.
- Increasing functional irrigated land from 40,000 ha. to 200,000 ha by 2013.
- Improving tractor density from 0.2 hp/ha. To 0.3 hp/ha through the provision of 10,000 tractors annually, 2011 to 2015.
- Promoting on-farm storage of agricultural produce.
- Encouraging states and LGAs to maintain buffer stocks.
- Establishing land cadastral for soil fertility mapping by 2013.
- Provision for 4,000 km of rural feeder and access roads by end 2011
- Increasing storage capacity from 300,000 to 1,300,000 MT by completing two ongoing silos and constructing 18 new silo complexes.
- Proving 8 agro-processing facilities tied to the silos and other cottage industries by 2011.
- Establishing 17 rice processing mills nationwide in 2011.
- Establishing 6 crop handling, preservation and conditioning centres (one in each geographical zone) by 2011.
- Establishing 20 commodity out-growers development and extension centres around the river-basins by 2011.

4.2.14 The goals of the livestock (including poultry) development sub-component under the NAIP are to (i) rapidly increase the production/supply of meat and livestock products, (ii) enhance the competitiveness of livestock products through the value chain approach, (iii) encourage private sector investment, (iv) create employment, (v) improve food security, and (vi) reduce poverty. The key production and value chain interventions are:

- Provision of 37 standard model abattoirs with complimentary facilities by 2012.

- Provision of additional 28 model livestock markets from the present 7 and 37 live bird market from the current 8 by 2013.
- Reactivation of intensive small holder livestock fattening scheme for 4800 loan beneficiaries and the development of 20 feedlots by 2012.
- Increasing the number of model grazing reserves with complementary infrastructure from 6 to 26 by 2013.
- Increasing the number of livestock services centers from 11 to 40 and establishing 4 model cottage dairy processing facilities in grazing reserves by 2011.

4.2.15 The investment plan includes projects that deal with national abattoir management and development; national livestock products and market development; intensive commercial livestock development; national dairy development; and national breed improvement and conservation. The plan is consistent with four of the 5- Point Agenda by facilitating the supply of livestock inputs and promoting livestock production in the field increasing income from livestock produce and the empowerment of youth/creation of employment sites through livestock projects (Agenda 3); increasing livestock productivity provision of livestock inputs through a PPP approach (One-Stop-Shop), construction of cold rooms and sanitary sales outlets for livestock products, and improved smallholder dairy processing of milk, (Agenda 3), and maximizing livestock revenue by improving the competitiveness of value-added products (Agenda 4).

4.2.16 The National Dairy Development initiatives aims at enhancing the production, processing and marketing of milk and milk byproducts by replicating the success achieved by the Kaduna Pilot Dairy Scheme in other States with high potentials for milk production. It will also help in creating a favourable environment to attract private investment in milk production. The intervention will involve: (i) Organizing pastoralists into milk cooperative groups; (ii) Establishment of dairy processing plants; (iii) Establishment of milk collection centre, equipped with cold chain facilities; and (iv) advocacy and training staff/pastoralists on milk collection and processing. In addition to the dairy plant established in Kaduna, the expected output / deliverables of this programme are: (i) Construction of additional 4 dairy processing plants in areas of comparative advantage, (ii) Establishment of additional 12 milk collection centres equipped with cold chain facilities; (iii) training of 150 milk collection officers, and 30 milk processing officers. This is for the period 2011 to 2013.

4.2.17 The National Breed Improvement and Conservation sub-component aims at improving the productivity of livestock and conserving animals in their various ecological zones of the country. This will be achieved through the upgrading of pastoralists and smallholders livestock by crossing them with livestock in the breeding centres. The activities to be finance are: (i) Construction and operation of

new livestock breeding and investigation centres in partnership with the private partners; (iii) Open nucleus breeding scheme whereby livestock animals of pastoralists and small holders are crossed with animals in the breeding centres to improve their productivity; (iv) Stakeholder sensitization workshops and (v) Training of staff on management of breeding centres and artificial insemination techniques. In addition to the 9 centres (6 old rehabilitated, 3 new established) operational, the expected output / deliverables are: (i) Establishment of additional 17 new breeding centres in close collaboration with the Private sector and managed by the private sector under a suitable PPP model when completed; (ii) improve the breed of about 5,500 livestock animals; (iii) conduct 4 sensitization workshops and (iv) train about 50 livestock staff on range management.

4.2.18 During the NAIP plan period, the expected outputs of the sub-component will include:

- Construction of 31 standard/mini abattoirs; procure 31 cold vans and meat inspection materials and training of estimated 3,700 butchers and 400 meat inspectors.

- Construction of 28 Livestock market , 37 Live-bird markets and training 370 fowl sellers and operators and 120 data collection/M&E officers at the Federal, States and LGA levels.

- Linking 4,800 livestock farmers to loans from NACRDB and other financial institutions, construct 24 model cattle sheep and goats, pigs and poultry farms; and train an estimated 3,500 livestock farmers.

- Construction of 4 dairy processing plants, establishment of 12 milk collection centres equipped with cold chain facilities and training of 150 milk collection officers, and 30 milk processing officers and

- Establishment of 17 new breeding centres in close collaboration with the Private sector and managed by the private sector under a suitable PPP model and improve the breed of about 5,500 livestock animals.

4.2.19 It is expected that the projects will be driven mainly by the private sector, while Government at all levels will provide the enabling operating environment. The expected outcomes include:

- Increase in wholesomeness of livestock and dairy products.

- Increase in livestock exports and trade

- Increase in production of meat and other Livestock products

- Improve and conserve the genetic potentials of the local indigenous breeds of livestock

4.2.20 The need for Nigeria to develop its fisheries and aquaculture sub-sector is based on the fish sector analysis suggesting that there exist about 2 million MT of annual yield potential in inland and marine waters. The study suggests that aquaculture also has the capacity of producing about 2.5 million MT of fish. The plan aims at providing technical, financial and policy assistance to the private sector to produce top quality products in a sustainable and environmentally friendly manner. The projects include fish disease control; Lagos Fishery Terminal; vessel monitoring system (VMS); stock enhancement and management in selected inland waters; the development of fish cage culture, fish farm estate, and fish feed mill, and the establishment and promotion of a model fish market and aquaculture development (including the establishment of a center and reticulating system).

4.2.21 Key priority interventions in the fisheries sub-components during the plan period include support for the establishment by the private sector of 120 fish farm estates across various geo-political zones, which is expected to increase fish output by 300 percent; inland fisheries development; the construction of ornamental fish development centres; fish seed and feed certification and standardization; shrimp farm development; and the establishment of feed mills and fish resources monitoring.

4.2.22 The priority of the FGN during the plan period is to achieve increased domestic fish production from all sources on a sustainable and renewable basis to the level of self sufficiency and fish export in the medium and long term. The plan aims at increasing production of fish and fisheries products by 25 per cent annually. By 2013, it is expected that the current production of about 700,000 tonnes will increase to about 3 million tonnes. To support these output levels, the local fish seed production is expected to increase from current 5 million to about 4 billion annually.

4.2.23 The Fish Disease Control project aims at preventing disease outbreak in the aquaculture industry. Specifically, it is directed at the (a) production of high quality, disease free fish which is safe for human consumption; (b) increased fish production for local consumption and export; (c) development of aquatic animal health; (d) increased numbers and values of aquaculture fish, molluscs and crustacean species (for local food supply and international trade); (e) build and provide extension services; and (f) put in place fisheries regulation and control of all aquatic diseases.

4.2.24 The Nigerian Fertilizer Market is experiencing a rising profile. The market has potential of absorbing over 7.5 million MT in the next six years (2010 – 2015). A socio-economic study on fertilizer use conducted in 2006 shows that the actual annual demand for fertilizer is estimated at 2.6 million MT per annum and is expected to increase steadily to 3.4million MT by 2015. The current annual imports

and local production is about 1 million MT. The fertilizer subsector, therefore, occupies a significant position in the national economy. Currently, there is high level of fake, misbranded, adulterated and underweight fertilizers in the market. In view of this, there is the need to monitor and regulate the quality of fertilizers in the market. Fertilizer quality monitoring will lead to improved crop production output for increased supply of food and fibre. In addition, farmers will earn more profit margins through improved agronomic efficiency associated with the use of good quality fertilizers. Furthermore, research results show that the complimentary use of organic and inorganic fertilizer have proved to be very effective in the maintenance of soil fertility and sustenance of crop productivity.

4.2.25 The Organic Fertilizer Development Programme (OFDP) seeks to develop and promote the use of organic fertilizer technologies in conjunction with relevant agencies. It aims at contributing to the conservation of natural resource base and increase farmer's income through the development and dissemination of organic fertilizer technologies, and improving the linkages between farmers, fertilizer producers, input dealers, in order to have access to organic fertilizer. The approach will be participatory of all stakeholders in line with the Public Private Partnership (PPP) implementing strategy of policy makers at local, state and federal levels. The Federal Government will focus mainly on policy formulation and provision of enabling environment for all the stakeholders. The States and Local Governments will be involved in the promotion, demonstration and adoption of the technology.

4.2.26 Untimely access to and low uptake of high quality seed resulting in the continued use of own "saved seed" instead of improved seed by farmers has led to low productivity and production. This in turn has accounted for low income of farmers and serves as a disincentive for increased private sector investment in the Nigerian seed industry. It has therefore become imperative that effective demand for quality seeds match potential demand by ensuring increased accessibility of farmers to quality and improved seeds and subsequent reduction of the dependence of farmers on "saved seed". This may also serve as an incentive for increased private sector investment in the seed industry.

4.2.27 The intervention areas proposed cover seed industry development; foundation seed multiplication program; seed certification quality control, crop registration and inspectorate services; and information dissemination. The goals of improved seed component are consistent with those of the 5-Point Agenda: the seed industry development falls under Agenda 2 and 3; the seed multiplication under Agenda 2; seed certification, quality control and crop registration and inspectorate services under Agenda 1; and information dissemination under Agenda 2.

4.2.28 Under NAIP the National Seed Laboratory Development intervention will entail the:

- Construction of two new Seed Testing Laboratories in the two new zones of NASC (Asaba & Gombe);
- Construction of two new Seed testing laboratories, (Zaria & Jos), to bring them out of the Administrative building;
- Up grading the infrastructural facilities, (furniture, fittings, plumbing, electrical, painting etc) in the Seed testing Laboratories at Ibadan, Umudike, & Ilorin;
- Purchase of modern state of the art, ISTA specified seed testing equipment for the six zonal Seed Testing Laboratories, (North West, Zaria; North East, Gombe; Central Zone, Jos; South West, Ibadan; South South, Asaba; & South East, Umudike) and the Central Seed Testing Laboratory at Sheda..
- Development of capacity of staff through appropriate technical and vocational training overseas in modern seed testing techniques and seed technology.
- Equipment maintenance and infrastructural supports

4.2.29 The National Foundation Seed Multiplication entails organization and coordination of the different classes of seeds of the arable, tree and horticultural crop components. The classes of seeds are breeder, foundation and certified. Breeder seeds are produced by Research Institutes that have the mandates for the particular crop. The immediate objective of the project is the release of top quality foundation seeds to certified seed producers, while the medium and long-term goal is to make available to farmers improved genetically high quality seeds to enhance productivity, create wealth and employment and reduce poverty.

