

Preliminary Report

Dakar, June 2010
Version date: 9 June 2010

Executive Summary

To follow

Contents

Executive Summary	ii
1. Introduction	1
4. The Nigeria National Agricultural Investment Plan	4
5. Technical Review Outcomes	5
Component 1: Alignment with CAADP vision, principles and strategy elements.....	5
Component 2: Consistency with long terms growth and poverty reduction options.....	2
Component 3: Adoption of best practices and inclusion of core programme elements	10
Component 4: Alignment with country commitments.....	19
Component 5: Operational realism	21
Annexure 1: CAADP Post-Compact Guide – see attachment	24
Annexure 2: ECOWAS ‘s 13 points from Cotonou for investment plans	25
Annexure 3: Post Review Road Map Template	26

1. Introduction

The Federal Ministry of Agriculture and Water Resources has developed a National Food Security Programme. The vision of the programme is to ensure sustainable access, availability and affordability of quality food to all Nigerians and for Nigeria to become a significant net provider of food to the global community. 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 growth rate agreed to under the CAADP. The National Agricultural Investment Plan (NAIP) translates the strategy of the Federal Government of Nigeria into programs and projects that facilitate the attainment of the development goals of the country.

This report documents the findings of the AUC-NEPAD review of the 2010 – 2012 three year National **Agriculture and Food Security Investment Plan (NAIP)** for Nigeria. The report focuses on the degree of alignment with CAADP principles and frameworks as contained in the broader CAADP Guide and Pillar Framework documents. The review commends the efforts of the **Federal** Government of Nigeria for putting in place a comprehensive plan to respond to poverty, hunger and nutritional demands for her own people in the context of CAADP. The review proposes areas for strengthening of the NAIP so as to contribute more strongly to attaining the CAADP goals and outcomes in the country. The core questions asked in reviewing the plan are found in the CAADP Implementation Guide, Post Compact review Guide, and Inter-pillar guide for CAADP implementation that is informed by the more detailed Pillar Frameworks and Companion Document on Livestock, Fisheries and Forestry, among others.

The Comprehensive Africa Agricultural Programme (CAADP) was endorsed by the African Heads of State at the Maputo Summit in 2003 as a strategy to transform African agriculture and address poverty and food insecurity in sustainable ways. CAADP represents a new era in international development and is transforming not only the largely neglected agricultural sector but creating innovative and unique development partnerships. The comprehensive and inclusive agenda has seen an unprecedented involvement of:

- (i) Inter-Ministerial formulation of inter-sectoral strategies and investment plans that are country-driven and country-owned;
- (ii) The private sector, civil society, and farmers' organizations in identifying the priorities for agriculture-driven growth;
- (iii) Technical expertise across the continent in establishing policy frameworks, implementation guides and tools that provide a sound base and guide for evidence-based planning; and
- (iv) Development Partners and Bilateral Agencies in common dialogue and planning.

Today CAADP represents a social transformation agenda with wide-reaching influence on the transformation of development aid architecture and development planning. CAADP provides numerous opportunities for value addition, offering support in the development of comprehensive agriculture investment plans and monitoring and evaluation systems; independent political, technical and financial review of investment plans; peer review; and capacity development.

CAADP is gaining momentum, creating positive peer pressure among African governments to prepare quality strategies, translated into investment plans; ensure enabling policy environments to implement the plans; and translate these plans into programmes that are efficient at stimulating growth and reducing poverty. As a result of a process involving all stakeholders in the region, the Economic Community of West African States (ECOWAS) developed an Agricultural Policy (ECOWAP) as the means of implementing CAADP in West Africa. The ECOWAP was adopted on 19th January 2005 in Accra by the Heads of State and governments of the region. The ECOWAP is based on a vision to build "a modern and sustainable agriculture, founded on effective and efficient family farms and the promotion of agricultural enterprises through private sector involvement. It aims at ensuring that agriculture is not only productive and competitive within markets in the Community and internationally, but also guarantees food security and serves as a source of decent income for its operators".

ECOWAS's Regional Agricultural Investment Programme (RAIPs) and National Agricultural Investment Programmes (NAIPs) focus on six thematic areas that combine three ECOWAP thematic areas and the four CAADP Pillars:

- (i) improved water management;
- (ii) sustainable farm development;
- (iii) improved management of the other natural resources;
- (iv) development of agricultural chains and market promotion;
- (v) institution building; and

- (vi) reduction of food insecurity.

The outcomes of these plans have been validated and the modalities governing their implementation are contained in the Compact among technical and financial partners, civil society stakeholders and socio-professional farmers' organizations signed at national conferences on the financing of agriculture.

This report documents the findings of the AUC-NEPAD review of Nigeria's 3-year National Agriculture and Food Security Investment Plan (NAIP). The report focuses on the degree of alignment with CAADP principles and frameworks as contained in the broader CAADP Guide and Pillar Framework documents. The review commends the efforts of the Nigerian Government of putting in place a comprehensive plan to respond to poverty, hunger and nutritional demands for her own people in the context of CAADP. The review proposes areas for strengthening of the NAIP so as to contribute more strongly to attaining the CAADP goals and outcomes in the country. The core questions asked in reviewing the plan are found in the CAADP Implementation Guide, Post Compact review Guide, and Inter-pillar guide for CAADP implementation that is informed by the more detailed Pillar Frameworks and Companion Document on Livestock, Fisheries and Forestry, among others.

2. Review Context

ECOWAS and its member countries have taken a strong leadership role in advancing the Comprehensive Africa Agriculture Development Program (CAADP), an initiative of the New Partnership for Africa's Development (NEPAD), which is a program of the African Union. Twelve of the fifteen ECOWAS member states, plus the ECOWAS regional economic community itself, have signed their compacts. Through these compacts, member States commit to scale up and work towards attaining or surpassing 10% of their national budget for agricultural development to establish an enabling environment to attain a minimum of 6% annual agricultural sector growth and reduce hunger and poverty.

Following the signing of their strategies, countries have developed their CAADP country investment plans. The investment plans then undergo technical review led by the African Union Commission, the NEPAD Planning and Coordinating Agency (NPCA), REC and CAADP Pillar Institutions. This post-compact technical review is a critical step in the operational implementation of the country strategies and investment plans. The primary objective is collectively to evaluate for:

- i. the likelihood for the investment programs to realize the growth and poverty reduction prospects laid out in the different strategy scenarios carried out for the roundtable and summarized in the different roundtable brochures;
- ii. the use of best practices and other technical guidance in the pillar framework documents in designing the above investment programs to increase efficiency;
- iii. the technical realism (alignment of resources with results) and adequacy of institutional arrangements of the programs;
- iv. the integration of CAADP principles of inclusive review and dialogue;
- v. the consistency with budgetary and development assistance commitments and principles agreed in the compact;
- vi. adequacy of institutional arrangements for effective and efficient "delivery" including information and knowledge support, M&E and on-going evaluation and learning;
- vii. coherence and/or consistency between policies, implementation arrangements and delivery mechanisms and investments areas, priorities or programme objectives;
- viii. appropriateness and feasibility of the indicators for impact and system or capacity improvement and accountability; and
- ix. extent and quality of dialogue, (peer) review and mutual accountability system potential to contribute and link to regional integration objectives.

The purpose of the technical review is to enhance the quality of agricultural development and increase effectiveness of domestic and foreign development assistance for agricultural growth, food security and reduction of hunger and poverty. The review is to ensure that every possible action is being taken to achieve the objectives and targets laid out in the plan and defined in the CAADP agenda will be met. The review should be seen and approached as an exercise to lay the groundwork for successful implementation of the strategy approved at the compact roundtable and reflected in the compact and NAIP.

As key outcomes of the Business Meeting, there should be clear set of concrete implementable actions to:

- (i) immediately mobilize the required expertise, capacities, and partnerships for immediate on-the-ground implementation;
- (ii) establishing a mechanism to facilitate joint donor commitment to financing and thereby release the resources required to meet the funding needs of the plans within a reasonable time;
- (iii) streamlining of review and appraisal processes and standards to speed up individual donor processing; and
- (iv) establish the knowledge systems for an inclusive review, M&E, mutual accountability, learning and impact assessment including on-going consultations and dialogue to enhance implementation as well as development and design of new programmes.

Once reviewed and adjusted, the investment plans are presented to the international community at a Business Meeting for endorsement and mobilising of resources for financing the funding gaps. As CAADP is the continentally agreed-on benchmark for quality investment strategies, existing and new development partners, the private sector, and emerging funding architectures respect the recommendations and endorsements of CAADP.

Under the leadership of the Country Teams, the investment plans and related programmes will be implemented along with:

- (i) detailed project design and costing;
- (ii) establishment or strengthening of monitoring and evaluation systems;
- (iii) building the necessary capacity for implementation;
- (iv) policy change to ensure an enabling environment;
- (v) establishment or strengthening of the necessary institutional elements for an enabling environment; and
- (vi) alignment of long-term reforms in related other agricultural strategies, Poverty Reduction Strategies, SWAPs and related sector programmes.

