AGRICULTURE SECTOR MEDIUM TERM SECTOR STRATEGIES (MTSS) 2018-2020

HEINRICH BÖLL STIFTUNG



Centre for Social Justice (CSJ)

A Memorandum from Civil Society Organisations (CSOs) Working in the Agriculture Sector

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(Mainstreaming Social Justice in Public Life)

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ACRONYMS

APP ATA AU AUMD CAADP CSA CSJ CSOs ERGP EXCoF	Agriculture Promotion Policy Agriculture Transformation Agenda Africa Union African Union Maputo Declaration Comprehensive African Agricultural Development Programme Climate Smart Agriculture Centre for Social Justice Civil Society Organisations Economic Recovery and Growth Plan Executive Council of the Federation
FDAE	Federal Department of Agriculture Extension
FGN FMARD	Federal Government of Nigeria Federal Ministry of Agriculture and Rural Development
FMB&NP FMoE	Federal Ministry of Budget and National Planning Federal Ministry of Environment
FMoWR	Federal Ministry of Water Resources
FRA	Fiscal Responsibility Act
GCF	Green Climate Fund
GDP	Gross Domestic Product
GEF	Global Environment Facility
GHGs	Green House Gas
ICESCR	International Covenant on Economic, Social and Cultural Rights
IGR INDC	Internally Generated Revenue Intended Nationally Determined Contributions
LGAs	Local Government Areas
LPG	Liquefied Petroleum Gas
MDAs	Ministries, Departments and Agencies of Government
MDGs	Millennium Development Goals
MTEF	Medium Term Expenditure Framework
MTSS	Medium Term Sector Strategies
NARF	National Agricultural Resilience Framework
NARS	National Agricultural Research System
NASPA-CCN	National Adaptation Strategy and Plan of Action for Climate Change in Nigeria
NASS	National Assembly
NCA	National Council on Agriculture

NDC NGO	Nationally Determined Contributions Non-Governmental Organisation
NIMET	Nigerian Meteorological Agency
NIRSAL	Nigeria Incentive-Based Risk-Sharing System for Agricultural Lending
PPP	Public Private Partnership OR Public – Public Partnership
SDGs	Sustainable Development Goals
SURE-P	Subsidy Reinvestment and Empowerment Programme
UNFCCC	United Nations Framework Convention on Climate Change
USD	United States Dollar

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EXECUTIVE SUMMARY

This memorandum is divided into 2 parts of 9 sections. The first section is the introduction which deals with the background, the rationale for the exercise and outlining linkages between the Medium Term Sector Strategies (MTSS), Medium Term Expenditure Framework and the annual budget. It identified high level national and international policies and standards on Agriculture and concluded with the delineation of the structure of the sector in Nigeria.

Section 2 is on the key challenges of the sector and laying out goals, objectives and targets based on the high level national and international policies and standards. Section 3 reviews existing budget commitments 2013-2017 and identifies low budgetary allocation to the sector, late and partial release of appropriated funds and defines the capital recurrent expenditure mix. Section 4 is on key Agriculture sector achievements in the past decade whilst section 5 is on MDA projects and activities that should be sustained. Section 6 is on the sector projects that are performing poorly while section 7 deals with other Agriculture sector challenges.

Part 2 contains sections 8 and 9. Section 8 is about activities and interventions proposed for the medium term. This includes the review of the special window for Agriculture financing, issuance of green bonds, tapping into the climate change financing mechanism, promotion of cooperatives, full implementation of the Agriculture Promotion Policy (APP) and reduction of post-harvest losses. Others are investments in agro forestry, provision of alternative domestic fuel for poor households, use of resistant and genetically improved animals and crops, creating dedicated pastures for grazing, and soil and nutrient management. It further discusses the policy, plan, budget continuum; formation of sector teams for future budget planning, adoption of best practices in public procurement and renewable energy and Agriculture establishments' energy access. Part 9 is the concluding part which is about the summary of policy recommendations. The recommendations are detailed as follows.

1. FUNDING

- i. Allocate 10% of the total annual national budget to the Agriculture sector in compliance with the Maputo Declaration of 2003. Where not possible, start with a minimum of 5% (being 50% of the Maputo Declaration) allocation in 2018 and progressively increase by 1% until the 10% is attained by 2023.
- ii. The bulk of the new resources should go to capital expenditure on CSA to enhance access to extension services, inputs and strengthen the entire value chain. Not less than 80% of the overall expenditure should go to capital expenditure in 2018.

- iii. Review and strengthen the special windows for financing the sector (Development Bank, NIRSAL, Anchor Borrowers Programme, etc.) through increase of available funding and ensuring that more farmers, processors and operatives along the entire value chain are reached.
- iv. FMARD to ensure that Agriculture produces bankable projects to be funded under the FGN Green Bonds issuance process.
- v. Build capacity in the FMARD and tap into international Climate Financing Mechanisms to raise more funds for CSA.
- vi. Stop the sequestration of a huge part of capital votes in the headquarters of the Ministry and send them to agencies and parastatals that need them. Procurement of goods and services is best done at the level of the agency or institution that needs them.
- vii. Consider a moratorium on brand new capital projects not associated or linked with existing ones unless the project is of utmost priority. This will avoid the thin spread of available resources which produces no results. Money should be spent on completing, equipping and making functional the existing projects.

2. OPERATIONAL ISSUES

- i. Embark on soil and nutrient management, especially through the dissemination of information on the concluded soil map by the FMARD, including the proper use and application of fertilisers.
- ii. Dedicated extension services should be used to disseminate research knowledge, meteorological information, agro forestry practices, etc. to farmers and other value chain operators. This will involve collaboration between federal, state and local governments and inter agency collaboration.
- iii. Creation of dedicated pastures and promotion of ranching through collaboration with states; set up demonstration ranches and disseminate knowledge on the subject.
- iv. Use resistant and genetically improved animals and crops to increase yield and production of crops, meat, milk and other related products.
- v. Increase fertilizer use per hectare through the promotion of organic fertilizers. Also, promote organic agriculture. The need for sustainability in our farming

practices dictates that we invest more in producing organic fertitlisers and farm inputs. Beyond making the soils less acidic over the medium to long term, the process of making these fertilizers will create jobs, reduce the waste that has become a challenge to city managers as well as convert same to wealth in a winwin scenario for all.

- vi. Reduction of post-harvest losses through Public Private Partnerships and Public Public Partnerships; develop cold hubs for fruits, vegetables and tubers and small scale processing plants.
- vii. Erosion and flood control projects should be stated with their actual sites in the budget. The idea of putting money in the budget for erosion control without the sites promotes mismanagement of the money. It does not promote accountability and transparency in the budgeting process.
- viii. Encourage the planting of crops for renewable energy including sorghum, jathropha, etc. We need to diversify the sources of energy and increase the demand for these crops leading to more jobs to satisfy the demand.
- ix. Embark on massive tree planting and afforestation with targets and locations for desert, erosion and flood control and for promotion of carbon sinks. Real investments are needed if we are to reduce desertification, stop massive flooding and erosion. In the process, we will create jobs that ensure that the trees survive through appropriate nurturing.
- x. Renewable energy should be utilised in agriculture including solar boreholes, solar lighting, drying, the development of automated solar powered agriculture machines including planters, harvesters, etc. This is cheaper in terms of fuelling in the long run and the whole life cycle costs will also be cheaper. It also has the prospect of generating more jobs in the localities where they are sited.
- xi. Take steps in collaboration with other MDAs to increase the number of households transiting from kerosene to cooking gas (LPG) to 20 per cent by 2020 and increase the number of households replacing kerosene lanterns with solar lamps by 20 per cent by 2020. Promote solar cookers. Provision of alternative domestic fuel for rural dwellers revisit the clean cook stoves, more use of cooking gas and solar cookers. This is cheaper in the long run because of the skyrocketing cost of kerosene. This will also help in reducing deforestation that is done for the purpose of getting firewood for cooking.