4.2.30 The National Programme on Tree and Horticultural Seeds and Seedlings project entails the organization and coordination of the different classes of seeds/seedlings of the tree and horticultural crop components. The classes of seeds are breeder, foundation and certified. Breeder seeds are produced by Research Institutes that have the mandates for the particular crop Foundation Seeds are produced by trained private out-growers organized by the Council and also by private seed companies that have facilities to produce. Certified Seed Production is undertaken by the private seed companies, Non-governmental organizations, and Individuals so registered and accredited by the Council. In some states with farmers supply companies (FASCOMS), the tendency is for such FASCOMS to organize certified seed production. For budded/grafted tree seedlings, programme budwood/progeny gardens, and root stock/nurseries will be established in the six geopolitical zones for high quality sources of root and bud stocks. The gardens will be established and nurtured by NASC in collaboration with mandate research Institute to be handed over to private sector on maturity under PPP arrangement.

The objective in the short-term is to release top quality foundation seeds/seedlings to certified seed producers, while in the long-term to make available to farmers improved genetically high quality seeds /seedlings to enhance productivity, create wealth and employment and reduce poverty.

4.2.31 The National Programme of Pasture Seeds involves the organization and coordination of the production of improved fodder and forage seeds for livestock productivity. NASC is the regulatory agency and will provide policy direction in the pasture seed sub - sector. There is the breeder seed component that will be handled by research institutes (for example, NAPRI). Foundation seed production will be coordinated by NASC through organized livestock cooperative groups in the regions. Certified seed production and distribution will be under taken by private seed companies and other partners that are registered and accredited by the council. The short-term objectives are to: (a) promote and support livestock farmers in pasture seed production so as to increase their output and productivity and hence their income on sustainable basis; (b) strengthen the effectiveness of research and extension services in bringing technology and new pasture seed farming practices; (c) train and educate livestock farmers in the effective utilization of available resources(land ,water etc) and facilities to produce high quality pasture seed; (d) utilize experience of international farming practice to maximize the use of existing facilities and hence enhance pasture seed service delivery in the country; and (e) create regular market outlets that will lead to increased returns for pasture seed producers and hence enhancement of pasture see. In the long-term, the objective is to improve local varieties of Pasture seeds and produce high quality Seed for production of good quality pasture for the livestock industry.

4.2.32 The agricultural quarantine services in Nigeria are in need of upgrading. First, the failure of the service to effectively intercept and screen trans-boundary animals for diseases due to absence of control posts is a big challenge. Second, upgrading of training schools and provision of bilingual facilities is necessary to facilitate collaboration between Nigeria and neighboring Francophone countries so as to enhance joint action against foreign pests. Third, the establishment of documentation centre is required for the development of knowledge support for technical/professional personnel in their need for improved knowledge of quarantine matters. Forth, the limited number of laboratories has constrained the effectiveness and accuracy of quarantine decisions in the absence of empirical tests. Laboratories are thus required to ensure prevention and control of introduction of animal, aquatic resources, plant diseases and pests in and out of the country in line with international standard.

4.2.33 The projects under the Agriculture Quarantine Services (AQS) aim at enhancing the capacity of the agency so as to improve its surveillance functions. The projects thus cover the construction basic surveillance infrastructure, the establishment of documentation center, improved diagnostic and screening

laboratory, upgraded training school, and the setting up of an aquatic resource health, monitoring and evaluation program. Supporting tools, such as project vehicles and motorcycles will make it possible to easily patrol Nigeria's long and porous borders to prevent pest and diseases of plants, animals and aquatic resources.

4.2.34 The Building of two new Interstate Control Posts and Inspection Gallery water supply and Labour Line aims at establishing an effective control stations in Lokoja (Kogi State), Katsina-Alla (Benue State), Makurdi (Benue State)and Jebba (Niger State) for the control of the movement of animals for effective screening. The enhancing SPS requirements as outlined by Codex and IPPC project aims to ensure the implementation of SPS and Phytosanitary requirements as to improve food safety, enhancement of animals and plant and increase exports of agricultural products in international trade. The Upgrade Training School and Bilingual Facilities project, aims at upgrading the training school to international standard that will boost the profile of the service as a centre of excellence. The establishing of a documentation centre focuses on affording staff, researchers and other information seekers access to information as in disease occurrences alert and impact on trade development, both locally and internationally. The Diagnostic and Screening Laboratory enhancement development Programme, through procurement of Laboratory equipment, reagents and biologics, will enhance laboratories diagnostic testing and screening capacity of the country so that pathogens, pests, diseases of animal, plant, fish and their products are not imported or exported into and out of the country. Furthermore, the provision of laboratory equipments will enhance productivity and efficiency of the service in safeguarding the country against exotic pests and diseases incursion. The projects are consistent with first of the 5-point agenda (as well as the fourth CAADP principle) because the need for protecting indigenous aquatic resources from pests and diseases as well as the dealing with the risk extinction while at the same time establishing control to risk of entry and spread of pest and diseases of aquatic resources, thereby resulting into wholesome fishes and fish products that can be accepted in the international markets thus helping improve the potential income of farmers. These set of proposed new projects do not have a well identified source of domestic funding and constitute a financing gap (Table 3).

4.2.35 The programme of the Agricultural Research Council of Nigeria (ARCN) focuses on the intensification of applied research, the strengthening of ARCN itself, and the establishment and equipping of additional research institutes. Apart from publishing a Journal for Agricultural Research for Development and holding an annual stakeholder workshop on research, training and extension, the interventions envisaged for additional resources are: (i) Establishment of National Pasture/Forage Research Institute, (ii) Establishment of National Sheep and Goat Research

Institute, (iii) Establishment of National Swine Research Institute, (iv) Establishment and Equipment of Additional Research Institution on Beef and Dairy Cattle, (v) Establishment and Equipping of National Poultry Research Institute, (vi) Strengthening of a new Agricultural Research Council of Nigeria, (vii) Establishment of Agricultural Research and Development Consortia for major Commodities, and the West Africa Agricultural Productivity Programme (WAAPP). Furthermore, the projects seek to establish specialized centres and laboratories for crops, livestock and fisheries agricultural biotechnology research for the focused and intensified production of high yielding, consistently conformational and disease-resistant species of crops, livestock and fishery with due consideration given to all ethical concerns.

Each of the proposed activities will deal with the strengthening of research in the specified area of specialization, build capacity on modern techniques and provide vocational training opportunities for potential students. The projects identified meet the agriculture research, technology dissemination and adoption principles of CAADP. The project is expected to support the development of appropriate and effective production technologies for the identified areas. Table 3 shows the extent of the resource gap, while AnnexIII outlines the project profiles.

Table 3: Funding Requirement for Agricultural Productivity Enhancement Component.

S/N	NAIP FUNDING REQUIREMENT	Million Naira				
	COMPONENTS / SUB-COMPONENTS	2011	2012	2013	2014	Total
1	Agricultural Productivity Enhancement					
1.1	Fadama III	2507	2537	2875	2904	10823
1.2	National Programme for Food Security (NPFS)	1700.22388	5500.1493	4000.62687	139	11340
1.3	NERICA	500	500	300	179	1479
1.4	Promotion of Cash Crops (Cotton, Cassava, Oil Palm , Cocoa, Groundnut, Cowpea, Soyabean and Sesame)	6650	7540	7430	9050	30670
1.5	Tropical fruits Development in Nigeria	200	270	270	350	1090
1.6	Animal Traction & Hand Tools Technology Programme	250	330	330	420	1330
1.7	Promotion of Youth Career in Agriculture	100	150	150	200	600
1.8	Presidential Initiative on Rice Production in Nigeria	1500	1170	1170	1160	5000

1.9	National Dairy Development Programme	801.2	400.6	400.6	400.6	2003
1.10.	National Breed Improvement and Conservation Programme	1327.6	663.8	663.8	663.8	3319
1.11	Fish Quality Assurance and Disease Control	50	55	60	65	230
1.12	Organic Fertilizer Development and Promotion	460	230	230	230	1150
1.13	National Seed Laboratory Development.	579	580	320	0	1479
1.14	Foundation Seed Multiplication	886	1077	1109	0	3072
1.15	Tree and Horticultural Seed	0	200	250	30	480
1.16	National Programme of Pasture Seeds	0	200	300	0	500
1.17	Development of pest crop/aquatic resources free areas	1130	850	124	156	2260
1.18	Refurbishing and equipping the Biotech Laboratory.	550	250	150	150	1100
1.19	Establishment of Quarantine Station at Ibafo, Port-Harcourt, NAIA, Abuja upgrading of the existing one at MAKIA, Kano.	1208	750	213	245	2416
1.20.	The diagnostic and screening laboratory: Enhancement Development, Programme through procurement of laboratory equipments reagents and Biologics.	1091	600	240	250	2181
1.21	Agricultural Research Interventions (ARCN)	311.89	311.9	311.9	104	1039.69
1.22	Aquatic Resource Health, Monitoring and Evaluation Programme	0.65	0.3	0.2	0.15	1.3
	Total	21802.564	24165.75	20898.13	16696.55	83562.99

4.3 Component 2: Support to Commercial Agriculture

4.3.1 The main goal of this component is to provide the interventions required to support the private entrepreneurs in varied commercial ventures in agricultural production, processing and marketing (CAADP Pillars 2 and 3). The World Bank is presently supporting the Commercial Agricultural Development Project in Nigeria using value chain approach to the tune of US$159.0 million out of a total project cost of US$185.0 million in the five pilot States of Cross River (Oil Palm, Cocoa, and Rice), Enugu (Fruit Trees, Poultry, and Maize), Kaduna (Fruits Trees, Dairy, and Maize), Kano (Rice, Dairy, and Maize) and Lagos (Poultry, Aquaculture, and Rice). The key components of CADP include: agricultural production and commercialization; rural infrastructure and Project Management, Monitoring and Evaluation, strengthening of relevant institutions at Federal and State levels and Studies

4.3.2 The Project Development Objective (PDO) is to strengthen agricultural production systems and facilitate access to market for targeted value chains among small and medium scale commercial farmers in the five participating states. The commodities being promoted in the value chain approach are: oil palm, cocoa, fruit trees, poultry, aquaculture and dairy, with maize and rice as staples.