3. The Components, Methodology, Criteria, and Tools of the Review

The basic approach of the review consists of assessing proposed actions and outcomes in the programmes against CAADP principles and country specific targets, objectives, practices, and approaches defined and agreed in the country CAADP compact. The criteria are measures of the consistency or lack thereof of the programs with the above indicators. The main components and tools for the review include the following:

- (i) Alignment with the NEPAD-CAADP principles, values and targets: The CAADP Implementation Guide setting out the vision, principles, core strategy elements, and impact expectations;
- (ii) Coherence and consistency with long-term growth and poverty reduction objectives and targets: The roundtable brochures and technical background documents defining the long-term agricultural productivity, growth, and trade performance, and the related poverty outcomes;
- (iii) Embodiment of technical best practices and CAADP priority areas/issues: The Pillar Framework Documents laying out the key strategic issues, core program elements, and best practices;
- (iv) Operational quality and implementation readiness and alignment with compact commitments: The CAADP compact specifying the policy, budgetary, development assistance, review, and dialogue commitments;
- (v) Detailed investment programs showing inputs, outputs, outcomes, and institutional arrangements; and
- (vi) The donor coordination guidelines for CAADP support at a country level outlining modalities for engagement between local development partner agencies, government and other stakeholders.

The review is conducted along five broader components, namely:

Component 1 reviews alignment with CAADP vision, principles, and strategy elements to ensure that all key vision elements, principles, and strategy core elements, as defined in Annex I of the CAADP Post Compact Guide are reflected in the country's programs and, where there are gaps, to help identify these in order to ensure full alignment.

Tool: CAADP Implementation Guide

Component 2 looks at the consistency of the investment plan and the potential impact on long term growth and poverty reduction options. This section evaluates whether:

- (i) the overall growth targets that are specified or implied in the plans, in general, and
- (ii) the changes in individual sub-sectors and related targets, in particular, diverge from the sector-wide performance and poverty reduction outcomes underlying the long term strategic scenarios. For instance, each of these scenarios is linked to required changes in sub-sector growth rates, trade performance, overall public expenditure levels, and assumptions about the efficiency of sector policies.

This component also presents a comparative country profile, based on the nearly two dozen CAADP indicators being tracked by ReSAKSS for all African countries, to show the current standing of each country with respect to its peers, and thereby identify gaps to be bridged.

Tools: Brochures, technical background documents, investment program documents

Component 3 seeks to establish whether the investment plan includes the adoption of best practices and inclusion of core program elements. The aim of this assessment is to find out where clearer definition and understanding of the strategic issues is required and where better integration of best practices can help improve the design of the plans and maximize benefits of growth. The CAADP Post Compact Guide Annexes II to IV present a set of specific guides and tools, prepared by the Pillar lead institutions as part of the Pillar framework documents, which provide criteria and step-by-step approaches to designing high quality plans.

Tool: Pillar Framework Documents and Pillar Implementation Guides and Tools

Component 4 focuses on alignment with compact commitments and its objective is to agree on: (i) a joint action plan to meet the policy, budgetary, and assistance commitments and (ii) identify and confirm modalities for mutual review, including dialogue fora and supporting knowledge systems to track and report on such commitments.

Tools: CAADP Compact, Brochure 5, and Donor Guidelines for CAADP support at country level

Component 5 reviews the operational realism of investment programs and seeks to verify and confirm the adequacy of the content, cost and institutional arrangements, and where necessary, to identify the operational and design improvement to be carried out to ensure successful implementation. The task in this section is to verify the extent to which the key elements and features listed in Table 1 of the CAADP Post Compact Review Guide are reflected in the investment plans.

Tools: Detailed investment programs

4. The Nigeria National Agricultural Investment Plan

This report documents the findings of the AUC/NEPAD review of:

- (i) Nigeria National Agricultural Investment Plan (2009 – 2012)
- (ii) National Food Security Programme

Nigeria's Agricultural Investment Plan outlines the financial aspects of the plan, and so provides the road map towards achieving the vision for the agricultural sector. The Nigeria Agricultural Investment Plan is a comprehensive medium-term plan, which outlines and costs the activities proposed by Nigeria to achieve at least 10% growth in the agricultural sector, slightly above the target set by NEPAD's CAADP initiative, to stimulate the type of growth needed to transform Nigeria's rural areas and to significantly reduce poverty levels.

The major challenges Nigeria faces are eradicating poverty, achieving food security, ensuring global competitiveness and sustainable management of natural resources to achieve rapid development. Only 46% of arable land is cultivated. Farm sizes are small. Fertilizer supply has been sporadic with low application rates. Less than 10% of irrigable land is irrigated. Post harvest losses are between 15 and 40% of harvests and livestock and fish is in short supply. Although malnutrition has been declining, a significant proportion of the population is food insecure.

The NAIP is formulated as a five-point agenda including:

- (i) The **Developing Agricultural Policy and Regulatory System (DARPS)** for 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.
- (ii) Establishment of an **Agricultural Commodity Exchange Market (ACCOMEX)** for 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.
- (iii) The **Raising Agricultural Incomes with Sustainable Environment (RAISE)** Programme that focuses 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.
- (iv) **The Maximising Agricultural Revenue in Key Enterprises (MARKETS)** programme that 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.
- (v) The **Water, Aquaculture and Environmental Resource Management Programme** that seeks to develop 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.

5. Technical Review Outcomes

Component 1: Alignment with CAADP vision, principles and strategy elements

The Nigerian National Agricultural Investment Plan (NAIP) was formulated within the broader context of the NV:20 (Vision 2020); National Food Security Programme and the Medium Term Sector Strategic of the Ministry of Agriculture and Water Resources. Steps taken to develop the NAIP included:

- Stakeholder consultations;
- A review of on-going agricultural development efforts to inform the development of a long term development strategies under Vision 2020. This helped The Government of Nigeria identify agriculture as a major driver of growth in the Nigerian economy; and help set targets to achieve a three-fold and six-fold increase in domestic agriculture productivity by 2015 and 2020 respectively;
- A review of agricultural growth, poverty reduction and food security (past performance and prospective outcomes);
- An analysis of Strategic Options and Sources for Agricultural Growth, Poverty Reduction and Food Security; and
- Analysis of Long Term Funding for Agricultural Growth, Poverty Reduction and Food Security and finally
- The establishment of Nigeria Strategic Analysis and Knowledge Support System to inform and guide CAADP implementation processes.

The road map and consultations outlined informed the development of the strategy as set out in the Nigerian Compact signed on 30 October 2009. The formulation and elements of the strategy align with the CAADP vision for Africa that, by 2015, Africa should:

- (i) Attain food security;
- (ii) Improve agricultural productivity to attain a 6 percent annual growth rate;
- (iii) Develop dynamic regional and sub-regional agricultural markets;
- (iv) Integrate farmers into a market economy; and
- (v) Achieve a more equitable distribution of wealth.

The Nigerian Agricultural Investment Plan, developed to implement the strategy, proposes seven major programmes each of which have detailed sub-programmes that align with CAADP pillars:

- i. Development of Agricultural Chains and Productivity implemented by The Federal Department of Agriculture;
- ii. Improving Surveillance and Quarantine Implemented by Agriculture Quarantine Services;
- iii. Seed Industry Development Programme implemented by the Seed Inspectorate Services;
- iv. Fisheries and Aquaculture Production Programme implemented by the Fisheries Department;
- v. Livestock Sector Development Programme implemented by the Livestock Development;
- vi. Dam, Irrigation Rehabilitation and Expansion Programme implemented by the River Basin Development Authority; and
- vii. Intensification of Applied Research Programme implemented by the Agricultural Research Council of Nigeria.

The programmes and sub-programmes of agricultural chains and productivity development have interventions that relate to rural marketing infrastructure development, community warehousing, road rehabilitation and private sector support services which align with pillar 2. Sub-programmes under Surveillance and quarantine particularly aquatic health resource, development of pest-free areas and dealing with SPS at the ports align with pillar 4 and 2. The entire sub-programmes of Seed Industry development to enhance national seed multiplication effort to increase improved seed varieties align with pillar 4. Nigeria is proposing a comprehensive programme on fish and livestock which align with pillar 3 and 2. This recognizes the importance of the fishery and livestock industries to meet domestic market consumption, income generation and food security. Significant investment in dams and irrigation across the country to increase production and productivity align with all the pillars but particularly pillar 1 and similar investment in agricultural research programme to make agriculture technologically driven align with pillar 4.

Nigeria faces unique challenges in the implementation of a national strategy due to the Federal State system. Attention is required to the implementation modalities (explained in later sections of the report) to ensure inter-sectoral and inter-ministerial coordination of programmes at National and Federal State levels. Similar attention is required for coordination, mainstream or interfacing the Food Security Programme with the programmes outlined in the National Investment Plan

In line with CAADP values and principles, the Nigerian strategy development has included stakeholder consultation and the private sector is included in the strategic programmes, although (as outlined later), the role and contribution in terms of financing by the Private Sector could be more detailed.

A section of the investment plan outlines partnership programmes with various development partners and bi- and multilaterals agencies. However, it is not clear on the structures to ensure coordination among government, donors, civil society and private sector to ensure strategic coordination and harmonization of donor efforts, as well as responsiveness and mutual accountability. Cross ministry coordination arrangements also need further attention.