- xii. Promote efficient use, management and conservation of water. It is imperative to state that water is a finite public good that needs to be conserved before it becomes extra scare and this will lead to more dryness, desertification and famine.
- xiii. Provide funding for monitoring, reporting and verification of mitigation and adaptation measures. Also provide resources for data and statistics gathering and management.
- xiv. Strengthen research institutes and give them grants based on performance such that institutions that have good agricultural inventions will be given preference. This will naturally spur competition between them to come up with research findings.
- xv. Encourage the formation of cooperatives to group and organize small holders and operators as this will improve their chances of accessing credit, farm inputs and become part of the functional formal economy.

3. TRANSPARENCY AND ACCOUNTABILITY

- i. The specific annual contributions of donors and development partners should be identified and captured in the budget to ensure transparency, accountability and prevent double budgeting and duplication of efforts.
- ii. Increase the efficiency of Agriculture sector spending through greater value for money strategies. Ensure strict and efficient utilisation of the resources allocated to the sector by implementing open contracting standards as part of an open government strategy.
- iii. The Minister of Finance should prepare and publish a Budget Disbursement Schedule within 30 days of the enactment of the Appropriation Act as stipulated by Section 26 of FRA and ensure full and timely release of the capital budget of the FMARD every financial year.
- iv. The Budget Office of the Federation should resume the timely publication of Quarterly Budget Implementation reports on its website and in national dailies. The MDAs should likewise publish details of budget releases and expenditure on quarterly basis. This will help to promote transparency and accountability.
- v. The FMARD should embrace the civil society as a critical partner in achieving greater value for money in a bid to improve national Agriculture outcomes. Future preparation of the MTSS should rely on a full Sector Team including the civil

society and other relevant stakeholders. The FMARD should engage CSOs for budget monitoring and tracking expenditure of borrowed sums in the sector.

PART ONE: FOR 2018 AND THE MTSS/MTEF

1. INTRODUCTION

1.1 Background

The Medium Term Expenditure Framework (MTEF) for the period 2018 - 2020 is in the process of preparation by the Federal Ministry of Budget and National Planning (FMB&NP). When finalized, considered and endorsed by the Executive Council of the Federation (EXCoF), it will be transmitted to the National Assembly (NASS) for approval¹.

The Agriculture Medium Term Sector Strategy (MTSS) which should inform the Agriculture component of the MTEF including its focus on Climate Smart Agriculture is expected to:

- Articulate medium-term (three years) Agriculture goals and objectives against the background of the overall goals of high level national Agriculture policies, international Agriculture standards and the attainment of the Sustainable Development Goals (SDGs);
- Identify and document the key programmes and projects the government plans to embark upon to achieve the national Agriculture goals and objectives;
- Cost the identified key initiatives in a clear and transparent manner;
- Phase implementation of the identified initiatives over the medium-term;
- Define the expected outcomes of the identified initiatives in clear measurable terms; and
- Link expected outcomes to the objectives and goals.

1.2 Rationale for the Exercise

By 2015, agriculture employed 38% of the working population and generated 23.1% of the GDP. It is therefore a very important sector to food security, employment generation and economic growth and diversification². Agriculture productivity also plays a key role in the determination of the level of the Consumer Price Index. Again, importation of major food items contributes to the determination of the value of the Naira as it imports currency volatilities. Agriculture is therefore an important sector that deserves the attention of all stakeholders. Official preparation of the Agriculture Sector MTSS by the

¹ This is as provided by section 14 of the Fiscal Responsibility Act, 2007.

² See page 54 of the Economic Recovery and Growth Plan and page 13 of the Agriculture Promotion Policy 2016-2020 (The Green Alternative).

Federal Ministry of Agriculture and Rural Development (FMARD) provides CSOs working in the Agriculture Sector an opportunity to present memorandum articulating key inputs into the MTSS and 2018 federal Agriculture budget. The memorandum is focused on mainstreaming a low carbon framework for budgeting, fit and good practices, value for money, accountability for results and evidence led budgeting in the Agriculture sector whilst responding to the food and agriculture challenges and indicators affecting the majority of the population.

The effects of global warming and climate change are all around us; increased earth temperature, desertification, droughts, floods, sea level rise, etc. are all manifestations of climate change. They have impacted negatively on Agriculture and the right to food. All these are inter alia traceable to the increasing emission of carbon dioxide and other greenhouse gases (GHG) into the atmosphere. It is therefore imperative that CSO stakeholders deliberate and consolidate their inputs into a policy paper framework that will be submitted to the Federal Ministry of Agriculture and Rural Development; Ministry of Budget and National Planning, the National Assembly and other stakeholders.

By this memorandum, CSO stakeholders seek to articulate medium-term (three years) Agriculture goals and objectives for mainstreaming Climate Smart Agriculture (CSA) against the background of the overall goals of high level national Agriculture and Right to Food policies, international standards on the subject and the attainment of the Sustainable Development Goals; identify and document the key initiatives that will be embarked upon to achieve these goals and objectives. It also provides the opportunity to provide insights on how to cost the identified key initiatives in a clear and transparent manner; phase implementation of the identified initiatives in clear measurable terms; and link expected outcomes to the overall sectoral goals and objectives.

1.3 Outlining Linkages Between MTSS and Annual Budget³

Section 18 of the Fiscal Responsibility Act (FRA) stipulates that annual budgets are to be derived from the MTEF. It further provides that notwithstanding anything to the contrary contained in the FRA or any law, the MTEF shall:

- Be the basis for the preparation of the estimates of revenue and expenditure required to be prepared and laid before the National Assembly under section 81 (1) of Constitution.
- 2) The sectoral and compositional distribution of the estimates of the expenditure referred to in subsection (1) of this section shall be consistent with the Medium

³ See Health Sector MTSS 2017-2019 – A Memo from CSOs Working in the Health Sector, published by CSJ.

Term Developmental Priorities set out in the Medium Term Expenditure Framework.

CSOs therefore seek to make inputs into the Medium Term Developmental Priorities of the Federal Government in the Agriculture Sector considering that this will form the basis for the preparation of the 2018 federal Agriculture budget.

1.4 Identifying High Level National and International Policies and Standards

There are so many national and international standards, laws and policies guiding Agriculture including Climate Smart Agriculture (CSA) and the Right to Food in Nigeria. These include but are not limited to the Agriculture Promotion Policy 2016 (APP) and the recently unveiled Economic Recovery and Growth Plan, 2017-2020 (ERGP), etc. These policies stated the goals of the sector within the context of overall national goals.

The APP adopting the position of the Food and Agriculture Organisation defines CSA as sustainably increasing agricultural productivity and incomes; adapting and building resilience to climate change; and reducing and or removing GHG gas emission where possible⁴. Carbon sequestration through carbon sinks is also imperative for CSA. The ERGP adopts the APP goals but focuses on three key policy objectives namely:

- Increase agriculture GDP from N16.0trillion in 2015 to N21.0 trillion in 2020 at an average annual growth rate of 6.92%;
- Significantly reduce food imports and become a net exporter of key agriculture products, e.g., rice, tomatoes, vegetable oil, cashew nuts groundnuts, cassava, poultry, fish, livestock,
- Become self-sufficient in tomato paste (by 2017), rice (2018) and wheat by (2019/2020)

The ERGP identified the serious threat of climate change on yield as one of the constraints on agriculture. But the policy and strategies seem to be neutral or non-specific on the climate change challenge. However, to meet the above objectives, climate change must be factored into the production, storage, processing, distribution and marketing systems. Generally, the ERGP listed its low carbon initiatives to include attract financing for sustainable development projects; addressing severe land degradation and desertification; reducing gas flaring by 2 percentage points a year; installing 3,000 MW of solar systems over the next 4 years and increasing the number of households replacing kerosene lanterns with solar lamps by 20 per cent by 2020. It further states that:

"Investing in our people includes protecting the environment in which they live and work. Nigeria faces the environmental challenges of large-scale deforestation, poor waste

⁴ See page 48 of the APP.

management, pollution, urban decay, inadequate environmental education and awareness, poor coastal management and weak environmental governance. The ERGP will address some of the most pressing issues, e.g., through afforestation, tackling climate change and better environmental management to support sustainable development."