4.3.3 The NAIP resources will finance critical subcomponents which will boost the outputs in commercial crops, fisheries and livestock production, processing and marketing including: National Abattoir Management and Development Programme; National Livestock Products and Market Development Programme; Intensive Commercial Livestock Development Programme; Vessel Monitoring System (Fisheries) and seed industry development.

4.3.4 The National Abattoir Management and Development initiatives under NAIP aims at promoting Public-Private-Partnership arrangement in the management of abattoirs and providing standard abattoirs with modern meat processing and transportation facilities to ensure that meat and meat products are safe, wholesome, fit for human consumption and for export. The key activities proposed for financing include: (i) Construction of standard / mini abattoirs; (ii) Provision of cold chain facilities (refrigerated vans, cold rooms and refrigerators, etc) and sanitary sales outlets; (iii) Provision of Meat and Milk Hygiene Laboratories; (iv) Advocacy and management; and (v) Training of butchers and meat inspectors (Federal, States and LGAs) and workshops for Federal / States on recent trends in meat inspection and hygiene. The expected output / deliverables are: (i) Construction of 31 standard/mini abattoirs; (ii) procure an estimated 31 cold vans to transport meat and meat inspection materials, several cold rooms/refrigerators; several sanitary sales outlets; (iii) training of estimated 3,700 butchers (100 per State), 400 meat inspectors (10 per State), and hold 2 training workshops; (iv) creat employment for an estimated 2,000 unemployed graduates; and (v) routine data collection.

4.3.5 The National Livestock Products and Market Development Programme aims at providing standard infrastructural facilities in key livestock markets to improve bio-security, ensure reliable market and trade information gathering. This will enhance the marketing, trade and the development of the different livestock products as well as attract public and private investment in the livestock sector. Appropriate synergy will be created by linking this sub-component to the NAMIS in Component 4 of NAIP. Key activities here will include: (i) Construction modern Livestock and Live-bird markets with standard facilities; (iii) Training of data collection and M&E officers (Federal/State/LGA), fowl sellers and processors (Federal, States and LGAs) and (ii) Livestock market information system. The activities of this programme include forming of specialized cooperative market sellers associations that will enhance the marketing of livestock and live bird in a bio-secure environment. The implementation of this aspect of the programme will

ensure that the vulnerable groups such as unemployed youths and women are targeted to be part of these associations whose member's capacities will be built during the duration of the NAIP. These groups will be linked to financial institutions for credits to support their trade in various livestock species. Market environment also support trading in other livestock products like fresh milk and milk products by pastoralist women and other youths. These groups of people will be targeted for increased livestock trade. The expected output / deliverables are: (i) Construction of 28 Livestock market (7 already constructed at various stages of completion) and 37 Live-bird markets (2 already constructed in Ilorin and Jos); (ii) procure various ICT equipment for data entry, storage, retrieval, transmission and distribution; (iii) train 120 data collection/M&E officers (Federal/States/LGA), hold data harmonization workshop yearly and train 370 fowl sellers and operators.

4.3.6 The Intensive Commercial Livestock Development Programme aims at achieving rapid increase in livestock production in partnership with the State, LG and the private sector, thereby facilitating increases in the profitability of the different livestock enterprises. The activities to be financed are (i) Smallholder / Agro-pastoralist / peri-urban livestock fattening scheme; (ii) Livestock enterprise promotion; (iii) Construction of model livestock farms; (iv) Feedlot development; (v) training of staff/livestock farmers of best management practices and adoption of relevant livestock production technologies and (vi) Provision of livestock production inputs under the One Stop – Shop Model, and (vii) delivery of extension messages to livestock farmers.

4.3.7 The expected output / deliverables are: (i) Link 4,800 loan beneficiaries (1,200 per year) to NACRDB and other financial institutions to provide credit/loan to beneficiaries to undertake livestock fattening project – to produce an estimated 240 tons of beef, 15.5 tons of mutton, 95.4 tons of poultry meat, 153,300 crates of eggs, 135 tons of pork meat and 9,600 weaners per year; (ii) construct 24 model cattle sheep and goats, pigs and poultry farms; (iii) promote livestock enterprises in all States; (iv) Develop 20 feedlots of 5hectares each and (v) train an estimated 3,500 livestock farmers; and (vi) procurement of assorted quantities of livestock production inputs and veterinary drugs.

4.3.8 The Seed Industry Development, Technical Support and Commercial Services project seeks to accelerate the diffusion and adoption of high quality seed in the rural areas hence reduce the usage of "saved seeds" by farmers and consequently encourage the growth and development of seed entrepreneurs, seed companies, hence rural commerce (seed private marketing and distribution).

4.3.9 The financing requirements (funding gaps) for the sub-components in the support to commercial agriculture are summarized in table 4 below.

Table 4: Funding Requirement for the Support to Commercial Agriculture Component

S/N	NAIP FUNDING REQUIREMENT	Million Naira				Total
	COMPONENTS / SUB-COMPONENTS	2011	2012	2013	2014	
2	Support to Commercial Agriculture					
2.1	National Abattoir Management and Development Programme	1426.75	1426.75	1426.75	1426.75	5707
2.2	National Livestock Products and Market Development Programme	628.75	628.75	628.75	628.75	2515
2.3	Intensive Commercial Livestock Development Programme	779.75	779.75	779.75	779.75	3119
2.4	Vessel Monitoring System (Fisheries)	0	172	172	171	515
2.5	Seed Industry Development	2507	2537	2875	2904	10823
	Total	5342.25	5544.25	5882.25	5910.25	22679

4.4 Component 3: Land and Water Management

4.4.1 Land and Water Management component derives essentially from the ongoing interventions in NPFS, NFSSP of 2010, FMWR and River Basin Authorities of Nigeria necessary to provide land management services and additional water sources for all-year-round agriculture. It conforms to CAADP pillars 1 which is targeted at extending the area under sustainable land management and reliable water control systems. NAIP will undertake a national soil testing exercise aimed at determining the nutrient status of soils so as to provide a guide for appropriate fertilizer use that are crop specific and environmentally friendly.

4.4.2 Dams and irrigation schemes are strategic for increased productivity by encouraging a shift from seasonal to all year farming. Irrigation supports higher production for the enhancement of farm income, food security and reduction in poverty and improved safety nets. The projects proposed for financing under the NAIP seek to ensure that all existing dams and irrigation facilities are exploited and managed through Public-Private-Partnership (PPP) arrangement. The River Basin Development Authorities (RBDAs) are to be restructured and managed in a more efficient manner with a view to making them centres for improved seed for crops, livestock and fishery multiplication, for the construction and maintenance (not management) of dams and primary channels, promotion of a strong extension system for the States of coverage, and more importantly, for the farms in their irrigated

lands. The projects will support the provision of processing facilities for the major crops and livestock of the RBDAs farm system; provision of potable water supply, roads and basic infrastructure for rural communities to facilitate access and product evacuation as well as to improve the environment to attract young farmers to the rural areas.

4.4.3 Fifteen projects are identified for additional support to enable their completion on a timely basis (Table 5 below). The Zauro Polder Irrigation Project is located within the Fadama area of Rima River, between Argungu and Birnin Kebbi. The estimated gross irrigable area of the project is 10,500ha within an area approximately 47km in length and 6-7km in width. The project will entail development of 10,572ha of agricultural farmland and 50 million m3 water reservoir. At full development, it is estimated that the scheme will produce 42,000 tons of rice, 4,800 tons of Maize 2,200 tons of cowpea, 800 tons of wheat and 33 tons of vegetable annually. At current prices, the gross value of such production would be about N4.00 billion annually. Furthermore, the project's development will result in flood control, which regularly devastates farmlands in the area causing hardship for the rural populace.

4.4.4 The Middle Ogun Irrigation Project is intended to develop 12,000 ha of land under irrigation in 4 equal phases on the left and right banks of River Ogun at Odo-Ogun along Oyo-Iseyin road, about 10 km from Iseyin in Oyo State. The contract for the first phase of the project was awarded to Messrs Niko Engineering Ltd in December 1990 to cover 3,000 hectares farmland. The project has suffered delays arising from poor funding which in turn has led to escalation of costs. A repackaged contract and Revised Estimated Cost are being processed and will subsequently be forwarded to the FEC for approval after Due Process Certification. The project is currently about 77 percent completed. Between 2003 and 2006, the Middle Ogun Irrigation project has delivered additional 680 ha for dry session cropping which will further sensitize and mobilize the project communities towards irrigated agriculture. The 680 hectares of Plot 2 was commissioned on May 26, 2006. The remaining 2320Ha of the 3000 Ha under phase 1 is being repackaged for completion.

4.4.5 Finally, three land reclamation and irrigation projects in Ukwa, Asu Ezeaku and on the Anambra Imo river basin are envisaged. The proposed sub-projects involve the reclamation of land for irrigation purposes and the construction of irrigation facilities for double cropping in each year. Similarly, the Oke-Oyi Small Irrigation project, the Erin-Ile Irrigation project and the Gerinyan Irrigation project each consists of the construction of concrete weirs, irrigation facilities, procurement and installation of high head pumps for the irrigation of about 200 ha.each.

Table 5: Funding Requirement for the Land and Water Management Component

	COMPONENTS / SUB-COMPONENTS	2011	2012	2013	2014	Total
3	Land and Water Management					
3.1	Land Cadastre Initiatives	13000	12700	15200	14900	55800
3.2	Soil Fertility Management (Soil Testing)	850	1300	1570	1570	5290
3.3	Promotion of conservation Agriculture & reclamation of problem soils	250	260	260	260	1030
3.4	Zauro polder Irrigation project	-	8020	5020	2020	15060
3.5	Middle Ogun Irrigation project	-	1320	1000	1000	3320
3.6	Capacity Building of professionals/perfomance Assessment of Dams/Irrigation project	-	80	70	50	200
3.7	Ukwa Land Reclamation and Irrigation scheme	-	200	350	200	750
3.8	South Chad Irrigation project	-	1200	800	800	2800
3.9	Girinyan Irrigation project	600	600	500	0	1700
3.10.	Construction of weir and Irrigation Scheme	100	200	200	300	800
3.11	Tunga-Kawo Dam and Irrigation project	200	200	600	0	1000
3.12	Illa-Ebu Irrigation project	500	300	500	0	1300
3.13	Dadin Kowa Dam and Irrigation project	400	400	100	200	1100
3.14	Challawa Karaye Irrigation project	500	300	300	0	1100
3.15	Small Scale Irrigation project Delta	900	800	700	600	3000
3.16	Itu Irrigation/Drainage/flood control project	150	460	260	0	870
3.17	Ofu-Imabolo Irrigation project	60	470	590	0	1120
3.18	Small Scale Irrigation Scheme Goronyo	200	400	400	0	1000
	Total	17710	29210	28420	21900	97240

4.5 Component 4: Linkages and Support to Inputs and Products Markets

4.5.1 In line with Pillars 2 and 4 of CAADP, the component 4 of NAIP focuses on the critical linkages and support services needed to enhance productivity and outputs as well as increased income of farmers in Nigeria with the ultimate goal of attaining food and nutrition security and wealth creation. The principal objective of this component is to improve the access of farmers to inputs, raise product quality and provide effective linkages to market outlets.

