

NATIONAL FERTILIZER QUALITY CONTROL BILL FACTBOOK











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ABBREVIATIONS

AFEX - Agricultural Foreign Exchange

AU - African Union

FAOSTER - Food and Agriculture Organization Statistics
FEPSAN - Fertilizers Producers and Suppliers of Nigeria

FSS 2020 - Financial System Strategy 2020

GDP - Gross Domestic Product

ha - Hectare kg - Kilogram

NAERLS - National Agricultural Extension Research Liaison Services
NASSBER - National Assembly Business Environment Round Table

NASC - National Seed Council National

NBS - Bureau of Statistics

NESG - Nigerian Economic Summit Group

NIRSAL - Nigeria Incentive-Based Risk Sharing for Agricultural Lending

NISS - National Institute of Soil Science
SAM - Severe Acute Malnutrition
SDGs - Sustainable Development Goals

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INTRODUCTION

The Alliance for a Green Revolution in Africa (AGRA), www.agra.org is a not-for-profit organization working with African governments, other donors, NGOs, the private sector and African farmers to significantly and sustainably improve the productivity and incomes of resource poor smallholder farmers in Africa. AGRA aims to ensure that smallholder farmers have what they need to succeed: good seeds and healthy soils; access to markets, information, financing, storage and transport; and policies that provide them with comprehensive support. Through developing Africa's high-potential breadbasket areas, while also boosting farm productivity across more challenging environments, AGRA works to transform smallholder agriculture into a highly productive, efficient, sustainable and competitive system, while protecting the environment.

AGRA's mission is to catalyze an agricultural transformation in Africa through innovationdriven, sustainable, productivity increases and access to finance that improve the livelihoods of smallholder farmers. AGRA's overall vision of success is centered on two headline goals to achieve by 2020 through its efforts to catalyze, convene, and align with an alliance of partners and grantees. One of the goals is todouble the incomes of at least 30 million farm households through productivity improvements and access to markets and finance.

The Nigerian Economic Summit Group (NESG) is a private sector led think-tank organization that promotes sustainable growth and development in the Nigerian economy. It is a not-for profit/non partisan organization with a mandate to promote and champion the reform of the Nigerian economy into an open, private sector-led economy that is globally competitive on a sustainable basis. Over the years, it has emerged as the leading platform for public-private dialogue in Nigeria.

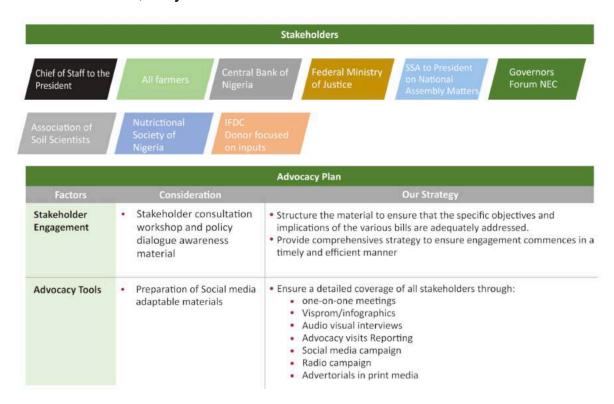
The NESG functions within Public-Private Dialogue Institutional Arrangements referred to as "Policy Commissions". These Policy Commissions are structured to drive the mission and vision of the

NESG, define and implement thematic focused policy reform agenda, implement and fast track the recommendations of the annual Nigerian Economic Summit (NES), which is the NESG's flagship advocacy and communication program.

There are currently eleven (11) Policy Commissions and over forty (40) Working Groups committed to driving change within their dedicated thematic areas. One of such Policy Commissions is the Agriculture & Food Security (with focus areas being Input & Production, Processing & Storage, Logistics, Access to Finance and Market Access) which adopts avalue chain approach to solve industry issues.