Nigeria's Policy on the Environment also has clear mandates on Agriculture and the Food Sector.

Box 1: Agriculture Mandates of the National Policy on the Environment

a) ensure that mandatory Environmental Impact Assessments is carried out for all major agricultural development projects; b) support research aimed at developing farming systems that combine optimum production with land resource protection and which are compatible with the socio-economic conditions of all peoples; c) promote farming systems based on natural adaptations across ecological zones and ensure maintenance of soil quality and capability through sound management; d) develop through research, sustainable agro-forestry techniques for the prevention and remediation of erosion and checking desertification; e) discourage the cultivation of marginal lands and encourage off farm contributions; f) prescribe and regulate appropriate land preparation and agriculture mechanization; g) encourage and support ecologically appropriate livestock and poultry production; h) promote efficient use of crop and livestock waste products; i) develop and support efficient fish production, processing, storage and marketing through promotion of improved technologies and management practices; j) encourage conservation of grazing reserves and enforce strict range resource management programmes; k) minimize agricultural product loss by promoting efficient processing techniques, improved transportation infrastructure, appropriate storage facilities and efficient marketing strategies; I) regulate the production, use, storage, transportation, marketing, sale and disposal of agricultural chemicals; m) maintain an up-to-date register of approved agro-chemicals and provide "safe use of pesticides" guides; n) encourage the production of high yield, early maturing crop varieties requiring minimum agro-chemicals input; o) monitor pesticide and agro chemical residue levels in air, soil, water, sediments, flora, fauna and human and document the environmental fate of such chemicals; p) promote farming, using manures and other soil nutrients; q) promote integrated pest management; r) promote and encourage sustainable low input farming systems; s) regulate the use of toxic and hazardous chemicals in agriculture to protect human health and the soil. t) promote the inventory development and the use of ecofriendly bio-pesticides or natural pesticides.

Source: National Policy on the Environment, 1999

Most of the provisions of the National Policy on Environment are in tandem with CSA. Other issues dealt with by the National Policy on Environment include water, air, soil, desertification, drought, afforestation, land use and soil conservation, flood and erosion management, forestry, etc.

Again, Nigeria is a member of the United Nations and signatory to the Paris Climate Change Agreement and a plethora of international standards that mandate States Parties to be more responsive to the reduction of GHG in all fields of human endeavor. Nigeria prepared its Intended Nationally Determined Contributions (INDC). The INDC identified a key mitigation measure in CSA with a potential to reduce 74 million tonnes of GHG per year in 2030⁵. The INDC in its impacts and vulnerability rating states as follows of Agriculture:

"Agriculture is one of the sectors most sensitive to climate change. Under a business-asusual scenario, agricultural productivity could decline between 10 to 25 per cent by 2080. In some parts of the north, the decline in yield in rain fed agriculture could be as much as 50 percent. This in turn would impact GDP, reducing it by as much as 4.5 percent by 2050, even though the share of agriculture in GDP will decline from 40 to just 15 percent. Furthermore, in the absence of mitigating measures, the net import of yams and other vegetables is expected to decrease in the long-term. The net import of rice, however, is expected to increase by as much as 40 percent".

The INDC has now been converted into Nationally Determined Contributions (NDCs) with clear strategies for implementation. Nigeria had earlier prepared the National Adaptation Strategy and Plan of Action for Climate Change in Nigeria (NASPA-CCN) which has detailed provisions on agriculture in the context of climate change. The policy document intends to reduce impacts of climate change vulnerability and increase the resilience of Nigerians. NASPA-CCN has thirteen sectoral strategies. NASPA-CCN intends to reduce or minimize risk by improving adaptive capacity, leveraging new opportunities and facilitating collaboration inside Nigeria and with the global community. NASPA-CCN sees climate change adaptation as an integrated component of sustainable development. It places a lot of interest on the adaptive capacity of women, children and resource-poor men. NASPA-CCN tries to increase knowledge and awareness on climate change risks and opportunities, undertake and implement risk assessment and risk reduction measures, as well as incorporate climate change into ongoing agricultural business planning. It also tries to review and enforce agricultural land use plans in industrial areas as well as encourage informal agricultural insurance schemes. NASPA-CCN seeks to provide agricultural extension services to CSOs, communities and the private sector to help establish and restore the nation's agricultural endowments.

At the regional level, Nigeria endorsed the Comprehensive African Agricultural Development Programme (CAADP), the African Union Maputo Declaration on Agriculture and Food Security 2003 and the Malabo Declaration on Accelerated

⁵ See page iv of the INDC.

Agricultural Growth and Transformation for Shared Prosperity and Improved Livelihoods⁶.

Also, the SDGs No.2 supports CSA and targets inter alia: By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that helps maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improves land and soil quality⁷.

Agriculture is the foundation of the right to food and freedom from hunger. Nigeria is a State Party to the International Covenant on Economic, Social and Cultural Rights (ICESCR). The ICESCR in article 11 states inter alia:

(2) The States Parties to the present Covenant, recognizing the fundamental right of everyone to be free from hunger, shall take individually and through international cooperation, the measures including specific programmes, which are needed to:

(a) To improve methods of production, conservation and distribution of food by making full use of technical and scientific knowledge...and by developing and reforming agrarian systems in such a way as to achieve the most efficient development and utilization of natural resources.

Satisfying the right to food will not be possible without CSA which is a reform of agrarian policies to achieve efficiency and sustainable use of natural resources. The state's duties are specifically to respect, protect and fulfill the right to food and this can only be

⁶ At the Second Ordinary Assembly of the African Union in July 2003 in Maputo, African Heads of State and Government endorsed the "Maputo Declaration on Agriculture and Food Security in Africa" (Assembly/AU/Decl. 7(II)).

Other targets include: By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round; By 2030, end all forms of malnutrition, including achieving, by 2025, the internationally agreed targets on stunting and wasting in children under 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women and older persons: By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment. Others are: By 2020, maintain the genetic diversity of seeds, cultivated plants and farmed and domesticated animals and their related wild species, including through soundly managed and diversified seed and plant banks at the national, regional and international levels, and promote access to and fair and equitable sharing of benefits arising from the utilization of genetic resources and associated traditional knowledge, as internationally agreed: Increase investment, including through enhanced international cooperation, in rural infrastructure, agricultural research and extension services, technology development and plant and livestock gene banks in order to enhance agricultural productive capacity in developing countries, in particular least developed countries, etc.

possible if the impediments for the provision of food through farming are removed; and fit and good practices which satisfy the needs of generations adopted. As part of the minimum core obligation of the state, there is a duty to provide information, disseminate knowledge of standards and practices that will guarantee viable production, processing, storage and distribution systems of food and agricultural products⁸.

1.5 Structure of the Sector

In terms of practical Agriculture, the sector is mainly a private sector driven initiative. However, Governments (federal and state) provide policies, regulation, extension services, facilities and knowledge to support the sector. The local governments are the domain of the actual farming activities. The FMARD is the lead agency with support from Ministries like the Federal Ministry of Environment (FMoE) and the Federal Ministry of Water Resources (FMoWR). The National Council on Agriculture coordinates policy activities and the Council includes membership from state commissioners of Agriculture and the aforelisted ministries. Other relevant ministries that attend the NCA include the Federal Ministries of Finance, Trade and Industry.