4.5.2 To date, Nigerian farmers still face the problems of accessing input markets, such as chemicals, herbicides, fertilizers and pesticides that are important to enhance crop yield and farm income. They are also not effectively linked to production resources such as capital, equipment and services such as tractor hiring. There is also the problem of poor uptake of technology and research outputs by farmers. In addition they lack information on new crop varieties and opportunities in domestic and international markets.

4.5.3 This component will therefore focus on linking farmers to input dealers and product markets. It will also be used to enhance capacity building of farmers and core extension workers and agro-dealers. This component covers thirteen key intervention areas (table 6). NAIP resources will be expended on such activities as fishery terminal, fertilizer quality control, seed certification, capacity building of farmers and extension agents; interstate pest control post, among others.

4.5.4 The objectives of the Lagos Fishery Terminal are to provide a centralized fishery terminal for the export of fish and fish products; and ensure that fish being landed in harbour that is dedicated to fisheries is wholesome, uncontaminated and safe for human consumption (to enhance food safety in Nigeria). Finally, the Vessel Monitoring System (VMS) has the objective to (i) prevent/stop illegal fishing activities such as IUU, poaching and transshipment, which costs Nigeria about $50m annually; (ii) harmonize Nigeria's VMS processes with that of her neighbours that are implementing the VMS in their countries; (iii) enhance and improve inter-agency and information sharing for the promotion of good fishing practices among stakeholders in the maritime sector, and relevant security agencies; and (iv) curb activities of Sea Pirates in the Nigerian marine waters.

4.5.5 The Fertilizer Quality Control (FQC) project aims at increasing the use of quality fertilizers to serve as stimulant for growth in fertilizer consumption, increasing food production and encouraging private sector investment; protecting the farmer as well as providing assurance for good returns on fertilizer use; and creating an enabling environment for competition and protecting investors against harmful practices in the market. In addition, the project will facilitate and promote the integration of the national fertilizer market into the larger regional (West African) market. The implementation of the initiatives will involve the Fertilizer Department of the FMARD, the Standards Organization of Nigeria (SON), NAFDAC, fertilizer importers, blending/manufacturing companies and four approved laboratories – IAR/ABU Zaria, UNN Nsukka, NFDC and Rotas Soil lab – Ibadan.

4.5.6 The purpose of Seed Certification project is maintenance of variety identity and purity to guarantee high quality seed for farmers use. The organization and systematic procedure for the control of seed multiplication, and production in a seed programme is accomplished through time tested and highly perfected system of seed certification. It will assists both public/private seed producers in following procedures established for meeting seed quality standards. Additionally, it inspects

their production; harvesting, processing up to seed packaging and sealing of seed containers. Successful seed lots are issued certificate. The programme also deals with rampant sale of adulterated poor quality seeds to unsuspecting farmers and ensures that marketed seed are of high quality. In line with ECOWAS Seed Rules and Regulations, the project is targeted at Seed Crop Field Inspection of Breeder seed of NARIs, Foundation and Certified Seed Out-growers, by Seed Companies, Farmers Supply Companies (FASCOM), Seed Farmers Cooperatives, NGOs and eligible seed out-growers. It will equally address the issue of Seed Law Enforcement, Seed quality checks, and assurances on all seed classes (Breeders, Foundation and Certified) for effective seed quality control on all traded seeds nationwide. The programme also enforces and regulates seed quality of all traded seed lots in the seed market.

4.5.7 The Provision of Tools and Materials for Dissemination of Information on Seeds & Seedlings project has the objective to (i) improve adoption and use of improved seeds and seedlings to enhance farmers' productivity; (ii) encourage private sector investment in the seed industry; and (iii) provide adequate seed data and information for proper decision making process in the seed industry. Similarly, the Seed Research and Studies project has the objective to (a) identify challenges associated with generating data and also proffer solutions to these identified challenges.(both the public and private sector will be considered); (b) study various data/information capturing instruments utilized in the public and private institutions in the seed sector; (c) study the capacity of various seed production by NARIs (both human and equipment capacity will be taken into consideration); (d) ascertain the capacity of data/information officers involve in information management; and (e) study the various germination discrepancies of seeds in terms of method and methodology used in seed testing.

4.5.8 Farmer associations and cooperatives play an essential role of mobilizing and organizing farmers to access and sustain agricultural programmes. In order to ensure that smallholder farmers actively participate in the NAIP process, a Cooperative Revitalization Project (CRP) is included in the NAIP (Table 6). The project aims at the mobilization and organization of smallholder farmers, especially women and unemployed youth for meeting the national food security and improved rural household objectives. The thrust of the CRP is to establish a functional and cost effective cooperative system for the provision of specialized services to client farmers in the area of micro-finance, agro-input supply, produce marketing and micro-enterprise development. The target is to promote the establishment of at least one specialized cooperative in each of the 774 local government areas (LGAs) in the country with the corresponding apex structures in the Federal Capital Territory and the 36 states.

4.5.9 Agro-dealership strengthening sub component will ensure the reinforcement and further mobilization and training of 15000 agro dealers nationwide for efficient

procurement and distribution of the agricultural inputs. The NAIP resources will consolidate on the work done by other projects such as Developing Agricultural Inputs Markets in Nigeria (DAIMINA). Agro dealer associations will be strengthened and trained in aspects of product knowledge on seeds, fertilizers and crop protection chemicals. They will also be trained in simple activities like packaging of seeds and fertilizers in small packs as well as on provision of farm advisory services to farmers. Other areas of training will include association development, business management, book keeping and marketing of agricultural inputs.

4.5.10 With the FGN policy on the gradual disengagement from agricultural inputs procurement and distribution, the need to have a robust private sector led players that will take over and consolidate the agri input business becomes very paramount. As such, the agro dealers who operate in all nooks and crannies of the country will be fully mobilized and trained for this purpose. Thus activities to be financed under NAIP include; training and certification of 15000 agro-dealers in 20 States and production of training materials and sensitization of agro dealer associations. A total of about 2,500,000 farmers are expected to be reached by the trained agro dealers.

4.5.11 To address the challenges of poor linkages and impeded access to input and product markets, Government is presently operating a National Agricultural Marketing Information System (NAMIS) which is domiciled in the National Programme for Agriculture and Food Security (NPAFS). NAMIS is charged with the responsibility of managing a demand driven National Agricultural Market Information Service. Other Specific mandate of NAMIS include, capacity building for field facilitators, sensitization of traders organizations and farmers, provision of market opportunities for farmers and traders, and dissemination of available information to Stakeholders in the Agricultural Industry. Market information/data are generated on weekly basis, processed into leaflets, newsletters, newspapers and radio / television messages for dissemination as well as use of cell phones. In recognition of the high level of illiteracy in the country, market information is also translated into local languages and transmitted through radio and TV for the benefit of local market operators.

4.5.12 The output of this component will include an efficient private sector led agricultural input and commodity market system fostered and consolidated as well as strengthening of a national marketing information service. The productivity of smallholders will increase through better access to inputs and information. It is also expected that the price negotiating power of smallholder farmers will improve significantly with through initiatives of farmers sensitization, mobilization and improved agro-input dealership.

4.5.13 The sustainability of outcome of implementation of this component is predicated on the assumptions that (i) the capacity of the farmers and cooperators must have been enhanced sufficiently in four year of implementation to manage the link with service providers and (ii) income will also rise to enable them pay for services from the service providers.

4.5.14 A total sum of N29.4 billion or USD 195.75 million is estimated to finance component 4 of NAIP within four years (2011 to 2014), table 6.

Table 6: Funding Requirement for Linkages and Support to Inputs and Products Markets

	COMPONENTS / SUB-COMPONENTS	2011	2012	2013	2014	
4	Linkages and Support to Inputs and Products Markets					
4.1	Tropical fruits Development in Nigeria	200	270	270	350	1090
4.2	Lagos Fishery Terminal	1500	3000	3500	2000	10000
4.3	Fertilizer Quality Control	236.08	118.04	118.04	118.04	590.2
4.4	Seed Certification and Quality Control	280	879	650	0	1809
4.5	Provision of Tools and Material	64	254	254	256	828
4.6	Seed Research and Studies	-	60	25	30	115
4.7	Establishment of Documentation Centre	550	250	180	120	1100
4.8	Upgrading Training School and Bilingual facilities	430	200	130	100	860
4.9	Procurement of 20 4WD project vehicles for the surveillance of border stations & Procurement of 100 motorcycles to access different terrains of the border stations.	1500	700	400	400	3000
4.10.	Enhancing SPS requirements as Outlined by Codex and IPPC.	800	350	250	200	1600
4.11	Building of 2 New Interstate Control Posts.	1770	120	900	750	3540
4.12	Cooperative Strengthening for Agricultural Development	1050	700	650	700	3100
4.13	Cooperative Rural Micro-Finance	550	500	370	310	1730
	Total	8930.08	7401.04	7697.04	5334.04	29362.2

4.6 Component 5: Programme Coordination, Monitoring and Evaluation

4.6.1 The objective of the component is to ensure the overall coordination and implementation of the NAIP, harmonization of activities of the programme with ongoing programmes and projects in the agricultural sector of Nigeria and other donor funded initiatives. It is designed to ensure financial and physical monitoring of the projects as well as the evaluation of impact on the intended beneficiaries, especially the vulnerable groups. Programme coordination component will be within the FMARD in order to obviate parallel institutions and unnecessary transaction

costs. The use of an existing institution will bring about synergy and harmonization of all donor funded programmes and projects in a unified mechanism.

4.6.2 Overall Co-ordination: The FGN will be responsible for the effective management and delivery of results of the projects under the NAIP. The Federal Ministry of Agriculture and Rural Development (FMARD) is the national agency responsible for programme implementation. The primary function of FMARD is funding, supporting implementation and co-ordinating the role of federal agencies involved in the programme. The Ministry is also to ensure that the level of annual funding for the project agreed in approved budgets is available and that these funds are released in a timely manner on a semi-annual basis.

4.6.3 There is a national management team under the National Programme Coordinator (NPCo) to cater for all technical, financial and administrative matters. The management team provides supporting institutions with the necessary technical, financial and monitoring support to implement the proposed interventions. Support and organisation of the programme is provided through this team made up of four national component heads, a chief technical Adviser (CTA) and M&E specialist internationally recruited by FAO and other relevant staff.