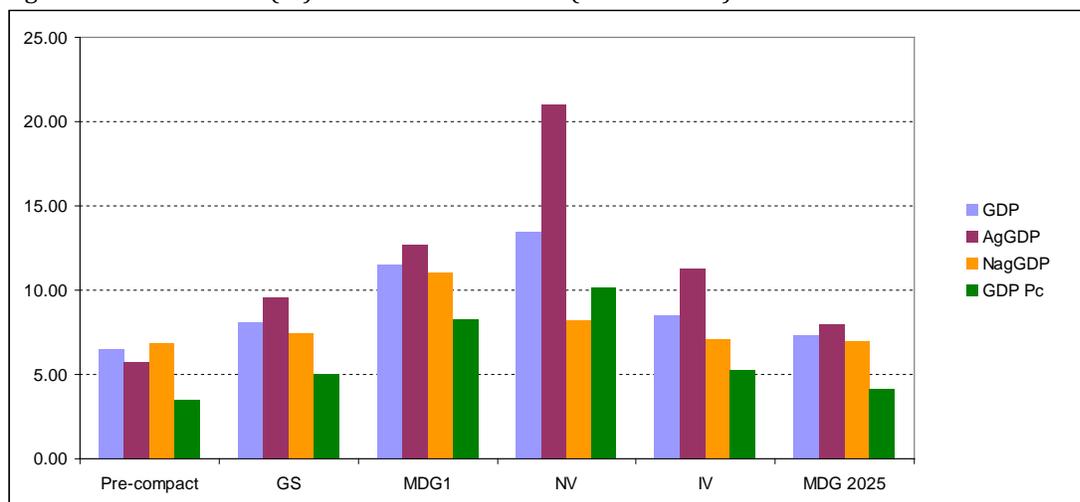
Component 2: Consistency with long terms growth and poverty reduction options

According to the key scenario considered in the roundtable projection, the Government Strategy (GS) scenario¹, the economy was to grow at 8.15% p.a. in the 2011 -2017 period. This would not lead to the achievement of MDG1 by 2015 but would allow the country halve its 1996 poverty level by 2017. Another scenario considered, the MDG1 Scenario, indicated that a GDP growth rate of 11.5% would lead to almost halving the 1990 level by 2017. However at the roundtable, participants elected to target the achievement of MDG1 by 2015 although this would require a GDP growth rate of above 12%. Participants opined that with improved efficiency this would be possible. Achieving a 12% growth rate appears challenging. If the country

¹ The GS scenario primarily implemented the government's targets in the National Food Security Programme (NFSP), the Presidential Initiatives and the 2007- 2009 Agriculture sector Medium Term Sector Strategy.

were to pursue 8% and 7% agriculture and GDP growth rates respectively, it would approximately reduce the 1990 poverty level by one third and half by 2020 and 2025 respectively. This is indicated in Scenario MDG 2025.

Figure 1: Growth Rates (%) in Different Scenarios (2011 – 2017)



C. Sectoral growth outcomes under the investment plan

The Nigeria NAIP has the overall target of achieving 10% agriculture sector growth in the 2010 – 2013 period as a means of achieving the country’s long term poverty reduction plans. One key strategy for achieving this and other long term goals in the Vision 2020 is to increase agricultural productivity 2, 3 and 6 fold by 2012, 2015 and 2020 respectively. A related strategy is achieving 50% and 75% adoption of improved varieties by 2015 and 2020 respectively. In the NAIP and Vision 2020 document an increase in share of irrigated area from less than 1% to 10% and 25% by 2015 and 2020 is targeted. A reduction of post harvest losses by 30%, 50% and 90% by 2012, 2015 and 2020 respectively is also targeted.

Changes in the extent of irrigation and post-harvest losses as well as several other recommended changes in the NAIP and Vision 2020 will clearly lead to improved productivity in the agriculture sector. In this review we assess 2 of these strategies: the planned increases in agriculture sector productivity and achievement of increased adoption rates. The NAIP-VISION 2020 productivity targets are implemented in the NV Scenario. Achieving the productivity increases targeted in the NAIP would lead to growth rates which are higher than GS, MDG 2025 Scenario or the MDG1 Scenario. Agriculture GDP would grow at 21% from 2011 to 2017².

Achieving the NAIP’s productivity objective, although clearly a difficult challenge, would allow the country to achieve the growth targets in the above scenarios. It would also lead to much higher growth rate than the 10% targeted in the NAIP. It then seems that the productivity increases in the NAIP need not be so high in order to achieve the desired growth rate. The GS Scenario which achieves a 9.6% agriculture growth rate from 2011 – 2017 requires an increase in agriculture productivity of 1.4 times by 2015. However this is to occur if the increases in land usage targeted for certain crops in the 2007-2009 MTSS and the presidential initiatives occurs. The MDG 2025 Scenario indicates that a 1.4 fold increase in agricultural productivity would be required to achieve 8% Ag GDP growth from 2011 – 2017 with land usage growing at its normal historical

² The analysis for the roundtable projections aimed at achieving the targets in the National Food Security Programme in 10 years (2008 – 2017) rather than the original 4 years (2008 – 2011) stated in the document. This was because the yield increases required in 4 years were exceedingly high. 10 years seemed a more feasible period to achieve such large increases. This analysis uses the same model and its 2017 timeframe. The 2017 targets for productivity and improved varieties adoption above are interpolated for use in the model. In the analysis, post-2017 straight line extrapolations are made using the model’s results.

rate. This gives us an idea of the kind of productivity increases required to achieve 10% agriculture sector growth.

Table 1: Required Increases In Agriculture Total Factor Productivity

	Annual Ag TFP Growth rate ('09-15)	No of folds Increase in Ag TFP (2015/2009)
BASE	2	1.1
S-COMBN	4	1.4
S-MDG2	7	1.7
S-NV	15	3.0
S-IV	7	1.7
S-Feas	4	1.4

An issue related to the feasibility of the NAIP's targeted productivity increases is the extent to which improved varieties are adopted and reduced post harvest losses and improved irrigation can lead to the magnitude of productivity increases targeted. To do this, in Scenario-Improved Varieties (Scenario IV), we implemented the NAIP and Vision 2020 improved adoption rates for 6 key staple crops in the 2015 and 2017 periods. These crops are collectively important as they accounted for over 50% of agriculture GDP in 2006³.

Table 2: Improved Varieties Adoption Rates

	Potential Yield (Source: ReSaKSS WA 2010)	Projected 2009 Yield (Based on 2006 yield and historical yield growth rates)	Yield Gap (% difference)	Targeted Yields					
				2015	2016	2017	2018	2019	2020
Rice	5.4	1.5	251	3.5	3.7	3.9	4.1	4.3	4.5
Cassava	28.4	13.2	116	21.2	22.0	22.7	23.5	24.3	25.0
Maize	4.0	1.4	187	2.7	2.8	3.0	3.1	3.2	3.4
Sorghum	3.2	1.4	134	2.3	2.4	2.5	2.6	2.7	2.8
Millet	2.4	1.5	58	2.0	2.0	2.1	2.1	2.1	2.2
Yam	18.0	8.3	116	13.5	14.0	14.4	14.9	15.4	15.9

The potential yields above represent yields achieved by farmers on their own farms with improved seedlings and technology, farm practices and funding from special programmes. This is different and lower than the optimal yields achieved by agriculture scientists in research station farm trials. Due to differences in conditions, yields achieved on research stations are usually lower than those achieved in farmer managed farms. For the purpose of policy making we chose to work with the latter. The targeted yields for 2015 and 2020 were obtained by taking the weighted average of the potential yield and the expected yield of each year if yield growth progressed at historical rates. The weight here is the adoption rate in each year. The targeted yields for 2016 – 2019 were interpolated from those of 2015 and 2020.

In assessing the implications of achieving these yields we ascertained the increases in each crop's productivity that would be necessary to achieve these yields. Altogether, achieving these yields would require a 1.7 fold increase in agriculture productivity by 2015. The impact of achieving this is significant as agriculture GDP would grow by 11.3% in the 2011 – 2017 period. Since there are many other agriculture products that can still benefit from productivity increases, it would appear that there is considerable room for

³ Calculated from Nwafor et al (2010) A Social Accounting Matrix of Nigeria: Methodology and results

increased output. In this scenario we also observe that achieving this sub-set of the NAIP's targets is sufficient to achieve the 9.5% Ag GDP growth rate achieved in the GS Scenario above.

More importantly, improving the productivity of these few but key crops is enough to achieve the 10% growth targeted in the NAIP. However, it should be noted that the gaps between present and potential yields are considerably high and increasing adoption rates would be an expensive and challenging task. For cassava, for example, the adoption rate in Africa as a whole is about 18% (IITA (2010)). Increasing this to 50% and 75% in Nigeria would be very challenging as there were at least 3 million cassava farm families in 2009⁴. The yield gaps above range from 58% – 251% and perhaps reflect low adoption rates. With such gaps a lot of effort would be required to achieve the implied growth rate above.

D. Agricultural sector spending under the Proposed Investment Plan

To ascertain the adequacy of proposed funding it would be instructive to compare the proposed NAIP budget to the required funding in Table 4 below. Table 4 indicates the funding requirements for achieving the GS scenario targets which would require a 4% annual growth rate in Agriculture TFP in the 2009 – 2015 period compared to 2% required under the pre-compact (current trends) scenario (Table 1). The funding requirements depend on the magnitude of increases in agriculture TFP. As can be noted from table 1 above, all the scenarios except the MDG 2025 scenario, require higher TFP growth rates compared to the GS scenario. This implies that larger amounts of funds will be required to achieve them.

However, the amounts budgeted in the NAIP are much less than the amounts required in the different scenarios above in real terms (2006 prices). Comparing the 2012 figures in columns 5 and 7 for example indicates that under the high elasticity scenario, 302 Billion Naira is required to achieve the GS objectives. However, the NAIP budgets 156 Billion. The same applies to 2010, 2011 and 2013. Hence larger funds will be needed to achieve the GS objectives. If the more feasible MDG 2025 scenario is implemented a similar level of funding to that of the GS scenario would be required.