There are small scale subsistence farmers working along-side large scale commercial agriculture. Most of the small scale agriculture is rain-fed. The land is mainly owned by men but to a great extent cultivated by women. The Land Use Act is the major legislation which centralizes the ownership of the land in the state governor as a trustee for all residents of the state - who are now given or be deemed to have been given a right of occupancy for a plethora of uses. Agriculture used to be the mainstay of the economy in terms of generating government revenue and foreign exchange before the discovery of oil in large quantities. Recently, and with the pervading oil crisis, there have been efforts on the path of government to revive the sector with mechanization, full chain value addition and provision of financial support to farmers.

2. KEY CHALLENGES OF THE AGRICULTURE SECTOR AND LAYING OUT GOALS, OBJECTIVES AND TARGETS BASED ON HIGH LEVEL NATIONAL AND INTERNATIONAL POLICIES AND STANDARDS

2.1 Challenges of the Nigerian CSA

The APP identified constraints to CSA as follows:

• Limited awareness of climate issues, and therefore key changes required to protect agriculture.

⁸ See APP - Food as a Human Right at page 14. See further General Comment No. 12 on the Right to Adequate Food by the UN Committee on Economic, Social and Cultural Rights, (Twentieth Session), 1999.

- Poor management of land, water, soil nutrients and genetic resources.
- Inconsistency of the governance regimes, policies, legislations and financial mechanisms with the requirements for climate friendly agricultural practices.
- Inefficient and unsustainable management of agriculture and natural resources e.g. soil, water.
- Lack of awareness of soil management practices.
- Limited availability of drought resistant variety of crops.
- Lack of research into climate smart agriculture.
- Lack of cooperation and synergy among the key MDAs and other stakeholders.
- Absence of comprehensive soil map for Nigeria.
- Lack of awareness on climate change and its effects on agricultural practices.
- Lack of access and framework to alternative energy use and;
- Poor infrastructure to support climate smart agriculture.

Other challenges undergirding the poor performance of the sector include insufficient financing, weak supply chain management for inputs, limited human resource capacities and insufficient coordination, cohesion and accountability.

2.2 Sectoral Goals, Objectives, Targets and Strategies

NASPA-CCN's position, adopted in the INDC Strategies for Agriculture (Crop and Livestock) is as follows:

- Adopt improved agricultural systems for both crops and livestock (for example, diversify livestock and improve range management; increase access to drought resistant crops and livestock feeds; adopt better soil management practices; and provide early warning/meteorological forecast and related information.
- Implement strategies for improved resource management (for example, increase use of irrigation systems that use low amounts of water; increase rainwater and sustainable groundwater harvesting for use in agriculture; increase planting of native vegetation cover and promotion of re-greening efforts; and to intensify crops and livestock production in place of slash and burn).
- Focus on agricultural impacts in the savannah zones, particularly the Sahel, the areas that are likely to be most affected by the impacts of climate change

The targets of the National Agricultural Resilience Framework 2014 are relevant here:

- Strengthening the overall policy/institutional framework for improved resilience and adaptation to climate variability and change in the agricultural sector, including planning and implementation, systems for resource mobilization, and effective project monitoring and evaluation.
- Evaluation and introduction of risk transfer and risk management strategies (e.g., improved seasonal and real time weather forecasts, insurance based risk mitigation options etc.) into the agricultural sector and widespread deployment of same through communication technologies, including mobile phones.
- Improving productivity through training community and grass root farmers on land and water management strategies (e.g., irrigation farming, water harvesting, soil fertility enhancement and erosion control etc.) improved farming practices and using policy instruments such as economic incentives, regulations and communication.
- Reinforcing existing social safety nets through support systems that reduce vulnerability and improve livelihood conditions for the vulnerable, especially women and children.
- Improving farming systems research capacity within the National Agricultural Research System (NARS) to enable and support the implementation of climate friendly agriculture in Nigeria.
- Revamping extension services, including building new capacity for evidence-based assessment and management of climate risk for resilience in the agriculture sector

The policy thrust of the APP in line with CSA includes:

- Boosting public awareness through advertising of importance of climate smart agriculture.
- The management of land, water, soil and other natural resources will be improved.
- Institutional linkages and partnerships will be strengthened for ensuring climate smart agricultural governance, policies, legislations and financial mechanisms.
- Environmental Impact Assessment will be carried out on major agricultural projects.
- The use of renewable energy will be promoted with the involvement of private sector.
- Broad public and stakeholder awareness on Climate Smart Agriculture will be created.
- Government will facilitate soil map to improve land use and management practices.
- Government will increase the adoption of global best practices on climate change, including the aspects of adaptation, mitigation and carbon credit.

It is imperative to note that APP prioritization and timelines indicate that the years 2016 and 2017 will get limited money and human resources allocated to CSA. Essentially,

CSA will be on the maintenance mode during the period whilst in 2018 to 2020, CSA will attract 100% of budgeted investment, human resources and full political support⁹.

Implementing the foregoing will not be possible without adequate financial resources. The Maputo Declaration commitment to the allocation of at least 10 percent of national budgetary resources to agriculture and rural development policy implementation comes in handy as a target to guarantee the lofty goals¹⁰. The Comprehensive Africa Agricultural Development Programme (CAADP) reaffirms the Maputo Declaration's position on funding and further projects a 6% growth per year on agricultural GDP whilst recognizing the sector as one that can facilitate the reduction of inequality. It seeks to focus particular attention to small-scale farmers, especially women farmers. Also, CAADP seeks the practice of environmentally sound production methods and a culture of sustainable management of the natural resource base (including biological resources for food and agriculture) to avoid their degradation.

In Malabo, 2014, the AU Heads of Government adopted a Declaration inter alia for (a) recommitment to the principles and values of the CAADP Process; (b) commitment to enhancing investment finance in agriculture and particularly to uphold our earlier commitment to allocate at least 10% of public expenditure to agriculture, and to ensure its efficiency and effectiveness; (c) commitment to ending hunger in Africa by 2025; (d) commitment to halving poverty by the year 2025, through inclusive agricultural growth and transformation; ... (f) commitment to enhancing resilience of livelihoods and production systems to climate variability and other related risks.

In view of the foregoing, the overall purpose of this exercise is to mainstream a low carbon framework for budgeting; fit and good practices, value for money, accountability for results and evidence led budgeting framework in the agriculture sector whilst responding to the food and agriculture challenges/indicators affecting the majority of the population.

3. REVIEW OF EXISTING BUDGET COMMITMENTS (2013-2017): KEY ISSUES

3.1: Low Budgetary Allocation

A review of the budgetary allocation to the FMARD between 2013 and 2017 will reveal the commitment of FGN to the sector. If FGN had implemented the 10% Maputo Declaration benchmark, the national agriculture and food indices would have probably been better. Table 1 shows the state of allocations.

⁹ At page 55 of the APP.

¹⁰ Also, the APP (at page 42) seeks to engage with the legislature to increase public sector funding to the minimum recommended10% of the national budget.

Year	Total Budget (N' Billion/Trillion) (a)	Agriculture Allocation (N' Billion) (b)	As % of Total Budget (c) b/a*100	As 10% of Total (N' Billion) (d) (a/10)	Variance from 10% Benchmark (N' Billion) (d-b)		
2013	4,987,220,425,601	83,762,937,710	1.68	498,722,042,560.1	414,959,104,850.1		
2014	4,695,190,000,000	66,644,675,939	1.41	469,519,000,000	402,874,324,061		
2015	4,493,363,957,158	40,659,020,717	0.90	449,336,395,716	408,677,374,999		
2016	6,060,677,358,227	75,806,548,275	1.25	606,067,735,823	530,261,187,548		
2017	7,441,175,486,758	135,545,345,06	1.82	744,117,548,675.8	608,572,203,614.80		
		1		0			
Funding	Funding Gap arising from the variance: N2.37triilion						



Source: Budget Office of the Federation

From the Table 1 above, agriculture enjoyed a total allocation of N402,418,527,701 with an annual average sum of N80,483,705,540 constituting an annual average of 1.41% of the total approved federal budgets. The variance between Maputo Declaration and the actual allocations is the sum of N2.37trillion. Juxtaposing this against the APP, Maputo and CAADP commitments shows a huge gap between sector benchmarks and actual appropriation. The Agriculture vote is not even up to 50% of the Maputo commitment.