4.6.4 Other coordinating institutions at the federal level are the Technical Management Committee (TMC) and the National Council on Agriculture (NCA). The TMC is chaired by the Permanent Secretary, FMARD and comprises all the Directors in the FMARD, the legal adviser FMAWR, the director, Forestry Department, Federal Mininstry of Environment (FME), the Managing Director, National Agricultural Insurance Company (NAIC) and Managing Director, National Agricultural Cooperative and Rural Development Bank (NACRDB). It is responsible for the overall co-ordination and supervision of the implementation of the programme working in close collaboration with the NPAFS. The Head of NPAFS will serve as the Secretary of the Ministerial Co-ordinating Committee and the Technical Management Committee.

4.6.5 At the state level, the responsibility for field execution squarely lies with the states, in collaboration with the LGCs. The ADP is the implementing agency of the NPFS at the State level. The ADP Programme Manager serves as the State Food Security Coordinator (SFSC). He is responsible for the programme at State and LG levels and he is to harmonise and synchronise programme activities at State and LG level with on-going State agricultural development programmes. The ADP would be supported with mobility, training, allowances and other operating costs.

4.6.6 Each ADP is to provide Subject Matter Specialists or facilitators, Site Managers and Extension Agents) for the implementation of the programme. The NPFS facilitators for the states cover (i) Crop /Agro-forestry/Soil Fertility, Management, (ii) Livestock, (iii) Fisheries, (iv) Water Use and Control, (v) Nutrition

and Health, (vi) Planning, Monitoring and Evaluation, (vii) Rural Institutional Development, (viii) Agro-Processing and On-Farm Storage, (ix) Research-Extension-Farmer-Input Linkage System, and (x) Finance. The coordinating bodies at the state level are Agricultural Development Projects Executive Committee (ADPEC) and the State Technical Management Committee (STMC). ADPEC will provide coordination, policy support/guidance in the implementation of the programme in collaboration with the STMC. The State Governor is the Chairman of ADPEC while ADP Programme Manager in the State, the state Food Security Coordinator, acts as the Secretary of ADPEC and STMC.

4.6.7 The communities will also play active role in programme planning and implementation. With appropriate support from site managers, consultants and NGOs, they will prepare and annually review their development programmes. The chairpersons of the LGCs would ensure that projects funded in their LGCs are successfully implemented. In order to foster the decentralisation process, each participating LGC would appoint the Head of Agriculture Department as the LGC Food Security Co-ordinator. He will coordinate the preparation of the LGC food security action plan in line with the overall NPFS programme of work and budget in close collaboration with the SFSC.

4.6.8 Finally, there will be collaboration with academic and research institutions. The private sector will play a major role in the supply of equipment, the civil works programmes as well as numerous contracts with private consultants. NGOs are involved in the group formation process, training and in the implementation of the community driven development fund.

4.6.9 Monitoring and Evaluation: The implementation of the NAIP projects will be monitored and evaluated as guided by established procedures and guidelines which integrate harmonized monitoring tools such as the annual work plan, planning and tracking tools, M & E calendar and standard progress report and quarterly reports. The M&E components for each project/program provide the necessary technical support to the other components for regular reports to stakeholders. The M&E coordinating team will operate through the decentralized framework of the NAIP, support and co-ordinate the M&E staff at the project levels and assist with their training, including the training of civil society teams that will support the process. The coordinating team will provide the necessary technical support to the other components of the plan and will be responsible for regular reporting to stakeholders and the documentation of plan implementation progress, and evaluation of performance and outcome.

4.6.10 The implementation of the M&E plan will follow a work plan and budget process which commenced at community level using participatory approaches. This entailed working with the communities to prepare annual work plans and budget for the activities or aspects of the programme for which they are responsible. In collaboration with heads of other components and sub-component heads, the M&E component also initiates the process for the collation of progress reports from the components and sub-component heads as well as project reviews and evaluation.

There would be at least mid-term and terminal reviews, and technical and administrative reviews may be undertaken if deemed necessary. The states have the responsibility to conduct regular participatory monitoring at the site level.

4.6.11 The results monitoring framework (RMF) will form a core component of the M&E system of NAIP. Each project will be monitored separately along guidelines that would be established at project inception. To the extent possible, participatory monitoring and evaluation by project stakeholders will be conducted. The RMF's outcome and output indicators; baselines and targets; and indicative resources per output will guide the M&E processes. The RMF will serve as the basis for assessing achievement of results at various levels. The targets established at the beginning of the project implementation will be reviewed and updated annually according to project needs. The M&E calendar will be aligned with key strategic actions to be implemented under each output taking into account the related processes. The calendar will also be reviewed and updated annually as necessary. Every year, before the next budget appropriation, all the projects executed under the NAIP will be reviewed.

Table 7: Funding Requirement for Programme Coordination, Monitoring and Evaluation

	COMPONENTS / SUB-COMPONENTS	2011	2012	2013	2014	Total
5	Programme Coordination, Monitoring and Evaluation					
502	Coordination Monitoring and Evaluation	750	500	500	500	2250
	Total	750.00	500.00	500.00	500.00	2250.00

CHAPTER 5

RESULTS AND RESOURCE FRAMEWORK

This chapter outlines the results and resource framework (RRF) for the NAIP. It establishes the link between the objectives of the plan (expected outcomes) and the inputs (the projects under the MTSS and the NAIP). This is subsequently related to the prospects of realizing the outcomes of the Government's medium-term vision.

5.1. Expected Outcomes and Outputs

For the purposes of the results framework, the medium-term outcomes of the NAIP are defined as consistent with the goals of the National Food Security Programme (Chapter 2). Annex I spells out the expected outcomes and associated target outputs in a log frame. Overall, the principal goals are:

- Secured food and feed needs of the nation.
- Achieve a 100 percent increase in productivity by 2015 envisaged in component 1.
- Expand dairy production and milk yield from the current less than 2,000 kg to 5,000kg per cow per lactation by 2015.
- Increase current production of about 700,000 tonnes of fish to about 3 million tonnes.
- Reduce by 50percent by 2010, the number of households that are food insecure.
- Increase by 30 percent the number of households that have adequate dietary
- Increase by 20 percent the value of agricultural products exported by 2015
- Reduce the present level of food import (worth over $3 billion per annum) by 50 per cent in 2015 and by 90 per cent in 2020.
- Derive about 10 per cent of the nation's foreign exchange earnings through agro-industrial exports by 2015.
- Reduce the post harvest loss of agricultural produce by an average of 50 per cent in 2015.

- Increase by 20 percent the value addition of agricultural products through processing and nutrient fortification
- Increase by 30 percent of available rural infrastructures
- Increase the size of irrigated land from current 1 per cent of cultivable land to 10 percent by 2015.
- Increase area of land planted with diversified biomass including economic species in agro forestry program from current 3.5 to 7 percent in 2015.
- Complete the establishment of gazette forest and grazing reserves by 2015.
- Achieve an efficient agricultural extension delivery system which includes extension worker farmer ratio of 1:500 by 2020.
- Achieve the adoption of improved varieties/species of seed and brood stock by 50 per cent of the farmers by 2015 and 75 per cent by 2020
- Increase by 30 percent the use of fertilizers by farmers across the country
- Increase by 50 percent the use of animal traction and small machinery for agricultural production across the country

These are directed in meeting the food security and poverty reduction objectives of the government and the MDG1 target of reducing by one-half the number of people below the poverty-line by 2015.

5.2 Community Driven Development and use of ICT

Many of the projects in the NAIP (especially those supporting the crop sector) provides support and capacity building in group development, marketing, rural finance, rural infrastructure and off-farm income generating activities. Group development encompasses group formation and strengthening by providing the community development agents at the state and LG levels with additional training and re-orientation, transport and supervision. At site level, there would be consultation with the villagers and traditional leadership to mobilize all segments of the rural community to effectively participate in the activities of the programme. There is also provision for an extensive publicity campaign to popularize the projects and stimulate participation.

The marketing and rural finance sub-components aim at enhancing farmers' access to modern agricultural inputs by strengthening delivery of services and creating better linkages between farmers and service providers. Working with the International Fertilizers Development Corporation (IFDC), a system has been developed to facilitate linkages between farmers and agro-input dealers and credit institutions. Efforts are also directed towards integrating produce marketing with input marketing through the establishment of an effective produce marketing information service to increase market transparency, enhance operational efficiency and promote international trade, particularly regional trade. The use of Information-

Communication-Technology (ICT) mechanism is being developed to support the process.

In addition, a community development fund (CDF) has been established to respond rapidly, appropriately and with flexibility as situations arise for activities which have not been included in any specific project component. This entails addressing the felt needs of rural people for the development of facilities such as feeder roads and culverts, markets, small dams, etc. for which there is community commitment but a lack of financial resources. Emphasis is on operations which would not normally be funded by financial markets. For example, provision has been made for the rehabilitation of about 300 micro earth dams and construction of 200 new dams; watershed management would be an integral element of the dam programme. The civil works programme would be supported through concerted efforts by Chinese water control technicians who, with their Nigerian counterparts, would demonstrate simple, low-cost technologies.

5.3 Partnership Arrangements

Country leadership and ownership at all levels will be the guiding principle for implementing NAIP projects. NAIP will apply the principles of country ownership, alignment, harmonization, managing for results and mutual accountability. For this purpose the FGN will seek the engagement of development partners to respond to the assistance needed by FMARD for bridging the funding gaps to ensure successful projects implementation. Strategic Partnership will be built with other sector ministries and related institutions, bilateral and multilateral agencies, the National Assembly, research institutions and other stakeholders. The key instruments that will guide the partnership strategy are UNDAF, MDGs, NEPAD Framework, NV 20:2020 and the National Food Security Document.

A network of stakeholders at various levels will be involved in project implementation. The main partners will be the FGN through the FMARD as the lead national counterpart, the NPC, Federal Ministry of Environment, Federal Ministry of Finance and Financial Institutions. Other MDAs include relevant departments and agencies of FMARD, such as the Planning, Policy Analysis and Statistics (PPAS) department and the National Food Reserve Agency (NFRA), for the required synergies to be built up for project implementation.

Through a financial co-ordination mechanism, FGN will collaborate with all partners to create complementarities in the project implementation. NAIP provides the opportunity to mobilize and jointly allocate resources, provide technical assistance, create alliances for the implementation of the projects and setting up mechanisms for monitoring and evaluation. Partnership mechanisms will be established through annual programme reviews, quarterly meetings and annual work plan development, implementation and monitoring and evaluation.

5.4 Public-Private-Partnership.

The public-private-partnership (PPP) framework is central to promoting private sector participation in the NAIP. The PPP will seek to define clear principles outlined in well thought out agreements to protect the mutual interest of both parties. The principles stand on the fundamental issues of ownership, funding and control of operations or put in another way: their relative exposure to the risks, responsibilities and rewards emanating from the PPP projects. PPP agreements will provide answers to following questions: Who owns the project? Who provides funds for the project? Who runs the project on day to day basis? Who provides the operational guidelines i.e. who regulates? Who provides monitoring and evaluation to ensure compliance? What are the benefits for all parties from the project?