Table 3: NAIP Budget

Sub-Sector	#Projects	2010	2011	2012	2013	Cumulative
NPAFS (Net financing)a/	3	15.7	35.3	28.5	9.4	88.9
Department of Agriculture	25	48.4	52	50.9	-	151.3
Agriculture Quarantine	13	5.1	4.4	4.2	-	13.7
Seed Inspectorate Services	9	-	5.2	6.2	5.9	17.3
Fisheries	7	2.9	4.6	5.2	3.6	16.3
Livestock	7	17.3	21	23.5	-	61.8
Water Resources	263	90.3	129	81.3	27.3	327.9
ARCN	6	24	54	27	15	120
Total	333	203.7	305.5	226.8	61.2	797.2

⁴ Estimated using the Nigeria Living Standards Survey 2003/4 data and historical population growth rate.

Table 4: Funding Requirements for Agriculture Growth

	Current Trends (1)	Government Strategies				NAIP Expenditure		CPI (8)
		Agricultural TFP growth driven by agricultural expenditure only (GS-Ag only)		Agricultural TFP growth driven by both agricultural expenditure and non agricultural expenditure (GS Ag + non Ag)		2010 Prices (6)	2006 Prices (7)	
		low elasticity (2)	high elasticity (3)	low elasticity (4)	high elasticity (5)			
2006	185	185	185	185	185			151
2009	212	351	271	300	236			
2010	222	435	308	352	257	204	140	220
2011	232	538	350	414	278	306	210	
2012	243	667	398	486	302	227	156	
2013	254	825	452	571	328	61	42	
2014	266	1022	513	671	356			
2015	278	1265	583	788	386			
2016	291	1567	663	926	419			
2017	305	1940	753	1087	455			

Source: Brochure 4 of the CAADP roundtable documents, NAIP and Authors calculations.

Table 5 below indicates that with more efficient spending only 4.4% of the national budget would be needed by 2015 to achieve the GS strategy. However with less efficient spending 8.6% would be needed. If the MDG 2025 strategy is implemented it can be expected that the same percentages would apply as they have similar productivity and GDP growth rates. However, under the NAIP it is unlikely that such high percentages would be achieved as the NAIP requires very high growth rates and the present budget is inadequate even for the GS scenario. If the NAIP were to be successfully funded and implemented it would probably exceed the 10% target as the relative growth required in the agriculture sector is much higher compared to the GS scenario.

Table 5: Estimated resource allocation to the agricultural sector

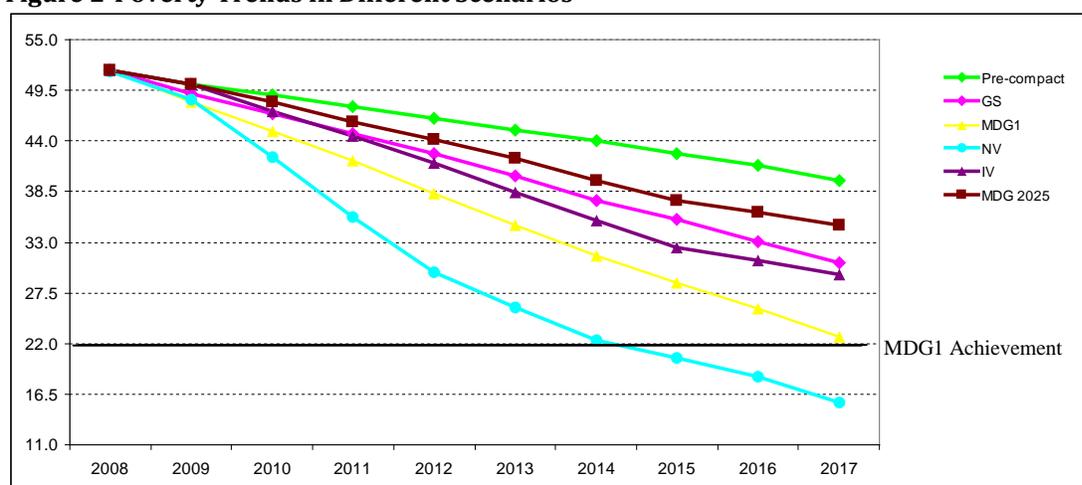
Indicator		Current Trends	Government Strategy (GS)			
			Agricultural TFP growth driven by agricultural expenditure only		Agricultural TFP growth driven by both agricultural expenditure and non agricultural expenditure	
			low elasticity	high elasticity	low elasticity	high elasticity
Annual growth rates in GDP (%) 2009 - 2017						
	GDP	6.5	8	8	8	8
	Ag GDP	5.7	9.5	9.5	9.5	9.5
	Non-Ag GDP	6.7	7.5	7.5	7.5	7.5
Annual growth rates in expenditure (%)						
	Total spending	7	8.6	7.4	9.1	8.5
	Ag spending	4.7	23.8	13.6	17.5	8.5
	Non-Ag spending	7.1	7.1	7.1	8.5	8.5
Estimated results						
Share of Ag spending in Total spending (%)						
	2015	3.6	14.6	7.3	8.6	4.4
	2017	3.5	18.6	8.1	9.9	4.4
Ratio of Ag spending to AgGDP (%)						
	2015	2.7	9.1	4.2	5.7	2.8
	2017	2.7	11.7	4.5	6.5	2.7
Ratio of Total spending to GDP (%)						
	2015	22.1	21.6	19.9	22.8	21.8
	2017	22.3	22.2	19.7	23.3	22

Source: Brochure 4 of the CAADP Roundtable Documents

E. Poverty Outcomes under the Proposed Nigeria NAIP

Achieving the NAIP's productivity objectives would lead to achieving the MDG1 by 2014 (scenario NV). Under its productivity objectives, the poverty level would fall from 51.6% in 2008 to 22.4% and 20.4% in 2014 and 2015 respectively. Achieving its 10% growth objective would not lead to the achievement of MDG1 by 2015 as indicated by the GS scenario's results which is based on a 9.6% 2011-17 Ag GDP growth. Under the GS scenario the 1990 poverty level would be reduced by about 20% by 2015 and by about one-third by 2017.

Figure 2-Poverty Trends in Different Scenarios



Achieving the NAIP's productivity target would lead to greater poverty reduction than all the other scenarios. However, the 13.5% growth rate (2011 – 2017) required to do this would be difficult to achieve. The most feasible scenario, the MDG 2025, which requires an agriculture sector growth of 8% in the 2011 – 2017 period would lead to approximately reducing the 1990 poverty level by one-third and half by 2020 and 2025 respectively. As at 2015 it would be an improvement on pre-compact (current trends) outcome: the pre-compact scenario would lead to a 3% reduction in the 1990 poverty level while the MDG 2025 scenario would lead to a 15% reduction by 2015.

Conclusions

The following conclusions can be reached:

- (i) The NAIP's successful implementation would achieve the growth and poverty targets discussed at the roundtable. It's productivity targets are more than sufficient to achieve reasonable growth and welfare targets. However, the magnitude of increases planned would be very challenging to achieve;
- (ii) A more realistic growth and productivity increase set of targets which can achieve appreciable reduction in poverty such as the MDG 2025 targets can be achieved. This would require lesser increases in productivity than targeted in the NAIP;
- (iii) There is considerable room for agriculture growth in the economy given that focusing on improving the adoption rates for key staples can lead to a growth rate of above 10%. Adding the influences of improved product storage and processing as well as irrigation will have greater effects. However, achieving these rates would be expensive and challenging;
- (iv) The present funding requirement for the NAIP is inadequate for achieving its targets or even those under the Government National Food Security Programme and related programmes; and
- (v) Successfully funding and implementing the NAIP would lead to the achievement of the Maputo 10% target. However, this is unlikely at the present NAIP budget levels.

Recommendations:

- a) The NAIP is a compilation of targets from different government strategy documents which include the National Food Security Programme (NFSP), Presidential Initiatives, and the 2007- 2009 Agriculture sector Medium Term Sector Strategy. The government needs to harmonize these targets in a consistent manner; for example, yield targets need to be in line with land use and technology adoption targets;
- b) Successful implementation of the NAIP is expected to achieve long term benchmarks for both agricultural growth and poverty rates. However, the magnitude of expected increases calls for a critical review of technological feasibility of targeted yields;
- c) MDG1 by 2025 appears as more realistic for both agricultural growth and poverty reduction. It requires more manageable increase in crop productivity than targeted in the NAIP. Therefore, the proposed investment program should be tailored to the MDG-2025 targets;

- d) Successfully funding and implementing the NAIP would lead to the achievement of the Maputo 10% target. To succeed, this commitment would need to be sustained;
- e) Increased coordination is needed of the proposed NAIP and other related government programs;
- f) There were no data to evaluate food and nutrition security trends. It is vital that the necessary arrangements be made to regularly update the baseline household survey information that was used during the pre-compact analysis such as to facilitate tracking of poverty, food and nutrition security, and distributional impacts of the investment plans;
- g) The costing of the NAIP which is more ambitious than the model scenario (21 % agricultural growth versus 9.5%) seems to be underestimated compared to the estimation of funding requirements of the model scenario. Therefore, the costing has to be confirmed; and
- h) Given the high increase of required agricultural funding, the capacities of the institutions involved in the NAIP and budget implementation should be evaluated before the implementation of the strategy.

Component 3: Adoption of best practices and inclusion of core programme elements

C3.1 Pillar 1: Sustainable Land and Water Management (SLWM)

The National Agricultural Investment Plan/Medium-Term Sector Strategy (NAIP-MTSS) activities cover the three main components of Pillar 1 (Land Management, Water Management and Land Administration).

C3.1.1 Land Management

The METASIP clearly recognizes that current sustainable land management measures are inadequate to meet the set goal. Some of the noted constraints to agricultural growth are low unit land productivity, low fertilizer use, lack of soil testing facilities and the failure to fully exploit the irrigation potential. The appreciation that soil testing is an important measure in the effort to improve land productivity is important and will lead to implementing a programme that includes this important aspect of land management.