Table 2 shows the allocation to the Agriculture sector at the federal level for 2013 -2017 and its real value in Naira and United States Dollars.

Year	Agriculture Budget	National Budget	Percentage to Agriculture	Exchange Rate	USD Value of Agriculture Vote
2017	135,545,345,061	7,441,175,486,758	1.82	@1USD=N305	444,410,967.41
2016	75,806,548,274	6,060,677,358,227	1.25	@1USD=N197	384,804,813.57
2015	40,659,020,717	4,493,363,957,158	0.90	@1USD=N190	213,994,845.88
2014	66,644,675,939	4,695,190,000,000	1.42	@1USD=N160	416,529,224.62
2013	83,762,937,710	4,987,220,425,601	1.68	@1USD=N160	523,518,360.69

Table 2: Agriculture Vote as a Percent of Overall Budget 2013-2017 and its Real Value

Source: Budget Office of the Federation and Authors Calculations

From Table 2, it is clear that the Agriculture vote of 2013 has been the highest over the four years. It declined in 2014 and 2015 and only started the upward swing in 2016. In terms of its real value in USD terms which takes cognizance of the inflation rate, cost of living and other macroeconomic variables, the 2013 allocation to Agriculture is also the highest.

3.2 Capital versus Recurrent Funding of the Health Sector

The allocation of recurrent and capital funding in the Agriculture Sector over the years has been undulating. Capital expenditure came as low as 21.62% in 2015. Table 3 shows the picture.

YEAR	OVERALL BUDGET	ALLOCATION TO AGRICULTURE	RECURRENT VOTE	RECU RREN T VOTE (%)	CAPITAL VOTE	CAPIT AL VOTE (%)		
2017	7,441,175,486,758	135,545,345,061	31,752,144,051	23.43	103,793,201,010	76.57		
2016	6,060,677,358,227	75,806,548,274	29,632,584,416	39.53	46,173,963,859	60.47		
2015	4,493,363,957,158	40,659,020,717	31,869,020,717	78.38	8,790,000,000	21.62		
2014	4,695,190,000,000	66,644,675,939	31,493,503,356	47.25	35,551,172,583	52.75		
C	Source: Budget Office of the Federation							

Table 3: Capital and Recurrent Votes Expressed in Percentages: 2013-2017

Source: Budget Office of the Federation

The upper limit recorded in 2017 is preferred since massive investments are required for CSA. But a balance must be struck for expenditure in such areas as extension and meteorological services which may not be strictly graded as capital expenditure.

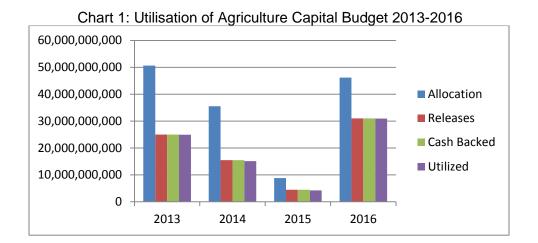
3.3 Late and Partial Release of Appropriated Funds

Due to the persisting late passage and assent to the Appropriation Act, Agriculture budgets are usually released late. Budget Implementation Reports of the Budget Office of the Federation showed partial release of allocated funds; partial cash-backing of released funds while utilization has been low due to late disbursements and poor absorptive capacity. This has to improve in the medium term and beyond.

Year	Annual Allocation (₦)	Total Amount Released (N)	Total Cash backed (N)	Total Utilized (₦)	As% of Annual Appropriation
2013	50,647,871,428	24,992,961,700	24,992,961,700	24,909,327,595	49.18
2014	35,551,172,583	15,463,228,948	15,463,228,948	15,121,799,415	42.54
2015	8,790,000,000	4,452,715,215	4,452,715,215	4,248,345,651	48.33
2016	46,173,963,859	30,989,098,425	30,989,098,425	30,971,848,506	67.08

Despite the low budgetary provisions for the sector, for the years 2013, 2014, 2015 and 2016, the percentage of appropriated Agriculture expenditure utilized has been 49.18%, 42.54%, 48.33% and 67.08% respectively. Thus, the only good performance has been in the year 2016. Cumulatively, over the years, the average percentage performance has been 51.78%. This does not show sufficient commitment to funding the capital

component of the Agriculture budget. Chart 1 further illustrates the utilization of capital allocation to Agriculture for the years 2013-2016¹¹.



4. KEY AGRICULTURE SECTOR ACHIEVEMENTS IN THE PAST DECADE

At the policy level:

- Design and implementation of the Agriculture Transformation Agenda (ATA).
- Design and ongoing implementation of the Agriculture Promotion Policy; both the ATA and APP propose a full value chain approach.
- Mainstreaming of Agriculture in the INDC and NDC.
- Creation of a Federal Department of Agriculture Extension.

At the financing level:

• Establishment of special funds and windows for financing agriculture through the Bank of Industry, Anchor Borrowers Programme, NIRSAL credit guarantees, etc.

At the implementation level:

- Increased production of crops like cassava, rice, cocoa and yam. Increased local processing of rice; start of the export of yams, etc.
- Promotion (though very limited) of organic farming

5. MDAS AGRICULTURE PROJECTS/ACTIVITIES THAT SHOULD BE SUSTAINED

The below listed provisions are projects of the FMARD that facilitate CSA and should be sustained. The reasons for this position are stated immediately after Table 5.

¹¹ Source: Budget Implementation Reports - Budget Office of the Federation.

Table 5: Some Climate-Sensitive Budget Line Items							
Year	Project	Amount N					
2017	Land and climate management	3,657,938,293					
2017	Erosion Control Project in Kafur Iga, Katsina State	72,140,794					
2017	Provision of organic fertilizer in Maiduguri Federal	20,000,000					
	Constituency, Borno State						
2017	Construction of solar street light in Birnin Kudu/Buji,	30,000,000					
	Federal Constituency, Jigawa State						
2017	Provision of organic fertilizer in Badagry Federal	20,000,000					
	Constituency, Lagos State						
2017	Supply of organic fertilizer to Ayedire/Iwo/Ola-	20,000,000					
	Oluwa LGAs, Osun State						
2017	Procurement of organic fertilizer in Ekiti North	20,000,000					
	Federal Constituency II (Ido-Osi/Moba/Ilejemeje)						
2017	Construction of drain channels for erosion control in	122,000,000					
	town in Ideato LGA, Imo State						
2017	Supply of organic fertilizer in Zaria Federal	100,000,000					
	Constituency, Kaduna State						
2017	Supply and installation of solar streetlight at Warri	150,000,000					
	Federal Constituency, Delta State						
2017	Extension services to farmers	7,000,000					
2017	Development of sorghum for renewable energy	950,000					
2017 Microclimatic effects of sowing date, variety and		135,200					
	irrigation regime on maize performance in a						
	changing climate at Samaru, Nigeria						
2016	Organic fertilizer	219,170,984					
2015	Organic fertilizer	98,045,600					
2015	Organic fertilizer	7,680,000					
2015	Agricultural resilience for climate change	28,400,000					
2015	Climate adaptation	7,680,000					
2014	Organic fertilizer	455,612,500					
2014	Organic fertilizer	40,000,000					
2014	Agricultural resilience for climate change	140,000,000					
2014	Climate adaptation	40,000,000					

Table 5: Some Climate-Sensitive Budget Line Items

Erosion control is necessary for the prevention of massive land degradation which leads to loss of rural and urban livelihoods and waste of natural resources. Drainage channels help to channel water to areas where it constitutes the least nuisance to properties, plant and animal life. Provisions for agricultural resilience improve the national capacity for food security and increased production with its impact on poverty reduction, job creation and economic growth. The National Agricultural Resilience Framework (NARF) leads the way in formulating policies to boost agricultural resilience for climate change.