In this context, as outlined in Annex II, the PPP arrangement under the NAIP will be guided by the following approaches:

a) Public sector projects where government (i.e. federal, state, local government or their combination) will own, finance and manage. In this case, private sector organization (PSOs) act as consultants and contractors, earn their fees and move on. This has been the predominant approach in the past.

b) Private sector projects where government will provide the enabling environment (in terms of conducive regulatory framework and incentives, e.g. concessionary credit facilities and other subsidies) for PSOs to own, finance and manage. Here PSOs are the investors. In some instances, government sells its stake in viable public sector projects to convert them to private sector projects in a privatization exercise.

c) Public-private projects where both government and PSOs will collaborate to own, finance and / or manage. Both parties are therefore investors. This is the selective approach being promoted in the NAIP and highlighted in specified projects.

Finally, the selection of private sector partners would be via a competitive bidding process handled by an independent transaction adviser. It could be selective or open competitive bidding but would be transparent and satisfactory to all interested parties. In some cases where rare competences are required of the private sector partner, head hunting may be allowed.

5.5 Institutional Arrangement

NAIP, being a federal government initiative, will utilize existing institutional structures within the FMARD and associated implementing MDAs. The various project profiles of NAIP show great diversity which requires a concerted effort to harness their synergies to seriously address the issues in the NV 20: 2020 and the 5-

point Agenda of the Agricultural sector. The criteria for selecting funding/implementing partners will include expression of interest, willingness to develop partnership, support with commitment, resource allocation and or mobilization.

During implementation, regular field monitoring visits to the projects will be conducted based on work plans and progress reports. At quarterly and annual meetings, the status of implementation, achievements and results would be reviewed using the rating criteria employed under MTSS. The expanded MTSS criteria involve and are aggregated with equal weights:[7]

(a) Clarity of current justification for budget commitment; that is, how well can the sector account for the level of funds currently allocated to that budget commitment?

Rate 4- very well (all cost components can be clearly identified and a strong argument presented for all cost).

Rate 3- well (the cost components can be clearly identified, although not all can be fully justified as necessary).

Rate 2- moderately (some but not all of the cost components can be identified, with limited justification).

Rate 1- not at all (the cost components can be neither identified nor can these be justified).

(b) Current impact of budget commitment; that is, what are the tangible positive impacts of the budget commitment?

Rate 4- abundant and convincing evidence of substantial positive impact from existing commitment.

Rate 3- sufficient and convincing evidence of moderate positive impact.

Rate 2- some evidence of moderate positive impact.

Rate 1- no substantial evidence of positive impact.

(c) Likelihood of completion during the NAIP time-frame; that is, how well can the MDA justify that the current budget commitment and planned future spending will complete the project and run the project post-completion?

Rate 4- all evidence suggest that the project will be completed with the budgeted funds and that of future running cost have been fully taken into account.

Rate 3- MDA can show that the project is likely to be completed with budgeted funds and that future running cost have been adequately considered.

[7] MTSS uses criteria (a) to (d). A fifth criterion (e), which is easily measurable, is proposed for the NAIP.

Rate 2- MDA can show that budgeted funds will allow for substantial progress but not completion and future running cost can be identified.

Rate1- Not at all, allocated funds will not allow for substantial progress nor can future running cost be adequately identified.

(d) Relation to the sector's goals; that is, how critical is this initiative to the sector's goal?

Rate 4- Vital – project goal cannot be achieved otherwise.

Rate 3- Important – this initiative will make substantial and measurable contribution to achieving the project goal.

Rate 2- Moderately – these initiatives will make some contribution to achieving the project goal.

Rate 1- Limited – the initiative will make no significant contribution to achieving the project goal.

(e) Capacity of the implementing agency: Is the implementing agency fully equipped in terms of human capacity and physical resources to implement the project as planned?

Rate 4 –Excellent – fully equipped in terms of human and physical capacity as required.

Rate 3 – Very well – has most of critical human and physical capacity, but lacking in few.

Rare 2 – Moderate – lacking in some human and physical capacity but can operate.

Rate 1 – Low – Not satisfactory at all.

Criteria (a) to (c) are mainly applied to ongoing projects while all the criteria (d) and (e) would be applied to new projects.

Other important aspects to consider while rating new and ongoing projects are:

- Impact of project –positive and pervasive.
- Political will that may include written commitment for support not only from FGN level but also from State and LGAs levels.
- Demonstrated need on the part of beneficiaries and their willingness to participate in project implementation and monitoring.
- Adequate and timely releases of funds in conformity with project implementation time frame.
- Physical measurable achievements that are tied to fund releases.
- Sustainability of project beyond funding period.

5.6 Generic Issues: Gender and Environment

Two generic issues dealing with (i) gender and vulnerable groups and (ii) environment and climate changed are deemed critical for strengthening the poverty reducing impact of the NAIP. With respect to gender and vulnerable groups, the program will monitor the following issues:

- Project documents should include the issues of social inclusiveness (gender, marginalized/stigmatized people of all categories) in express terms;
- As far as it is practicable, at least, 30 percent of beneficiaries should be made up by the vulnerable groups, depending on locations and types/level of vulnerability in the areas;
- In project implementation, there would be a mandatory clause that stipulates the level of involvement of vulnerable groups precedent to fund release;
- In projects domiciled in communities where the vulnerable are docile and voiceless either by tradition or socio-cultural values, there should be aggressive sensitization and advocacy targeted at these groups to get them involved in especially, socially feasible level of the project implementation;
- In projects with credit components, hindrances such as land ownership should be underplayed especially in cultures where women are not allowed to own land;
- To make gender involvement more realizable, bottom-up (community participatory) approach should largely be adopted.

The issue of environment and climate change would demand that:

- Given the nature of agricultural process, all agriculture projects have environmental impact; hence there is the need for environmental impact assessment (E I A) study.
- For any project to be carried out, the relevant authority (Federal Ministry of Environment) should b contacted for guidelines.
- Baseline Survey may be needed, which may deal with consideration for ecosystems (flora and fauna) climate etc; identify, safeguard measures; and list the mitigating/adaption measures e.g. social, financial, monitoring.

CHAPTER 6

EXPECTED IMPACT

6.1. Growth and Poverty Impact

The first national implementation plan of the National Vision 20:2020 targets a 6.7 percent growth rate for the agriculture sector for 2010 – 2013 and 15.6 percent growth rate for the non-agriculture sector for the same period. Since Nigeria has already achieved these growth rates for 2007-09 the NAIP targets a higher growth rate of 8 percent for agriculture during 2011 – 2013.

Achieving 8 percent growth in the agriculture sector and 7 percent growth in the non-agriculture sector would lead to a GDP growth rate of about 7 percent during 2011 – 2013. Simulation analysis based on Nigeria's CGE model suggests that these growth rates, if maintained, would allow the poverty rate to be reduced from 44 percent in 1990 to 29 percent by 2020 and 22 percent by 2025. This would imply that Nigeria would not be able to meet the MDG1 target even by 2020 but instead by 2025 at the envisaged growth rates. However, if the country successfully achieves an overall GDP growth rate of about 10 percent during 2011 – 2013, it is likely to half the 1990 poverty level by 2020. This latter scenario would require 8 percent growth in the agriculture sector and 10 percent growth in the non-agriculture sector.

Table 8 illustrates one possible plan for achieving the 8 percent growth in the agriculture sector. It shows the increases in production in selected crops that would be necessary to achieve this target. Compared to the targets aimed at by the NAIP, the 8 percent agricultural growth for 2011-2015 may be achievable under the proposed plan..

Table 8: National Production of Selected Crops (Millions of Tonnes)

	2006	2010	2011	2012	2013		
	Historical Value	Projected based on 2000-2006 growth rates	From Simulation: production required to achieve 8% agriculture sector growth.			Targeted Annual Growth Rate 2010 - 2013 (in %)	2015 target In NAIP (million tonnes)
Rice	4.20	5.28	5.66	6.05	6.45	6.9	6.00
Wheat	0.07	0.09	0.10	0.10	0.11	6.5	0.06
Maize	11.09	14.25	16.53	19.42	23.07	17.4	17.00
Sorghum	11.23	13.26	14.12	15.05	16.07	6.6	10.30

Millet	7.91	9.32	9.91	10.56	11.26	6.5	9.00
Cassava	39.70	50.16	53.75	57.58	61.68	7.1	104.00
Yam	30.34	39.61	42.94	46.51	50.32	8.3	76.00

Furthermore, a simulated cost/benefit analysis of the production activities proposed in the NAIP suggests that high rates of return could be expected if the projects are adequately implemented. Table 9 illustrates internal rates of return (IRR) in excess of 40 percent. Individual IRRs for the projects proposed in the NAIP are available for some projects and they substantiate the estimates presented in the table.

Table 9: Estimated Rates of Return for Projects in the NAIP

Production Activity	Output	B/C Ratio (at 22%)	IRR (in %)
Yam based	Yam/maize/cassava	1.621388	42
Sorghum based	Sorghum/millet/maize/cowpea	1.707825	60
Rice-vegetable (irrigation)	Rice/vegetable/tomato/okra/pepper	3.692404	55
Maize-vegetable (irrigation)	maize/vegetable/tomato/okra/pepper	1.998202	55
Ram fattening	Rams	2.599265	60
Small ruminant upgrade	goats/sheep	1.634267	45
Pig fattening	Pigs	6.199693	60
Broiler production	Broilers	13.163865	60
Layer production	eggs/culled layers	11.472272	60
Cattle fattening	Cows	5.833407	60
Pig upgrading	Pigs	1.657996	60
Aquaculture	tilapia/hetroclarias	4.012685	46
Artisanal fishing	Fishes	1.341124	45
Rice-fish mix	rice/clarias/tilapia	2.500791	52
Broiler-fish mix	broiler/clarias/tilapia	4.468188	58
Layer-fish mix	eggs/layers/tilapia/claria	2.585630	48
Pig fattening-fish mix	pigs/clarias/tilapia	2.136825	52

6.2. Funding Requirement

In order to achieve 8 percent growth for the agriculture sector during 2011 to 2013, the macroeconomic simulation using the CGE yielded the following investment expenditures requirement for the sector. The requirement was calculated on the basis of the cost of achieving the required increases in total factor productivity (TFP) in order to grow the agriculture sector by 8 percent and estimated elasticity of agriculture TFP growth to agriculture and non-agriculture expenditure based on historical data. It was also assumed, based on available data, that the ratio for the federal/state and local government expenditures is of the order of: 4:5:1. The results,

assembled in Table 10 refer to aggregate government investment requirements by federal, state and local governments. It suggests that for 2010, a total of N442 billion would be required as the total capital investment in agriculture for the three tiers of government. The federal government capital budget allocation of N149.9 billion fell slightly short of the estimated requirement for 2010, yielding a financing gap of N 27 billion.