Amongst the main objectives for the plan, there is a clear desire to exploit agricultural resources efficiently, promote development and dissemination of appropriate and efficient technologies. The budget allocation to Pillar 1 (sustainable land and water management) activities is substantial. The National Agricultural Investment Plan/Medium-Term Sector Strategy (NAIP-MTSS) activities cover the three main components of Pillar 1 (Land Management, Water Management and Land Administration). The plan to increase cultivated arable land by 10% annually is noted and appreciated that this would make a substantial contribution to agricultural growth.

A lack of clarity and elaboration on some sustainable land management activities is noted e.g. how the 50 gazetted grazing reserves planned will be managed.

Recommendations:

- a. It is observed that MTSS seeks to undertake sustainable integrated agricultural production and sustainable agricultural land management which are consistent with SLM. However, specific and detailed activities need to be elaborated;
- b. It will be of great help to spell out how the increased range land will be managed in terms of the land management techniques. This needs to be done to avoid the degradation of newly opened up land; and
- c. There is a plan to increase the land under cultivation. This is also commendable. However, as land under cultivation is increased, measures on land degradation mitigation should be instituted

C3.1.2 Water Management

The plan clearly states that one of the main prioritized activities is dealing with agriculture water management which includes irrigation and flood control infrastructure development and rehabilitation. The strategy identifies ground water

as additional source of water for agriculture. It is also encouraging that transboundary water resources management and integrated water resources management issues are raised.

Conflict over land use is possible. Strategies to prevent conflicts are not outlined.

Recommendations:

- a) It has been noted that the NAIP/MTSS seeks to undertake hydrological and hydrology geology studies, construction of dams and irrigation infrastructure, sustainable integrated water resources management and trans-boundary water resources management which are consistent with agricultural water management. However, specific and detailed activities need to be elaborated; and
- b) It is further suggested that on-farm water harvesting technologies be considered as some of the well-tested water management technologies.

C3.1.3 Land Policy/Administration

The intention to facilitate acquisition of farmlands and title holding is commendable but this needs to go hand in hand with land policy reforms although the current land policy is not clear from the submitted document.

Recommendations:

- a) There is need to have detailed information on institutional capacity building and development of Land Information System. This is important information for the implementation of the programme;
- b) As land administration and policies are being developed there is need to ensure that the farmland distribution and acquisition strongly favors nationals.

C3.1.4 Climate Change

Climate change is a global concern with devastating implications on agriculture, health and food security and is expected to worsen the food supply and exacerbate the widespread poverty in Africa. Five main climate change related drivers: temperature, precipitation, sea level rise, atmospheric carbon dioxide content and incidence of extreme events, may affect the agriculture sector in Africa by:

- ✓ Reducing crop yields and productivity due to an increase in temperature;
- ✓ Increase incidence of pest attacks due to conducive temperature for a proliferation of pests that are detrimental to crop production;
- ✓ Intrusion of salt water into inland freshwater resources limiting the availability of water;
- ✓ Exacerbate drought periods with threatened crop failures;
- ✓ Reduction in soil fertility due to reduction in soil moisture, moisture storage capacity and the quality of the soil, which are vital nutrient for agricultural crops;
- ✓ Reduce livestock productivity through its effect on availability of feed and fodder; and
- ✓ Affecting the availability of human resource through increasing incidences of malaria, sleeping sickness and other infectious diseases.

The impact of these adverse climate changes on agriculture is worsened in Africa by the lack of adapting strategies due to the lack of institutional, economic and financial capacity to support such actions. Consequently, Africa's vulnerability to climate change and its inability to adapt to these changes may be devastating to the agriculture sector which is the main source of livelihood to the majority of the population.

It is worth noting that the Federal Ministry of Environmental will be engaged from the onset in the implementation of most of the agricultural activities. The decision to employ mitigation measures is laudable, as is the recognition of the potential to benefit from bio-energy development and a carbon credit facility through forestation and reforestation. However, what is not clear are the mechanisms for building capacity on carbon credit facility. There is also a need to develop activities which will build these mechanisms.

Disaster risk reduction measures, particularly sustainable land, water, and forest management; coastal and urban development; watershed management, increased agricultural productivity; health and social issues are key areas of adaptation that need to be considered in the development agenda. Responding to such adaptation measures expand beyond the boundaries of the Ministries of Agriculture and Environment alone to rather involve several stakeholders not only at the national level, but also at the local level.

Recommendations

- a) The Country needs to demonstrate how it plans to address climate change. Some of ideas could include:
- Discussion on the nation's ability to identify, observe, and monitor the stresses that influence agriculture, land resources, water resources, and biodiversity, and evaluates the relative importance of these stresses and how they are likely to change in the future;
 - Establish local "climate change adaptation platforms" involving Multi-disciplinary set of stakeholders including climate science experts, agricultural practitioners and technicians, local communities/civil society, donors and policy makers should collaborate to participate in efforts to address and respond to climate change based on local needs;
 - A key challenge involves extending the capacity that currently exists in agro-meteorological disciplines to include agro-climatic competency;
 - Local institutions must be allowed to explore the relevant issues and develop the broad set of institutional capacity and technical skills that will equip them for the challenge; and
 - The FAO Guidance to Best Practices (FAO 2007; FAO 2009b, 2009c) on Climate Change could be used by the Country to develop its climate change response and adaptation strategies.

C3.2 Pillar 2 – Improving markets and infrastructure

C3.2.1 Pillar 2 – Raise the competitiveness and seize opportunities in domestic, regional and international markets

The Nigerian Investment Plan mentions they wish take advantage of the opportunities that exist in domestic fish and livestock market by investing in the necessary infrastructure and in the establishment of an Agricultural Commodity Exchange. The strategy includes plans to develop export oriented production such as (off season vegetables, sesame, tropical fruits, rubber).

The country could gain more from regional trade through diversification into new products and markets, regional trade facilitation, capacity for trade policy analysis, and development of a market information system. The plan needs to discuss how it will address sanitary and phytosanitary measures, seed certification and quality control, fish quality and certification.

Recommendations:

- a) Harmonization of trade and quality management and certification policies at federal and regional level need to be prioritized;
- b) Pursue a regional trade facilitation agenda on main corridors to link Nigeria to the regional market;
- c) Extend the quality management and certification services to downstream activities along the value chain;
- d) Carry out market assessment studies to identify new emerging markets in Nigeria urban centers so as to identify niche and opportunities for local producers;
- e) Carry out market assessment studies to identify regional and international market opportunities;
- f) Consolidate and harmonize the state level market information collected; and
- g) Develop a system for information flows to end-users.

C3.2.2 Pillar 2 – Invest in commercial and trade infrastructure to lower cost of supplying domestic, regional and international markets

The NPFS program design includes comprehensive investments in rural and commercial infrastructure development. These include rural roads, water and energy for the main agricultural growth poles within each state (Through Public Private Partnership), development of community warehouses, conditioning centers located within Agro-parks designed within each state and finally, development of an efficient market infrastructure (for fish and livestock).

The above investments are to be developed as private sector initiatives yet the plan does show how the private sector will be engaged in the process. Besides the public-private partnership approach designed for rural roads, the plan needs to show who will make investments in the infrastructure mentioned above.

Recommendations:

- a) Provide a plan on how partnerships with private sector investor and the local authorities will be pursued; and
- b) Provide information on opportunities that promote investment opportunities in the agricultural sector.

C3.2.3 Pillar 2 – Develop value chains and access to financial markets

The NPFS in particular, has developed a comprehensive approach to value chain development for strategic commodities such as livestock, dairies, and fisheries. This approach was extended in the proposed investment plan to other value chains such as cotton, horticulture and ground nuts through the development of modern quality inputs production and provision through the development of an extensive network of sales points throughout the country, storage and processing equipment, access to credit for smallholders through guarantees and development of Agro-parks.

Further attention should be paid to improve the access to financial service provisions for farmers (including those not involved in cereal production) who want to be able to take advantage of the development of the guarantees system and Small and medium scale agri-related enterprises.

Recommendations:

- a) Further attention should be paid to developing other financial service provisions such as micro insurance, savings and transfer of money building on the innovation practices introduced by IT development;
- b) Development of the market for and provision of financial services through the development of a transitory guarantee fund;
- c) Develop linkages between agro-parks and market research and information for the identification of market needs;
- d) Develop linkages between agro-parks and research centers for dissemination of innovative technologies regarding processing and packaging; and
- e) Integrate FBOs in the Agro-park development as potential partners.

C3.2.4 Pillar 2 – Strengthening the commercial and technical capabilities of farmer organizations and trade associations

The NPFS pays specific attention to cooperative development and farmer group formation but little attention is given on how to build FBOs capacity and competence for agribusiness.

There is need for more involvement of FBOs in downstream value chain activities. This will be possible through design of capacity building efforts that target FBOs. There are numerous good programs and practices now working in West Africa that can serve as a model, including in Nigeria.

Recommendations:

- a) Integrate FBOs in the Agro-park development as potential partners in the delivery of services and entrepreneurship; and
- b) Develop effective and scalable tools to support partnerships and alliances between governments, private sector operators and leading local Farmers Organisations and Trade Associations (FO/TAs) in order to broaden the access of smallholder farmers to commercial and technical services.