Extension services are needed to disseminate new information, knowledge and fit and good practices to farmers. The products of research institutes need to be moved to the

institutions and persons that need them most for improved productivity, mitigation and adaptation. Development of plants for bio/renewable energy broadens the energy mix and creates opportunities for new jobs and energy sustainability.

Provision of organic fertilizer instead of inorganic fertilisers is a step in the right direction considering that organic fertilizers do not contribute to emission of GHGs the way inorganic fertilizers do. Organic fertilizers are not necessarily responsible for land use change. Inorganic fertilizers on the other hand are a major promoter of land use change which facilitates climate change. While we admit that Nigeria cannot do away with inorganic fertilizers overnight, we strongly recommend a paradigm shift away from inorganic fertilizers. This is because the nitrogen in these inorganic fertilizers reacts with air and water to produce nitrous oxide which is one of the GHGs that the UNFCCC seeks to reduce. These inorganic fertilizers also increase the acidity of soils and destroy soil texture and structure over time. The government is encouraged to increase Nigeria's capacity to locally produce organic fertilizers and in the process, reduce dependence on inorganic fertilizers.

Expenditure for climate adaptation could be in the form of visible projects to aid adaptation, massive literacy/education on climate change and reduction of climate change induced losses, etc. As shown in the Agricultural Sector Strategies outlined in NASPA-CCN, climate adaptation is extensive and capital-intensive. Beyond scaling up the appropriation, judicious utilization of the funds is imperative. Solar lighting is also good for GHGs reduction and eventually reduces the cost of energy. Within the period reported above, there have been provisions for tree planting, studies on various aspects of climate change, promotion of afforestation, distribution of energy efficient cooking stoves, etc. All these need to be continued but focused and systematically implemented to yield desired results.

6. MDAS PROJECTS/PROGRAMMES PERFORMING POORLY

- Extension Services
- Measures to reduce post-harvest losses
- Grazing systems and dedicated pastures
- Afforestation and Agro forestry
- Reduction of desertification
- Soil mapping, management and improvement.
- Improving crop and animal yield¹²
- Monitoring and evaluation of sectoral performance
- Ineffective coordination between FMARD, FMoWR and FMoE

¹² In cereal yield per hectare, Egypt leads in Africa with 7,162.30 kg while Nigeria lags with 1,593.70kg; in rice yield, Egypt again leads with 9 MT/HA as against Nigeria's 2 MT/HA. In cotton, South Africa leads with 1,089 kg per hectare while Nigeria lags with 227 kg per hectare.

7. OTHER AGRICULTURE SECTOR CHALLENGES

7.1 No Link between Research and Agriculture Outputs

Nigeria has 15 Commodity-based Agricultural Research Institutes, 11 Federal Colleges of Agriculture, a Specialized National Agricultural Extension Institute, over 50 Faculties of Agriculture in regular Federal Universities and 3 Specialised Universities of Agriculture. The research findings of these institutions, if any, has not brought increased yield on the agricultural farms. There is therefore need to strengthen research institutes and give them grants based on performance such that institutions that have good agricultural inventions will be given preference. This will naturally spur competition between them to come up with research findings¹³.

Again, the links between the products and findings of research institutes and the sector is very thin. The research appears not to be demand driven or driven by the needs of real farmers and processors. Even where findings have been made, getting them across through extension services to the farmers and persons who need them seems not to be a priority. This link needs to be strengthened if Nigeria is to derive value for money from the plethora of Agriculture Research Institutes funded at the public expense.

7.2 New Capital Projects

Resources are so thinly spread in the sector across so many uncompleted projects that were due for completion so many years ago. Many existing projects (including earth and other agriculture purpose dams) have remained uncompleted. Other projects are begging for maintenance, equipment and overheads to make them functional. This has not guaranteed value for money and improvement of Agriculture and food security. A moratorium on brand new capital projects, not related to existing projects has become necessary unless the new project is of utmost priority. Otherwise, money should be spent on completing, equipping and making functional the existing projects.

7.3 Poor Monitoring, Reporting and Verification

The FMARD hardly provides resources for monitoring, reporting and verification of the sectors mitigation and adaptation measures. This has led to data gaps which frustrates evidence led planning for CSA. Poor MRV also denies Nigeria of the opportunity of participation in the emission trading schemes. It is therefore imperative for funding to be made available for this purpose from the 2018 budget onwards, either for the FMARD alone or jointly with the national ministerial focal point in the FMOE.

¹³ Memorandum on the Agriculture Sector MTSS 2017-2019, Centre for Social Justice and National Association of Nigerian Traders, 2017.

7.4 Sequestration of Capital Votes at the Headquarters

Table 6 below shows the capital allocations to Agriculture and the part of it that is retained by the headquarters of the Ministry.

YEAR	CAPITAL	CAPITAL	PERCENTAGE		
	ALLOCATION	ALLOCATION TO	ТО		
	ТО	HEADQUATERS	HEADQUATERS		
	AGRICULTURE				
2017	103,793,201,010	75,072,908,439.20	72.3		
2016	46,173,963,859	33,668,070,268	72.9		
2015	8,790,000,000	5,510,739,968	62.7		
2014	35,551,172,583	26,757,471,005	75.3		
2013	50,674,871,428	39,751,397,738	78.4		

Table 6: Capital Allocation to Headquarters as a Percentage of Capital Allocation to the FMARD

Source: Budget Office of the Federation

In the years 2013, 2014, 2015, 2016 and 2017, the percentage sequestrated at the headquarters has been 78.4%, 75.3%, 62.7%, 72.9% and 72.3% respectively. This concentration of votes at the head office is uncalled for. It is simply an allocation of funds to where it is not needed, instead of allocation to the units that need them. This is merely a struggle by the head office to be in charge of procurement awards for purposes that are not clearly defined. The FMARD should critically review the capital votes at the headquarters and retain only those necessary for headquarters operations. The remaining should be reallocated to agencies and parastatals that show credible evidence of being the ones in need of procuring the goods and services for which the budget has made provisions.

PART TWO: FOR ACTION IN THE MEDIUM TERM

Part Two is dedicated to action needed to improve budgeting for CSA and the right to food after the passage of the 2018 budget vis - in the medium term, before the end of the tenure of the current Executive and National Assembly. Action (in terms of bills, motions and oversight activities) is expected from the legislature and a multiplicity of action from the executive and other stakeholders. Other key actions are expected from the FMARD. However, the provisions should start from the 2018 budget of the FMARD.

8.1 Review the Special Windows for Agriculture Financing

The special windows for funding agriculture should be reviewed. While admitting that improvements have been recorded, it is imperative to strengthen the windows so that they can reach a larger segment of poor and rural farmers. A larger capitalization is

required for the special windows including the Anchor Borrowers Programme and NIRSAL and the Development Bank (the Bank of Agriculture).

8.2 Issuance of Green Bonds

Projects that will benefit from the issuance of Nigerian Green Bonds should fit into the NDC targets of 2% per year energy efficiency, work towards off grid solar PV, work towards ending gas flaring, work towards CSA and reforestation. Any project that does not fit into these criteria should not be funded by the Green Bond. Also, the reporting of the project implementation must show energy savings, GHG reductions, renewable energy production, etc. Clearly, the Green Bond provides good opportunity for CSA mainstreaming.

8.3 Tapping into Climate Financing Mechanisms

The FMARD should consider tapping into international climate financing mechanisms. Capacity building may be imperative for building the critical skills needed to access these funds. The Financing Mechanisms include the Global Environment Facility which is an independent international financial entity established to help defray the costs of making projects environmentally friendly and to tackle the most pressing global environmental issues. Established on the eve of the Rio's Earth Summit in 1992, the GEF provides grants for projects related to biodiversity, climate change, international waters, land degradation, the ozone layer, and persistent organic pollutants. The Special Climate Change Fund was established under the 2001 UNFCCC to finance projects relating to adaptation, technology transfer and capacity building, energy, transport, industry, agriculture, forestry and waste management; and economic diversification: and the Adaptation Fund which finances projects and programmes that help vulnerable communities in developing countries adapt to climate change. Others are the Green Climate Fund which was created by the UNFCCC with the aim of mobilizing investments in low-emission and climate-resilient projects and programmes in developing countries and the International Climate Fund that focuses on climate change mitigation, adaptation and biodiversity projects¹⁴.