Table 10: National Funding Requirements for NAIP

	Projected Capital Requirements for the agricultural sector (Billions of Naira, 2010 prices)			
Year	National	Federal	State	Local
2010	442	177	221	44
2011	500	200	250	50
2012	566	226	283	57
2013	641	256	320	64

Source: Nigeria CGE Model (IITA)

6.3. The NAIP Financing Gap

The NAIP is made up of five (5) main components and key sub-components, with implementation period covering 2011-14 (Table 11). As of the MTSS, the projected expenditure levels are substantially higher than the resource envelope (indicative ceiling) provided under the MTBF, reflecting many years of under-budgeting. The resource gap for 2010 amounts to about 64 percent of the capital budget allocation for 2010. In this respect, the FGN's capital budget allocation of N149.9 billion for agriculture is incapable of substantially reducing the resource gap. Furthermore, 2010 budget allocation for agriculture amounts to 8.0 percent of the total capital budget for the FGN. The need for additional financing for the NAIP is therefore imperative.

Table 11: NAIP and the Financing Gap (N Million)

S/N	NAIP FUNDING REQUIREMENT	Million Naira				Total
	COMPONENTS / SUB-COMPONENTS	2011	2012	2013	2014	
1	Agricultural Productivity Enhancement					
1.1	Fadama III	2507	2537	2875	2904	10823
1.2	National Programme for Food Security (NPFS)	1700.22	5500.14	4000.62	139	11340
1.3	NERICA	500	500	300	179	1479
1.4	Promotion of Cash Crops (Cotton, Cassava, Oil Palm , Cocoa, Groundnut, Cowpea, Soyabean and Sesame)	6650	7540	7430	9050	30670
1.5	Tropical fruits Development in Nigeria	200	270	270	350	1090
1.6	Animal Traction & Hand Tools Technology Programme	250	330	330	420	1330
1.7	Promotion of Youth Career in Agriculture	100	150	150	200	600
1.8	Presidential Initiative on Rice Production in Nigeria	1500	1170	1170	1160	5000
1.9	National Dairy Development Programme	801.2	400.6	400.6	400.6	2003
1.10.	National Breed Improvement and Conservation Programme	1327.6	663.8	663.8	663.8	3319
1.11	Fish Quality Assurance and Disease Control	50	55	60	65	230
1.12	Organic Fertilizer Development and Promotion	460	230	230	230	1150
1.13	National Seed Laboratory Development.	579	580	320	0	1479
1.14	Foundation Seed Multiplication	886	1077	1109	0	3072
1.15	Tree and Horticultural Seed	0	200	250	30	480
1.16	National Programme of Pasture Seeds	0	200	300	0	500
1.17	Development of pest crop/aquatic resources free areas	1130	850	124	156	2260

1.18	Refurbishing and equipping the Biotech Laboratory.	550	250	150	150	1100
1.19	Establishment of Quarantine Station at Ibafo, Port-Harcourt, NAIA, Abuja upgrading of the existing one at MAKIA, Kano.	1208	750	213	245	2416
1.2	The diagnostic and screening laboratory: Enhancement Development, Programme through procurement of laboratory equipments reagents and Biologics.	1091	600	240	250	2181
	Sub-Total	21490.0239	23853.549	20586.0269	16592.4	82522
2	Support to Commercial Agriculture					
2.1	National Abattoir Management and Development Programme	1426.75	1426.75	1426.75	1426.75	5707
2.2	National Livestock Products and Market Development Programme	628.75	628.75	628.75	628.75	2515
2.3	Intensive Commercial Livestock Development Programme	779.75	779.75	779.75	779.75	3119
2.4	Vessel Monitoring System (Fisheries)	0	172	172	171	515
2.5	Seed Industry Development	2507	2537	2875	2904	10823
	Sub-Total	5342.25	5544.25	5882.25	5910.25	22679
3	Land and Water Management					
3.1	Land Cadastre Initiatives	13000	12700	15200	14900	55800
3.2	Soil Fertility Management (Soil Testing)	850	1300	1570	1570	5290
3.3	Promotion of conservation Agriculture & reclamation of problem soils	250	260	260	260	1030
3.4	Zauro polder Irrigation project	-	8020	5020	2020	15060
3.5	Middle Ogun Irrigation project	-	1320	1000	1000	3320
3.6	Capacity Building of professionals/perfomance Assessment of Dams/Irrigation project	-	80	70	50	200
3.7	Ukwa Land Reclamation and Irrigation scheme	-	200	350	200	750
3.8	South Chad Irrigation project	-	1200	800	800	2800
3.9	Girinyan Irrigation project	600	600	500	0	1700
3.10.	Construction of weir and Irrigation Scheme	100	200	200	300	800
3.11	Tunga-Kawo Dam and Irrigation project	200	200	600	0	1000
3.12	Illa-Ebu Irrigation project	500	300	500	0	1300
3.13	Dadin Kowa Dam and Irrigation project	400	400	100	200	1100
3.14	Challawa Karaye Irrigation project	500	300	300	0	1100
3.15	Small Scale Irrigation project Delta	900	800	700	600	3000
3.16	Itu Irrigation/Drainage/flood control project	150	460	260	0	870

3.17	Ofu-Imabolo Irrigation project	60	470	590	0	1120
3.18	Small Scale Irrigation Scheme Goronyo	200	400	400	0	1000
	Sub-Total	17710	29210	28420	21900	97240
4	Linkages and Support to Inputs and Products Markets					
4.1	Tropical fruits Development in Nigeria	200	270	270	350	1090
4.2	Lagos Fishery Terminal	1500	3000	3500	2000	10000
4.3	Fertilizer Quality Control	236.08	118.04	118.04	118.04	590.2
4.4	Seed Certification and Quality Control	280	879	650	0	1809
4.5	Provision of Tools and Material	64	254	254	256	828
4.6	Seed Research and Studies	-	60	25	30	115
4.7	Establishment of Documentation Centre	550	250	180	120	1100
4.8	Upgrading Training School and Bilingual facilities	430	200	130	100	860
4.9	Procurement of 20 4WD project vehicles for the surveillance of border stations & Procurement of 100 motorcycles to access different terrains of the border stations.	1500	700	400	400	3000
4.10.	Enhancing SPS requirements as Outlined by Codex and IPPC.	800	350	250	200	1600
4.11	Building of 2 New Interstate Control Posts.	1770	120	900	750	3540
4.12	Cooperative Strengthening for Agricultural Development	1050	700	650	700	3100
4.13	Cooperative Rural Micro-Finance	550	500	370	310	1730
	Sub-Total	8930.08	7401.04	7697.04	5334.04	29362.2
5	Programme Coordination, Monitoring and Evaluation					
5.1	Aquatic Resource Health, Monitoring and Evaluation Programme	0.65	0.3	0.2	0.15	1.3
502	Coordination Monitoring and Evaluation	750	500	500	500	2250
	Sub-Total	750.65	500.3	500.2	500.15	2251.3
	GRAND TOTAL	54223.0039	66509.139	63085.5169	50236.84	234054.5

6.4. Risks.

Although the realization of the output and outcome of the NAIP faces many challenges, two risk factors in the implementation of the NAIP are critical. They are the uncertainties associated with the petroleum sector that accounts for the bulk of

the country's foreign exchange earnings and the likelihood of budget instability characteristic of the upcoming federal government presidential elections. The uncertainties of oil earnings can have substantial effect on budget releases. In 2008, only 78.5 percent of the budget allocation for the FMARD was released; in 2009, available data for the first two quarters indicate that only 29.5 percent was released. The release pattern, despite being below allocation is also untimely, which could result in delayed implementation profile, cost overrun and project abandonment. In these cases, the benefits of the projects are unlikely to be realized. This risk is likely to be heightened by the upcoming federal presidential elections in 2011. The likelihood of increased un-programmed projects being included in the capital budget allocation, especially constituency projects, is high. This may lead to an increased in the resource gap and further delay the implementation of the NAIP. Both risks are not easily mitigated but could be dealt with by strengthening project monitoring modalities.

ANNEX I

Results Framework

Overall agricultural development target (Impact level):

1) Reduce poverty level by 50 percent by 2015 from 2006 level
2) Reduce the proportion of people under-nourished by 50 percent from 2006 level by 2015
3) Achieve real agricultural GDP growth rate of at least 8 percent per annum

Outcomes (Paragraph 2.2)	Expected results	Project/development Initiatives	Indicators	Sources of information
1. Secured Food and Feed Needs of the Nation	Achieve a 100 percent increase in crop subsector l productivity by 2015.	-National Programme for Food Security (NPFS), -National Fadama III development project -Multinational NERICA rice dissemination project. -Tropical fruits initiative, Roots and Tuber expansion programme	Productivity of crops cultivated by type	Agricultural production survey report
	Expand dairy production and milk yield from the current less than 2,000 kg to 5,000kg per cow per lactation by 2015.	-National Abattoir Management and Development Programme -National Livestock Products and Market Development Programme -Intensive Commercial Livestock Development Programme -National Dairy Development Programme -National Breed Improvement and Conservation Programme - National veterinary services	Livestock productivity by type	Agricultural production survey report
	Increase current production of about 700,000 tonnes of fish to about 3 million tonnes.	-Fish Quality Assurance and Disease Control - Lagos Fishery Terminal	Incremental fish catch per unit effort by fishermen (both stocked water bodies & artisanal capture fisheries)	Fishery production survey
	Reduce by 50percent by 2010, the number of households that are food insecure	-National Programme for Food Security (NPFS), -National Fadama III development project -Multinational NERICA rice dissemination project. -Tropical fruits initiative, Roots and Tuber expansion programme	Household Food Insecurity Access Scale (HFIAS) Body Mass Index (BMI)	National nutrition survey report
	Increase by 30 percent the number of households that have adequate dietary	National Programme for Food Security (NPFS), -National Fadama III development project -Multinational NERICA rice dissemination project. -Tropical fruits initiative, Roots and Tuber expansion programme	Household dietary diversity (HDD)	National nutrition survey report
2. Enhanced National	Increase by 20	- Market information system		