C3.3 Pillar 3 – Reducing hunger and poverty

Identifying strategic options and sources of poverty reducing growth for the agriculture sector between now and 2020 is one of three goals of the Nigerian CAADP Compact. The National Food Security Programme

(NFSP) is the strategic framework for the National Agriculture Investment Plan (NAIP) and sets out the vision of the agricultural sector as 'to ensure sustainable access, availability and affordability of quality food to all Nigerians and to be a significant net provider of food to the global community' leading to significant improvements in Nigeria's agricultural production in the short-term and improved storage/processing capacity and the required market infrastructure to achieve food stability in the medium-term. The role of agriculture in the country's seven-point agenda (SPA) includes three of the four FAFS goals. The SPA includes the government's previous poverty reduction strategy.

- ✓ The objectives of the NAIP are neatly aligned with the CAADP FAFS objectives but these objectives are not as clearly mirrored in the NFSP.
- ✓ The identified NAIP priorities clearly articulate all four CAADP Pillar 3 objectives in integrated programmes, seeking to promote long-term economic and social development for food security, but are again not as clear in the NFSP. It appears that the development of the NAIP has taken the CAADP agenda and the idea of a comprehensive and integrated approach to food security beyond the NFSP.
- ✓ Programmes on fisheries and livestock development not only offer opportunities for increasing protein intake (identified as insufficient), but also provide opportunities for income generation, particularly through the 400 initial Raising Agricultural Income with Sustainable Environment (RAISE) sites and 120 fish farms.

While the NAIP includes dam and irrigation scheme programmes, the plan does not link this to improved sanitation and provision of drinking water, except through programmes listed under the 2020 vision. It is not clear how it can be assured that the provision of dams, reservoirs and irrigation infrastructure will benefit communities with regard to running and potable water. Access to clean drinking water and water for washing is an essential part of well-being and nutrition. Water provision should also be linked to the establishment of agro-processing plants – an essential element of phyto-sanitary control measures.

A focus on gender, vulnerable groups (although not characterized) and climate change appear on page 30 of the plan. While it is good to consider these groups and elements, the list of elements to monitor in programmes does not ensure that these groups and climate change are factored into the design of the investment plan and programmes. Deliberate efforts are required to ensure that programmes target vulnerable groups and address climate change concerns. Simply monitoring the application of these in projects will not ensure inclusion of these in programming. While the recommendations include a policy that programmes will only be funded if they include vulnerable groups, compliance with this may not necessarily translate into tangible benefits for the vulnerable. Addressing vulnerability requires careful consideration of the livelihoods and contexts of the vulnerable, the causes of vulnerability and how resilience can be boosted.

Recommendations:

- c) It is recommended that the NFSP is revised to more closely follow the NAIP to ensure comprehensive programmes for food security and adding value to water systems, storage systems, value chain development and improved and increased production so as to maximize the benefits of these growth elements and address some of the fundamental elements of vulnerability and food insecurity;
- d) Identifying and characterizing the vulnerable will assist in the evaluation of the NAIP and its potential to reduce poverty and hunger and will allow government to deliberately target these groups;
- e) Ensuring that programmes specifically target the commodities that the poor consume and produce and those that stimulate economic growth through provision of income or labour opportunities should be deliberately selected as priorities; and
- f) Project location (especially for agro-processing plants, fisheries and livestock projects) needs to target areas where the poor reside so as to make use of available labour, provide employment opportunities and rural livelihoods.

C3.3.1 Pillar 3 – Improved risk management

The Nigerian NAIP and NFSP include some elements that seek to reduce the risk of food insecurity and hunger.

- ✓ The Federal Department of Agriculture core programmes include community warehousing for excess farm produce. A warehouse receipt system will be established. This will play a significant role in reducing risk and encouraging storage of grain. The opportunities of using the receipts as collateral also has significant advantages and grants smallholders opportunities to access credit and so further invest in improved livelihoods is most commendable.
- ✓ Improving national strategic reserves is well thought-through and will provide the country with 5% reserve for emergencies once completed.
- ✓ Production strategies emphasize the need for promoting highly productive and disease-resistant crops, livestock, poultry and fish varieties, breeds and species. This is a positive step towards increased resilience in the production system and for livelihoods, increasing yields and incomes and building asset bases (either through savings from increased incomes or investments, household assets and/or improved production assets).

While training in post-harvest storage is mentioned, no clear programme is set out to do this, nor is there an indication of who is responsible for this training. The NAIP mentions Minimum Guaranteed Prices for grain but no indication is given regarding the pricing of grain purchased by the state for the strategic reserves.

The NFSP also mentions that power management is required to maintain the storage conditions. This may not be feasible and so alternative storage systems that require minimum or no energy should be considered.

Safety nets are mentioned in the NFSP but no detail is provided regarding this element of the plan. Safety nets are only one element of social protection – a necessary element for countries to consider in reaching vulnerable groups and protecting, providing and promoting sustainable livelihoods.

While mention is made in the NAIP to establishing an early warning system, no details are provided in the NAIP and early warning systems are not mentioned in the NFSP. No mention is made of a food security information system or coordination of food security activities and monitoring.

Recommendations:

- a) Postharvest technologies and practice needs to be included in agricultural extension training and capacity building;
- b) Incentives for depositing quality grain are required to protect storage systems. This should be monitored and managed at the stores. Price incentives motivate quality assurance at the farm gate;
- c) A clear capacity development programme for post-harvest storage is required to ensure that reserves and warehouses are well maintained and grain quality controlled. Extension staff require training in this area to support farmers and warehouse managers are required;
- d) The pricing system for strategic reserves needs to be spelt out to ensure incentives for farmers;
- e) If not in existence, an early warning system for food insecurity is required. This system should monitor at least the four FAFS indicators (required for CAADP reporting) and assist government in predicting food shortages (with lead time for releasing/moving strategic reserves), establishing trends and identifying vulnerable groups for targeted assistance and support. The same system is required to track the impact of the various programmes and projects and establish investment efficiency; and
- f) If safety nets are to be part of the risk-reduction strategy in Nigeria, these need to be elaborated and carefully designed to ensure they contribute to growth rather than compete for resources. There are many elements of the NAIP and NFSP that can provide social protection elements (for examples, public works programmes on building dams; food for work programmes; food for school programmes; conditional transfers of farm inputs for stimulating agriculture; asset transfers through livestock or vouchers; etc).

C3.3.2 Pillar 3 – Increase the supply of food through improved market linkages

Many examples are provided by the NAIP and NFSP of boosting sustainable food supply and improving market linkages to reduce price volatility. Some of these are:

- ✓ Increasing the supply of staples and livestock (including dairy) will have a significant impact on the availability of food, affordability and will smooth availability.
- ✓ Improved crop storage, strategic reserves, establishing agro-industrial parks for food processing (including dairies), support for small processors, establishing abattoirs and rehabilitation of existing facilities will all assist in extending the shelf-life of foods, improving food access and reducing the risks of food-borne disease.
- ✓ The establishment of product distribution and marketing centres will improve access to food by consumers and link smallholders to expanded value chains.

The sections of the strategy relating to these elements can be more closely linked to the promotion of livelihoods for the vulnerable and increasing incomes for the poor.

Recommendations:

- a) Elements of the NAIP related to increasing food supply can be specifically targeted at vulnerable groups to maximize the poverty-reduction potential of agricultural growth. Many of the commodities recommended in the NAIP have this potential.

C3.3.3 Pillar 3 – Increased economic opportunities for the vulnerable

As stated above, numerous opportunities are provided for increasing the income opportunities of the poor, but only if strategic programmes and projects are targeted at vulnerable groups, including:

- The promotion of ground nut production, processing and enterprises will increase income opportunities for the poor and vulnerable;
- Promoting the processing and preservation of fruits and vegetables; and
- Both the Fisheries and Livestock Department programmes include projects that consider income opportunities across the value chain.

However, without deliberate targeting and ensuring access of vulnerable groups to these opportunities, they will not necessarily benefit from growth induced through these opportunities.

Recommendations:

- a) Deliberate targeting of vulnerable groups and ensuring opportunities for various groups across the value chain is important to ensure poverty and hunger reduction.

C3.3.4 Pillar 3 – Improved dietary intakes

- ✓ The same programmes and projects listed under the section on increased opportunities for the poor and vulnerable will provide improved dietary intakes at household level if the produce is consumed by household members. Increased peanut, livestock and fish production could increase protein consumption and together with horticultural production and food processing, this could improve dietary diversity, promoting better nutrition and well-being.

Nutrition programmes are listed among the NAIP programmes but are not elaborated in the NAIP or the NFSP. The NFSP mentions school feeding programmes, but again the reach, budget allocation or quality of these programmes is not elaborated. Food security is often conceived as national food balances and stocks at the national level. While community grain reserves are considered, little emphasis is placed on understanding household and individual food security and programmes that will address this. Although the NFSP reports that undernourishment has reduced over time, and Nigeria may attain MDG1's target of reducing malnutrition by half by 2015, malnutrition is still an element to be addressed in food security programmes.

Recommendations:

- a) The NAIP could be improved through elaboration of the household and individual food security elements and identify specific programmes such as school feeding and social protection programmes that target the vulnerable. This is also a consideration with regard to HIV where sound nutrition is essential; and
- b) An assessment of micronutrient deficiencies would help prioritize food crops that could provide rich sources of these nutrients such as yellow fruits and vegetables that provide vitamin A.

C3.4 Pillar 4: Raising productivity

The NAIP comprises two components, namely the medium term sector strategy (MTSS) supported by the Federal Government of Nigeria and Partnership Programmes which are partially supported by donors. The NAIP is a collection of projects drawn from the national programme for agriculture and food security (NPFAS); the federal department of agriculture (FDA), the agricultural quarantine service, seed inspectorate services, livestock development, dam and irrigation schemes and agricultural research development. Pillar IV activities are spread across all these programmes, but they are concentrated in agricultural research and development, NPFAS, FDA, fisheries and livestock.