8.4 The Need for Cooperatives

Considering the need for collaterals and formalization of processes in access to credit, rural small scale farmers need to be organized into cooperatives and registered with the appropriate legal authorities. This will facilitate their processing of loans, access to inputs and as a fulcrum for getting CSA extension services. Cooperatives of small scale processors, storage providers and other operatives on the value chain can also be formed for ease of access to financial and technical support for CSA. Land reform is

¹⁴ See *Financing Options for Climate Change Interventions*, Centre for Social Justice, 2016.

also imperative for rural lands to become credit worthy as collaterals for accessing loans.

8.5 Full Implementation of the APP

The APP is a beautiful document and policy position which if faithfully implemented would increase productivity, protect the environment and intensify CSA. It is therefore imperative that its implementation is not subverted by the political process or lack of political will. The full value chain approach adopted in the APP is a minimum requirement for jobs, economic growth and human development. Increased crop and animal yield should be processed, preserved and stored with large local value addition and some parts of it exported to earn foreign exchange. In this way, the economy will be diversified and more resources will be available to the public treasury. Current efforts to export cocoa, yam, in their raw unprocessed form should be stepping stone towards value addition. Also, the full implementation of the APP will involve a strong collaboration between federal, state and local governments especially in the area of extension services. Considering the virtual concurrent nature of the mandates of federal and state governments in Agriculture, collaboration is key to any expected improvements in CSA. Collaboration between MDAs will also be imperative. For instance, the Nigerian Meteorological Agency (NIMET) and weather stations nationwide will need to give farmers sensitive information through the mass media including radio and mobile phones on weather and climate issues that affect agriculture.

8.6 Reduction of Post-Harvest Losses

Inadequate storage and processing facilities means that huge amounts of the agricultural produce harvested will be lost. Investing in storage facilities means that there will be an increase in productivity and sustainability in supply. Losing harvested crops due to poor storage facilities means that no utility was provided by the crops despite all the GHGs emitted in the process of production. If the lost utility will have to be replaced, more GHGs will have to be emitted through another agricultural production cycle. Consequently, improving agricultural storage facilities will not just make more produce available but will also reduce the GHGs that would have been emitted. However, the major challenge here will be the huge capital cost of storage facilities that will be located in the farm as well as the cost of transportation infrastructure that will be needed. The challenge of financing these facilities and infrastructure is massive. Public Private Partnerships and Public Public Partnerships should be used for reduction of post-harvest losses. This will include developing cold hubs for fruits, vegetables and tubers and small scale processing plants.

8.7 Invest In Agroforestry

Practicing agroforestry means that trees will be included in agricultural and farming systems. Trees provide carbon sinks that go a long way to reduce the carbon in the

atmosphere. Tree planting is a very potent strategy to actualize low-carbon development. Tree planting improves productivity as it helps to improve water retention in the soil. Including tree planting in agricultural systems provides an opportunity for crop diversification which will improve the income of the farmer. The trees can also be perennial trees which have economic value. Furthermore, the trees which have been included in agricultural systems will provide shade for farm animals during hot weather. However, the issue of capital intensive nature of agroforestry must be addressed. Socio-cultural change on farming techniques as well as knowledge transfer issues must also be taken seriously.

8.8 Provision of Alternative Domestic Fuel for Poor Households

Burning of wood to generate charcoal depletes biomass and carbon sinks as well as increase greenhouse gas emission. Sadly, this is a normal routine in rural areas and in many poor homes. Nigeria's forest cover is being depleted at an alarming rate that is one of the highest in the world. The poor cannot stop patronizing firewood except an alternative is provided to them. The government should consider the popularization and provision of clean cook stoves for this category of households through direct funding and PPPs.

8.9 Using Resistant and Genetically Improved Animals and Crops

Heat and extreme weather conditions have a very negative impact on crop and animal yield. Pest and diseases also greatly reduces agricultural yield. The effect of this is the reduced crops, meat, milk, etc. which will be provided despite the GHGs that have been emitted during the agricultural production process. Consequently, improved crops and animal varieties should be used for agricultural production. These improved varieties can withstand extreme temperatures and other harsh environmental conditions. Consequently, their yield will be more when compared to the less resistant crops and animal varieties. This means that the associated emission of GHGs needed to produce them will be reduced.

8.10 Creating Dedicated Pastures for Grazing

The nomadic pastoral system of herd rearing that is prevalent in Nigeria is counterproductive to the yield of the animals. These animals walk very long distances under very harsh environmental conditions in search of food and water. The animals usually do not grow as fat as they should and their milk and meat production output is highly impaired. So much methane will be emitted before the animals become big enough for consumption. However, if these animals are confined to high quality and improved dedicated pasture, associated methane emission will be reduced. Land is under the management of states under the Land Use Act. FGN through the FMARD only needs to collaborate with states, encourage through extension services and if possible, give matching grants to ensure that the practice takes off.

8.11 Soil and Nutrient Management

Nitrogen is a very essential nutrient for the growth of crops but too much nitrogen in the soil has side effects. When nitrogen in the soil is too much, some of it will be unabsorbed by plants and will react with air and water to produce nitrous oxide which is a GHG. Fertilizer application is supposed to take note of the amount of nitrogen and other nutrients already present in the soil. The idea of applying the same NPK fertilizer all over the country is unacceptable. Fortunately, the FMARD has done a soil map for Nigeria. The information contained in this soil map is very essential to the reduction of GHG emission. However, Nigerians are not aware of the fact that there is a soil map to farmers who are supposed to be the ultimate beneficiaries of the information. Also, fertilizer distribution by the government should begin to take note of the content of the soil map for a particular area.

8.12 The Continuum: Policy, Plan, Budget Cycle

Previous and current experience in the implementation of national plans reveals a lot of disarticulations. From Vision 20:2020, National Economic Empowerment and Development Strategy, Seven Point Agenda, Transformation Agenda to the current Economic Recovery and Growth Plan; projections were more than appropriations; appropriations more than releases; cash backed sums are less than releases and actual expenditures are less than cash backed sums. Expenditures are therefore far less than projections thereby making the planning exercise an exercise in futility. It is recommended that Agriculture budgets should be backed by a clear Medium Term Sector Strategy which is linked to high level national and international standards; fully costed and progressively allocates more resources to Agriculture based on increased availability of resources. There should be an inseparable link between policy, planning, budgeting, performance, monitoring and evaluation continuum. This continuum should be reflected in the Agriculture sector specific budget template to be devised by collaboration between the executive and legislature. The legislature should insist on the establishment of the link between policies and appropriation during the consideration of the budget. Clarity of the budget template will dictate that projects are clearly and properly described in the budget and repetition of budget heads and items should be avoided.

8.13 Formation of Sector Teams for Future Budget Planning

The executive is enjoined to collaborate with the stakeholders in civil society, farmers, cooperatives, professional associations, organized labour, the academia, etc. to ensure that the preparation of Agriculture Medium Term Sector Strategies is done by a team that represents all stakeholders including the MDA and its parastatals. This will

guarantee comprehensiveness of future budgets and the fact the budget votes will target programme results and goals of the sector.

8.14 Adopt Best Practices in Public Procurement

Good and fit procurement practices should be adopted by FMARD; with a standard price database to remove price differentials for the same projects, programmes and activities and to enhance value for money in Agriculture operations. Adoption of open procurement and contracting should be encouraged through legislative oversight.