Outcomes (Paragraph 2.2)	Expected results	Project/development Initiatives	Indicators	Sources of information
and Social Wealth through greater Exports and Imports Substitution.	percent the value of agricultural products exported by 2015	development - Promotion of agro-industries	Value of total agricultural export	Economic statistics from NBS
	Reduce the present level of food import (worth over $3 billion per annum) by 50 per cent in 2015 and by 90 per cent in 2020.	-National Programme for Food Security (NPFS), -National Fadama III development project	Domestic and export-import parity prices by major commodities	Economic statistics from NBS
	Derive about 10 per cent of the nation's foreign exchange earnings through agro-industrial exports by 2015.	-Promotion of cotton, cassava, palm oil, cocoa, groundnut, cowpea, soybean, sesame, tomato, sugarcane, etc.		
3. Enhanced agro-industrialization and employment levels.	Reduce the post harvest loss of agricultural produce by an average of 50 per cent in 2015.	- Development of pest crop/aquatic resources free areas - Aquatic Resource Health, Monitoring and Evaluation Programme - Strengthening the National Food reserve agency - Development of storage facilities		
	Increase by 20 percent the value addition of agricultural products through processing and nutrient fortification	- Development of small and medium Agro-Industry enterprises - Promotion of Public Private Partnerships - Strengthening the National Food Reserve Agency -		
	Increase by 30 percent of available rural infrastructures	- Rural roads construction - Market infrastructures development -		
4. Efficient Exploitation and Utilization of available Agricultural resources.	Increase the size of irrigated land from current 1 per cent of cultivable land to 10 percent by 2015.	-Dam and irrigation systems in Rabah, Tungan,Ede, etc. -Small scale (minor) irrigation systems	Percentage of areas cultivated under irrigation	Agricultural production survey report
	Increase area of land planted with diversified biomass including economic species in agro forestry program from current 3.5 to 7 percent in 2015.	- Promotion of woodlots - Erosion control programs - Orchards development -	Percentage of arable country land under sustainable management	Agricultural production survey report
	Complete the establishment of gazette forest and grazing reserves by 2015.	- Establishment of National pasture/forage research institute, kofare, Adamawa with outstations in Kebbi, Okpanam in Delta State, Shika Zaria, Ebonyi and Ilorin.	Percentage of arable earmarked as protected area	Agricultural production survey report
5. Adoption of appropriate and efficient technologies.	Achieve an efficient agricultural extension delivery system which includes extension worker farmer ratio of 1:500 by 2020.	- Establishment of National Swine Research Institute Enugu with outstation in Otukpo,Benin and Ibadan. - Establishment of National Sheep and Goat Research Katsina with outstation in	Number of extension agents per 1000 farmers Expenditures on agricultural research as % of AgGDP	

Outcomes (Paragraph 2.2)	Expected results	Project/development Initiatives	Indicators	Sources of information
		Owerri (for West African Dwarf species), Akure,Isanlu and Kogi		
	Achieve the adoption of improved varieties/species of seed and brood stock by 50 per cent of the farmers by 2015 and 75 per cent by 2020.	- Seed Industry Development - Seed Certification and Quality Control - National Seed Laboratory Development - Foundation Seed Multiplication - Tree and Horticultural Seed - National Programme of Pasture Seeds - Provision of Tools and Material - Seed Research and Studies	Productivity of improved seeds compared to old ones Percent of area cultivated with improved seed	
	Increase by 30 percent the use of fertilizers by farmers across the country	-Agriculture soil testing program, - Fertilizer Quality Control - Organic Fertilizer Development and Promotion	Ratio of fertilizer use per unit of land (by type of fertilizer)	Agricultural production survey report
	Increase by 50 percent the use of animal traction and small machinery for agricultural production across the country	-Animal Traction and Hand Tools Technology Programme -Food Crops Production Technology Transfer Stations and Field Offices	Percentage of land farmed using mechanization (including animal traction and small machinery)	Agricultural production survey report

ANNEX II

PUBLIC-PRIVATE-PARTNERSHIP (PPP) FRAMEWORK FOR NAIP

And Success Story on Rice value Chain by Olam Nigeria Limited in Benue State, Nigeria

What is Public Private Partnership (PPP)?

PPP is a relatively new approach to project financing and management that is still emerging. There are numerous models and practices that fall under this generic concept. In the simple and broad sense, it refers to any arrangement where there is a collaborative relationship between public sector institution(s) and private sector(s) aimed at harnessing (and optimizing the use of) all available resources, knowledge and facilities required to promote efficient, effective, affordable, accessible, equitable and sustainable delivery of services. It has been used in agriculture, water resources, health, education, transportation, sports and all other sectors in all parts of the world.

Defining the Private Sector

The term private sector has a broad and narrow meaning. In the broad sense, it means all institutions that are not created by governments (i.e. federal, states and local governments in the Nigeria context), and are therefore not under the hands-on control or influence of government apart from the general statutory regulatory roles of governments in the economy. Many organizations fall under this generalization, but a further classification is always made to distinguish commercial private institutions (the so called for profit private sector) from non-commercial private institutions (the so called not for profit private sector). In the narrow sense, it is the for profit private institutions that are referred to as Private Sector Organizations (PSOs). The not for profit private institutions on the other hand are more popularly referred to as Non Governmental Organizations (NGOs) or Civil Society Organizations (CSOs) or Community Based Organizations (CBOs) or Non State Actors (NSAs) etc.

The participation of PSOs (usually registered as companies or enterprises) in CAADP projects will be motivated primarily by financial goals but in some instances, they may consider some projects as part of their Corporate Social Responsibilities (CSR). Generally, PSOs will be involved as consultants, contractors and investors. The regular engagement of consultants and contractors in the execution of government projects on fee for service basis does

not qualify such projects as PPPs because their services are merely procured as inputs into such projects. The projects will become PPPs where the PSOs are involved as investors – sharing (tangible and intangible) risks, responsibilities and rewards with government owned institutions.

Public-Private Partnership Options

Generally, most PPP practices will fall under either or a combination of the following categories with varying degrees of depth and sophistication:

a) Management contracting or outsourcing. Here, government owns and finances the project but appoints a PSO to operate it on its behalf. The PSO's remuneration is structured to be a combination of a fixed management fee and a variable success (performance) fee which will be based on its ability to meet set targets. Because the PSO is staking part of its fee, it is considered to be an intangible investor in the project.

b) Leases. Here, government owns and finances the construction (capital) phases of the project but leases (rents) it out to a PSO for a fixed income to government. The PSO finances the operations (recurrent aspects) of the projects and earns the net returns after paying the rentals.

c) Concessions. Here, government owns and finances the construction (capital) phases of the project but grants a PSO the permission (concession) to run it. The PSO finances the operations (recurrent aspects) of the project. The government's remuneration is structured to be a combination of a fixed concession fee and a variable dividend from the profit generated from the project. In some cases, the PSO will be expected to upgrade the facilities either from its own resources or by plowing part of the dividend due to government back into the project.

d) Build, Operate and Transfer (BOT) arrangements. This entails the involvement of the private sector in the completion of all or some aspects of a government project's development in such a way that the PSO funds and manages the project, and takes income generated from it until an agreed threshold is reached before government takes over. It may or may not entail a temporary change of ownership but ultimately, ownership reverts back to government.

e) Joint Venture (JV) arrangements. Here, government and the private sector agree to jointly own the project, invest their funds (as equity) and share profit from operations under the PSO's management. It could be a temporary or tenured JV where a terminal date is set for the winding down of the relationship and appropriation of the project's assets & liabilities. It could also be a permanent JV where a Joint Venture Company (JVC) is formed to drive the relationship.

f) CSR projects. Here, some PSOs may agree to invest funds or goods and services (i.e. in cash or kind) in public sector projects or other forms of PPP projects without gaining direct financial returns.

Note on Nigeria Rice Initiative for CRS report 2010

The Rice Farming Initiative, which was commenced in 2005 with one value chain activity in Benue State, has been expanded to three states with the

The Fact Sheet 2005 - 2009 / 10	2005	2006	2007	2008	2009/10
Area covered in hectares	1,200	3,095	5,741	6,463	10,462
No of farmers	1,000	2,560	5,423	5,880	10,250
Inputs credit to farmers FBN 75% + Olam 20% + farmer 5% in US $	96,000	350,000	830,000	1,640,000	3,186,667
Paddy purchased from farmers in MT	1,009	7,425	6,933	9,414	9,691
Payment to farmers through buy back in US $	320,000	2,200,000	2,600,000	3,580,000	3,586,667

addition of Kwara and Anambra States. Following the success of the initiative in the previous years, the coverage was expanded to more than 10,000 farmers spread across 650 registered farmer cooperatives and 25 Local Government Areas of these States. The Benue and Anambra Initiatives have been funded by Olam (US $ 1.3 M) through the input distribution of certified seeds of improved varieties, fertilisers, herbicides and other plant protection chemicals. The Kwara Initiative has been funded through the partnership of First Bank of Nigeria to a credit level of US $ 1.9 M.

These initiatives have been built up on a very strong partnership model with USAID, NAIC, State and Federal Government of Nigeria and First Bank of Nigeria. The Capacity building programs have been conducted by the Collaboration of USAID MARKETS project (Maximising Agricultural Revenues in Key Enterprises at Targeted Sites). The entire cultivation of this initiative was covered under the Insurance Scheme of Nigeria Agricultural Insurance Corporation (NAIC) against all natural calamities. First Bank of Nigeria has given the inputs credits to Kwara farmers. Agricultural Development Projects (ADP), the extension arm of the federal and state government has organised the farmers and mobilised them into the initiative.

Results:

The initiative resulted in an increase of yields from a low 1.5 MT to 4 MT / ha for the farmers. The use of improved varieties produces more uniform paddy that commands a higher price for farmers and ensures better quality rice for the market that can effectively compete with the imported rice.

Drivers

Food Security:

A global food shortage beginning in 2007 led to rapid increases in commodity food prices. The pressure to produce more food, and the opportunity to profit from increased commodity prices, motivated Olam to look at opportunities for expansion.

Making Markets:

Olam recognized the growing demand for high quality imported rice in Nigeria. Transitioning farmers to modern varietals and improved practices would allow Olam to domestically produce an alternative to imported long grain rice.

Environmental Awareness:

As populations and incomes grow, the demand for food production increases, and traditional farming practices promote deforestation and expanded use of land rather than increasing yields from existing land. Olam supports sustainable yield increases, which reduce deforestation and increase prosperity for small holders with no access to additional land.

Impact:

Increased yields

- Yields among participating farmers have nearly tripled.
- Increasing the volume of paddy produced without clearing additional land.
- Increased production density also eases collection logistics and costs

Increased profits

- Profits to participating farmers have more than doubled

- Making small scale farming a viable business, and leading to rapid expansion from fast following farmers who see tangible rewards from current participants.

Increased employment

- Provided 250 regular employment to the local and rural community through the rice mill and created 600,000 man-days in the farming area of 10000 farmers

Farmer sustainability

- Farmers who reserve the increased profits from the sale of paddy can self finance their seed and input purchasing in the second year. In practice, most farmers continue to use financing, with full repayment of loans with each harvest. Increased wealth is primarily spent in rural areas on local goods and Services