- ✓ The plan can be commended for identifying the elements of a national agricultural investment plan and articulating the institutional arrangements for its implementation. It recognises the roles of the relevant government departments and agencies as well as the private sector, and lay out criteria for its success. It also recognises the need to address key cross cutting issues (gender, environment, climate change).

However, the projects that constitute the NAIP appear to be fragmented. This approach to agricultural productivity programming compromises efficiency and effectiveness of the investments that are spread across these separately managed projects.

The plan does not provide sufficient detail about the various projects that constitute it. Specifically, it does not articulate the components of the Plan in a coherent and consistent fashion for all the projects. For example, some of the projects are described in more detail with a list of activities and expected results while for others the description is limited to a mention of their objectives.

The strategy is largely not compliant with most of the principles of the Framework for African Agricultural Productivity (FAAP), notably:

- (i) farmer empowerment;
- (ii) the integration of research with extension, private sector, farmer organisations and agricultural education and training;
- (iii) pluralism in the delivery of research, extension and training services; and
- (iv) coordination/harmonisation of financial support.

The strategy recognises the need for an assessment of whether the capacity required for its implementation exists. However, it does not provide any indication that such an assessment has been carried and is planned. Further, the plan proposes to establish several centres of specialisation but it is not clear whether this activity includes development of the human capacity required to operationalize the proposed centres exists. In general, the Plan does not recognise human capacity development as a priority. It would be useful for the Plan to clarify why this is the case.

The strategy is short on details about its overall coordination especially regarding the roles and responsibilities of the various actors. It projects the government agencies as the only actors responsible for implementation. It does not show the roles of non government actors (farmer organisations, private sector, education and training, NGOs) if any.

Recommendations:

- (a) The Plan needs to be strengthened to provide greater clarity and details about its elements. It should be re-organised into a cohesive plan indicating the components that constitute it, the development issues they address, the expected results and activities for each component. In re-organising the plan it may be useful to consider conceptualising the components around the CAADP pillar concept;

- (b) The Plan's revision should place considerably more attention to compliance with the principles of the Framework for African Agricultural Productivity, that is: (i) institutional reforms including the efficient use of resources for activities that are most likely to achieve productivity increases. Such reforms include farmer empowerment; subsidiarity; integration of research with extension, private sector, farmer organisations and agricultural education and training; pluralism in the delivery of research, extension and training services; and integration of gender; (ii) increasing total investment for agricultural productivity; and (iii) harmonising funding to increase the efficiency and effectiveness of its utilisation;
- (c) The Plan should consider undertaking an assessment of the human resource required for its effective implementation and compare this with the available resources. This analysis will inform the Plan's human capacity development sub-component;
- (d) Regarding coordination, the factors which are instrumental in ensuring that an agricultural investment plan is effective include: (i) efficient use of resources; (ii) effective delivery of relevant services, and (iii) effective mechanisms for accountability. Given these factors, the coordination of NAIP should be revisited to make it more inclusive by granting appropriate roles to all actors across the value chain including the public sector, the private sector, civil society and farmers.

C3.5 Livestock

The goals, objectives and output of the livestock production programme are specific. The design of the programme seems to address the critical challenges facing the livestock sector in Nigeria.

However, the programme has so far been funded up to 2008. It is important to explain why government has suspended funding. In fact the national breed improvement and conservation programme has never been funded. Lack of government commitment and interest in this programme will negatively affect its implementation. This project is also heavily dependent on private sector investment; do the potential private sector investors have the requisite technical know-how beyond the financing mechanism that the government has put in place to achieve the targets?

Recommendation:

- a) The targets for this programme need to be reviewed within the implementing timeframe if indeed this programme is to remain an element of eth investment strategy.

C3.6 Cross cutting issues

The Investment plan clearly articulates how it will deal with gender and the vulnerable. The measures outlined speak to the challenges facing women and the vulnerable. Successful implementation of this initiative will not only impact positively on the beneficiaries but also accelerate the effort of reducing food insecure population in Nigeria

Recommendations:

- a) The investment plan indicates that funds will be disbursed base on the level of involvement of the vulnerable and gender. It will be important to indicate in quantitative terms the minimum level of engagement intended by the investment plan;
- b) In implementing such a measure, it will be useful to design concise indicators, compliance and approval systems to guide decision making and strong political will at national and local levels will be required to make the initiative successful. Cross-checking system must be instituted to avoid abuse of this initiative;
- c) Clear policy guidelines and credit-merit criteria will be required to support disadvantaged women accessing funds for agricultural activities. In fact best practices of similar system should guide the design and implementation of this initiative; and
- d) Finally, it will help the project to involve social scientists in project areas where culture/traditional practices hinder women engagement in commercial (not petty or subsistence) agricultural activities.

C3.7 Monitoring and evaluation framework

The results framework links outcomes, targets strategies and initiatives giving a coherent structure to M&E framework and general results orientation to the investment plan. Most targets are specific and measurable.

The sub-programmes lined up such the support for private sector to establish 120 farm estates, stock enhancement, establishment of feed mills are worth commending. The strategy towards intensive fish production under the National Food Security Programme which serves as the foundation for the investment plan is well articulated especially with the indication of Federal, State and Private sector role and investment expectations.

However, a few indicators may not be easily measurable and may require adjustment to more accurately measure success – for example the indicator related to mechanization. In general most indicators in the results framework are at impact level – and therefore at a high level. Intermediate indicators may be useful to track progress on implementation. Realism of targets within the available time frame should also be assessed – for the most part, targets are for 2013 which gives limited time for implementation and subsequent impact. Realistic targets are necessary to accurately measure progress over time. If targets are too ambitious it may give an erroneous picture on the success of the programme. (e.g. moving from 70,000 MT of domestic fish production to 3 million MT by 2013 may be unrealistic: 750%). Again, the projected annual growth rate is projected at 25% and with that growing rate, it will take 7years to attain the targeted output. To achieve a 3 fold increase in agricultural productivity by 2015 and 6 fold by 2020 does not seem to be realistic. There must be evidence to demonstrate similar improvement trends over the last few years. There are inconsistencies in outputs described in the programme and results framework.

Recommendations:

- a) Re-assess targets established in the results framework for realism;
- b) Intermediate indicators may be useful to assess progress at lower levels and for institutional development;
- c) Greater focus on evidence-based decision-making is required along with the establishment of the necessary measuring and monitoring systems and capacity to support this. The CAADP monitoring and evaluation framework can provide a base for the requirements of this. A plan to achieve this is required and must include how existing technology and knowledge systems will be integrated into this.

Component 4: Alignment with country commitments

C4.1 Prioritization within the investment plan

The investment plan prioritization is based on gaps to current program within the context of the CAADP and national strategic framework (Vision 2020, Five point Agenda). The plan is presented with two major parts: the MTSS (funded wholly from FGN resources) and partnership programs (funded by both FGN and donor resources).

Linkage between the priorities and evidence-based analysis that should underpin them is not always clearly presented and could strengthen the rationale for the specific elements included in the investment plan. Further detail may be required on program activities to fully justify the prioritization. Proposed funding under the MTBF for 2011 and 2012 also far exceeds current allocations - there may be a need for clear prioritization of activities within a few budget scenarios to accommodate lower MTBF ceilings.

Recommendation:

- a) An expanded explanation on prioritization needs to be included in the investment plan and potential scenarios under lower budget availability need to be provided.

C4.2 Links with existing sector programmes/projects

The investment strategy is fully aligned to current sector programmes and initiatives and builds on identified gaps within them. Gaps in current programs are identified in core MTSS activities, FADAMA III, NFSP. Initiatives and programmes are relatively comprehensive in scope and have high levels of ownership within Nigeria.

The institutional interface between the core programs of FMAWR (as funded under the MTSS) and the programmes or projects (NPFS, FADAMA III) is not well articulated. Insufficient detail is provided on projects to fully assess alignment to programs and projects. The functions of various projects implementing agencies are not articulated. There seem to be overlapping activities, and under-resourcing of the Ministry activities due to projects.

Recommendations:

- a) The roles and responsibilities of the various agencies implementing agricultural projects need to be clarified; and
- b) For sustainability and clarity, the Food Security Programme should be mainstreamed into the FMAWR activities.

C4.3 Links to regional agriculture sector development plans

Regional Integration to Support Agriculture and Food Security

While Nigeria has recognized the importance of regional integration as an objective, the opportunities and the actions to promote regional integration have not been considered.

Recommendations:

- a) The country needs to set out what it expects and what it could gain from regional integration e.g. trade, technical cooperation in science and technology, resource management, early warning and emergency response;
- b) Given the strategic importance of regional trade and integration for long term growth, the plan needs to show more explicitly, how the country intends to exploit the opportunities of regional trade, and what activities will be carried out to promote trade across border corridors; and
- c) Analysis of the benefits and multiplier effects from regional cooperation is needed.

C4.4 Identification of policy issues and steps required to resolve them

The investment plan is closely linked to the FGN's current strategic framework and related agenda for policy reform and the NSFP document identifies broad policy areas and advocacy points along the 5-Point Agenda and Vision 2020 (NV20).

The investment plan is largely silent on specific policy issues and steps required to resolve them at the activity or initiative level. Although most activities presented for incremental financing represent an extension of existing programmes, it is not clear to what extent specific policy steps may be required to achieve the scale envisioned. Greater linkage of policy reforms to the outcomes established in the results framework may be useful.