8.15 Renewable Energy and Agriculture Establishment Energy Access

The availability of energy in rural farm settlements is usually one of the key challenges militating against storage and preservation of farm products. It is imperative for agriculture to begin the transition to renewable energy and energy efficiency. It is admitted that the initial sunk in cost of renewables is high. But a phased transition over the medium term (defined as three to seven years) to renewable energy and energy efficient lighting and other equipment is imperative. In the long term, this will reduce the cost of providing electricity and make same accessible at a sustainable cost. The financing windows can work on this theme for groups of farmers organized in cooperatives.

9. SUMMARY OF POLICY RECOMMENDATIONS

The Memorandum Makes the Following Policy Recommendations:

9.1 FUNDING

- viii. Allocate 10% of the total annual national budget to the Agriculture sector in compliance with the Maputo Declaration of 2003. Where not possible, start with a minimum of 5% (being 50% of the Maputo Declaration) allocation in 2018 and progressively increase by 1% until the 10% is attained by 2023.
- ix. The bulk of the new resources should go to capital expenditure on CSA to enhance access to extension services, inputs and strengthen the entire value chain. Not less than 80% of the overall expenditure should go capital expenditure in 2018.
- x. Review and strengthen the special windows for financing the sector (Development Bank, NIRSAL, Anchor Borrowers Programme, etc.) through increase of available funding and ensuring that more farmers, processors and operatives along the entire value chain are reached.

- xi. FMARD to ensure that Agriculture produces bankable projects to be funded under the FGN Green Bonds issuance scheme.
- xii. Build capacity in the FMARD and tap into international Climate Financing Mechanisms to raise more funds for CSA.
- xiii. Stop the sequestration of a huge part of capital funds in the headquarters of the Ministry and send them to agencies and parastatals that need them. Procurement of goods and services is best done at the level of the agency or institution that needs them.
- xiv. Consider a moratorium on brand new capital projects not associated or linked with existing ones unless the project is of utmost priority. This will avoid the thin spread of available resources which produces no results. Money should be spent on completing, equipping and making functional the existing projects.

9.2 OPERATIONAL ISSUES

- xvi. Embark on soil and nutrient management, especially through the dissemination of information on the concluded soil map by the FMARD including the proper use and application of fertilisers.
- xvii. Dedicated extension services should be used to disseminate research knowledge, meteorological information, agro forestry practices, etc. to farmers and other value chain operators. This will involve collaboration between federal, state and local governments and inter agency collaboration.
- xviii. Creation of dedicated pastures and promotion of ranching through collaboration with states; set up demonstration ranches and disseminate knowledge.
- xix. Use resistant and genetically improved animals and crops to increase yield and production of crops, meat, milk and other related products.
- xx. Increase fertilizer use per hectare through the promotion of organic fertilizers. Also, promote organic agriculture. The need for sustainability in our farming practices dictates that we invest more in producing organic fertitlisers and farm inputs. Beyond making the soils less acidic over the medium to long term, the process of making these fertilizers will create jobs, reduce the waste that has become a challenge to city managers as well as convert same to wealth in a winwin scenario for all.

- xxi. Reduction of post-harvest losses through Public Private Partnerships and Public Public Partnerships; develop cold hubs for fruits, vegetables and tubers and provide small scale processing plants. Incentivize the local fabrication and production of these processing plants.
- xxii. Erosion and flood control projects should be stated with their actual sites in the budget. The idea of putting money in the budget for erosion control without the sites promotes mismanagement of the money. It does not promote accountability and transparency in the budgeting process.
- xxiii. Encourage the planting of crops for renewable energy including sorghum, jathropha, etc. We need to diversify the sources of energy and increase the demand for these crops leading to more jobs to satisfy the demand.
- xxiv. Embark on massive tree planting and afforestation with targets and locations for desert, erosion and flood control and for promotion of carbon sinks. Real investments are needed if we are to reduce desertification, stop massive flooding and erosion. In the process, we will create jobs that ensure that the trees survive through appropriate nurturing.
- xxv. Renewable energy should be utilised in agriculture including solar boreholes, solar lighting, drying, the development of automated solar powered agriculture machines including planters, harvesters, etc. This is cheaper in terms of fuelling in the long run and the whole life cycle costs will also be cheaper. It also has the prospect of generating more jobs in the localities where they are sited.
- xxvi. Take steps in collaboration with other MDAs to increase the number of households transiting from kerosene to cooking gas (LPG) to 20 per cent by 2020 and increase the number of households replacing kerosene lanterns with solar lamps by 20 per cent by 2020. Promote solar cookers. Provision of alternative domestic fuel for rural dwellers - revisit the clean cook stoves, more use of cooking gas and solar cookers. This is cheaper in the long run because of the skyrocketing cost of kerosene. This will also help in reducing deforestation that is done for the purpose of getting firewood for cooking.
- xxvii. Promote efficient use, management and conservation of water. It is imperative to state that water is a finite public good that needs to be conserved before it becomes extra scare and this will lead to more dryness, desertification and famine.

- xxviii. Provide funding for monitoring, reporting and verification of mitigation and adaptation measures and data and statistics gathering and management.
- xxix. Strengthen research institutes and give them grants based on performance such that institutions that have good agricultural inventions will be given preference. This will naturally spur competition between them to come up with research findings.
- xxx. Encourage the formation of cooperatives to group and organize small holders and operators as this will improve their chances of accessing credit, farm inputs and become part of the functional formal economy.

9.3 TRANSPARENCY AND ACCOUNTABILITY

- vi. The specific annual contributions of donors and development partners should be identified and captured in the budget to ensure transparency, accountability and prevent double budgeting and duplication of efforts.
- vii. Increase the efficiency of Agriculture sector spending through greater value for money strategies. Ensure strict and efficient utilisation of the resources allocated to the sector by implementing open contracting standards as part of an open government strategy.
- viii. The Minister of Finance should prepare and publish a Disbursement Schedule within 30 days of the enactment of the Appropriation Act as stipulated in section 26 of FRA and ensure full and timely release of the capital budget of the FMARD every financial year.
- ix. The Budget Office of the Federation should resume the timely publication of Quarterly Budget Implementation reports on its website and in national dailies. The FMARD should likewise publish details of budget releases and expenditure on quarterly basis. This will help to promote transparency and accountability.
- x. The FMARD should embrace the civil society as a critical partner in achieving greater value for money in a bid to improve national Agriculture outcomes. Future preparation of the MTSS should rely on a full Sector Team including the civil society and other relevant stakeholders. The FMARD should engage CSOs for budget monitoring and tracking expenditure of borrowed sums in the sector.

THIS MEMORANDUM WAS ADOPTED BY THE FOLLOWING ORGANISATIONS

- 1. Centre for Social Justice (CSJ)
- 2. Environmental Rights Action
- 3. African Green Movement
- 4. National Association of Nigerian Traders
- 5. Women Environmental Programme
- 6. Foundation Against Desert Encroachment
- 7. Foundation for Human Development
- 8. ACERDEN
- 9. Good Governance Team
- 10. Citizens Trust Advocacy Development Centre
- 11. Global Initiative for Leadership and Good Governance
- 12. Peoples Empowerment Forum
- 13. Nigerian Conservation Foundation
- 14. African Network for Environmental and Economic Justice
- 15. Campaign for Good Environment
- 16. RRDC
- 17. Foundation for Environmental Research and Development
- 18. Centre for Research, Advocacy, Women and Youth Development
- 19. Green Transact
- 20. Advocacy for Change Initiative
- 21. Society for Sustainable Development in Africa
- 22. ANWAI
- 23. LENF
- 24. Development Association for Renewable Energies
- 25. Global Rights
- 26. Lexville Foundation
- 27. Basic Rights Watch
- 28. Climate Transformation and Energy Remediation Society
- 29. CLAIN Initiative
- 30. Life Impact Centre
- 31. Community Centre for Development
- 32. KIF
- 33. National Unity Movement
- 34. Association for the Reduction of Carbon Emission
- 35. Michael Adedotun Oke Foundation