Recommendations:

- a) Further detail needs to be provided on policy reforms implicit with adoption of specific approaches or activities - this could be done relatively quickly by adjusting or highlighting specific policy issues as they relate to the initiatives listed in Annex II of the results framework by adding further text;
- b) The implementation strategy needs to include other Ministries such as Trade, Finance, Environment and Forestry whose activities have direct link with the outcomes of the investment plan. It is important to initiate inter-Ministerial dialogue to explore future collaborative opportunities and establish a

coordinating and networking platform where these Ministries will meet, dialogue and synergize their efforts;

- c) FMAWR needs to collaborate with the Districts/Feeder Roads so road construction and other local level infrastructure development projects will respond agricultural needs especially by linking food producing centres to commercial markets.

Component 5: Operational realism

C5.1 Viability of implementation arrangements

Implementation arrangements are clearly articulated within the current framework at the federal and state level. Activities are embedded within institutional structures of FMAWR and its associated MDAs. The NFSP document identifies detailed implementation arrangements and institutional responsibilities at activity level.

The investment plan incorporate institutions at all levels and is primarily focused on interventions that are generated at the federal level with implementation at both federal and states level. More detail may be needed to fully articulate the coordination mechanism amongst the various MDAs and an important question will be the extent to which current structures for coordination are sufficient or require adjustment. In the longer term, the interface between state and federal institutions with respect to initiatives that are generated primarily at the state level may also need to be incorporated.

Institutional arrangements and relationships outside the FMAWR institutional structure may also need further expansion in the investment plan. The plan identifies the need to develop synergies across MDAs and other actors – private sector, civil society – and the institutional mechanisms for achieving this may need further elaboration.

Recommendations:

- a) Further detail on implementation and coordination arrangements would be needed in relation to specific programmes within the investment plan; and
- b) The coordination arrangement should also involve the private sector with well described roles and expectations. The private sector must be recognized as key actor to bring about the expected outcomes.

C5.2 Institutional assessment

As a federal system, Nigeria has a complex institutional environment –with a number of federal and state level institutions that are linked but autonomous in their operations.

The investment plan as presented demonstrates strong potential to act as an important bridge across institutions and a means for more coherently coordinating agricultural development efforts within MDAs.

A major underlying assumption within the investment plan is that institutional capacity is sufficient to manage the proposed larger investment portfolio. For many MDAs the volume of activities and resources in 2011 and 2012 are up to three times higher than the current work program under implementation in 2010. Human resource and physical resource requirements will need to be assessed in light of the proposed activities and are an important test of operational realism and timing. The current presentation of activities and budgets in the investment plan do not allow for assessment of whether these have been fully assessed and incorporated – but this will be an important consideration to the final commitment of resources. Delayed timing and implementation have also been raised as key challenges to past implementation within MDAs. Measures to address these issues or identify lessons learned should be clearly included in the future documentation.

Recommendations:

- a) A re-assessment or refinement of human and physical resource requirements at the individual Federal Ministry level needs to be conducted to ensure sufficient capacity for implementation;

- b) A reflection is required of lessons learned and potential mitigation measures taken to prevent implementation bottlenecks;
- c) The country must indicate whether the 10,000 Young Graduates to engage in Extension services (as stated in the outputs) will be hired by the Ministry. If so, significant training and funding will be required and should be provided for in the financial plan.

C5.3 Costing

The overarching costing requirements for the CAADP-required Investment Plan (IP) are as follows:

- (i) Budgets and financing plans should be aligned with stated investment priorities;
- (ii) Budgets should be detailed by projects and project sub-components; and
- (iii) Budgets and financing plans should indicate clearly how they will contribute to compliance with the Maputo Principles (i.e., a 6% growth rate in the agricultural sector p.a., and a 10% investment of the national budget p.a. to support the CAADP objectives).

The draft Nigeria investment plan prepared is largely incomplete, and does not meet the larger objectives noted here, nor does it meet the specific requirements noted in the Costing report that follows.

However, the investment plan does provide a good discussion of difficulties experienced in managing budgets and disbursements for existing agricultural programs, but unfortunately, does not include a discussion about how these issues can be rectified. As noted in the Costing Report, it would be interesting to understand why the investment plan does not include funding to support the financial management of agricultural sector programs.

Recommendations:

Revision of the following is required:

- a) Clearer descriptions of the three programs to be funded (i.e., NFSP, Fadama III, and NERICA), to include program logic, historical investments and results, and estimated outputs and outcomes for additional investment needs to be prepared;
- b) A better explanation of how these three programs fit into the universe of existing and planned investments in the agricultural sector, either to meet CAADP objectives or otherwise is needed; and
- c) A much clearer discussion of how these three programs will meet their stated objectives increasing agricultural productivity, increasing storage and processing capacity, and improving market infrastructure is required. For example, the investment plan states that the Government of Nigeria's investments in its agricultural sector should increase land under irrigation from the existing 10%; should reduce loss of post-harvest output from a current rate of 10% - 40%; should increase agricultural production from a current average of four tons per hectare; and should reduce the current 40% of household income spent on food by lowering costs of basic foodstuffs. However, the investment plan does not provide targets for these metrics and dates for achieving the results, and does not link the investment plan programs to these metrics. However, the metrics seem concrete and laudable, so providing better linkages between proposed program investments and their attainment could be persuasive in attracting funding for the investment plan programs.

C5.4 Costing and detail budget estimates (by expenditure category)

The rudimentary budget provided for the CAADP-required costing information is organized appropriately (estimated overall cost for program-related expenditures; existing or anticipated government contribution for the programs; existing donor contributions; and funding gaps), but the information is incomplete. There is no:

- break-down of recurrent vs. development expenditures at the portfolio, project, or sub-project levels;
- detailed information on existing government versus donor commitments for the programs comprising the CAADP investment plan; and
- detailed information on the financing gaps for the programs comprising the CAADP investment plan.

Recommendations:

- a) The country team needs to create a comprehensive portfolio and program budget (sources and uses of funds) and an indicative financing plan, down to the level of unit costs, and according to the CAADP guidelines and templates.

C5.5 Public Financial Management Capacity and broad macro framework

While a sector context and data were provided in the investment plan, a discussion of the financial management capacity was not included in the investment plan documents. A broader discussion of performance of the country's agricultural sector would be helpful, as well as a comprehensive discussion of the framework for management of public finances (strengths, weaknesses, and capacity). It would be useful for the drafters of the Nigeria investment plan to explain how any necessary improvements in the financial management structure for the CAADP-sponsored program will be funded.

Recommendations:

- a) A broader discussion of performance of the country's agricultural sector and a comprehensive discussion of the framework for management of public finances (strengths, weaknesses, and capacity) is required and the proportion of private sector investment expected;
- b) The country needs to explain how any necessary improvements in the financial management structure for the CAADP-sponsored program will be funded;
- c) A risk assessment needs to be conducted and reported; and
- d) A cost-benefit analysis will be required as part of the implementation process.

Annexure 1: CAADP Post-Compact Guide – see attachment

Annexure 2: ECOWAS 's 13 points from Cotonou for investment plans

NAIPS are to be set out to present:

1. Origins of the investment plan (history)
2. Areas to be covered
3. Detailed description of the programmes and how they relate to ECOWAP
4. Overview of the intervention strategy
5. Evaluation of costs and financing
6. Economic and financial analysis
7. Implementation strategy
8. Synergies between programmes
9. Implications for regional public programmes
10. Safeguard for monitoring
11. Institutional evaluation
12. Monitoring and evaluation
13. Risk assessment

Annexure 3: Post Review Road Map Template

National Agriculture Investment Plans	Activities and Benchmarks	Point	June 2010	July 2010	August 2010	Sept. 2010	Oct. 2010	Nov. 2010	Dec. 2010	Follow-on Comments
<u>Component 1: Alignment with CAADP vision, principles and strategy elements</u>										
[Identify issue]	<ul style="list-style-type: none"> [bullet out specific actions] 	[list who is responsible]	[insert due dates]							
	<ul style="list-style-type: none"> 									
<u>Component 2: Consistency with long terms growth and poverty reduction options</u>										
	<ul style="list-style-type: none"> 									
	<ul style="list-style-type: none"> 									
<u>Component 3: Adoption of best practices and inclusion of core programme elements</u>										
	<ul style="list-style-type: none"> 									
	<ul style="list-style-type: none"> 									
<u>Component 4: Alignment with country commitments</u>										

	•				
	•				
Component 5: Operational realism (including institutional and capacity building)					
	•				
	•				
ACCOUNTABILITY					
Monitoring and Evaluation/Policy Analysis	•				
	•				
IMPLEMENTATION ARRANGEMENTS					
GAFSP (Global Hunger & Food Security Program)	•				
	•				
OUTSTANDING COSTING ISSUES					
Costing of Program areas	•				
	•				
Financing Plan Presentation	•				
	•				
GAFSP CONCEPT PAPER					

Concept Paper Development	<ul style="list-style-type: none"> • • 				
ANALYSIS NEEDS					
Beneficiary Analysis	<ul style="list-style-type: none"> • • 				
Cost Benefit Analysis	<ul style="list-style-type: none"> • • 				
Prioritizing Programs	<ul style="list-style-type: none"> • • 				
Alignment with other Agricultural strategies and programs	<ul style="list-style-type: none"> • 				
Policy Analysis	<ul style="list-style-type: none"> • • 				
Environmental Assessments as Needed	<ul style="list-style-type: none"> • • 				
Gender Analysis	<ul style="list-style-type: none"> • • 				
ACCOUNTABILITY					
Monitoring and Evaluation/Policy Analysis	<ul style="list-style-type: none"> • • 				