In Nigeria there are millions of smallholder households/farmers and indigenous communities working to improve their livelihoods in an environment characterized by dwindling government support and increased competition between producers, processing companies and retailers within agricultural markets. These competition between players within the same value chains leads to concentration of powers in parts to the detriment of the other players leading to overall suboptimal performance for all. As part of efforts to respond to this challenge, the NESG Agriculture and Food Security Policy Commission in partnership with the Alliance for Green Revolution in Africa (AGRA) have flagged off a "Farm pain to Farm Gain" evidence based advocacy campaign, in Nigeria, on the benefits to farmers and the economy; the quick passage of the Fertilizer bill, and the Nigeria Independent Warehouse Receipt System bill by the National assembly, in addition to facilitating the Presidential Assent to the Seed Council Bill. This factbook contains evidence based advocacy briefs and factsheets.

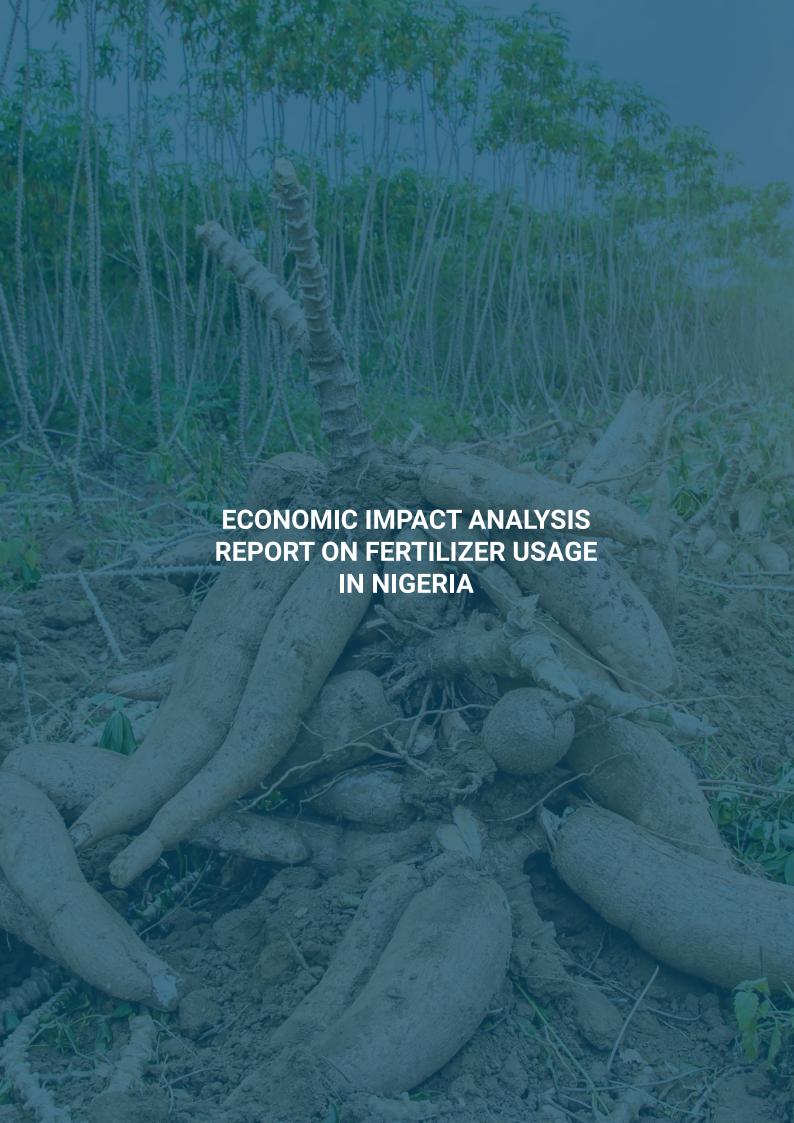
National Fertilizer Quality Control Bill - Factsheet



National Fertilizer Quality Control Bill - Factsheet

- The fertilizer control bill seeks to safeguard the interest of the farmers against nutrient deficiencies, adulteration, misleading claims and short weight of fertilizers.
- It also seeks to protect the interest of fertilizer enterprises and contribute to the creation of an enabling environment for private sector investment in the fertilizer industry.
- The bill ensures that any company involved in the manufacturing, blending or importing of fertilizer must operate with a permit, obtained from the government.
- It states that applications for permits must be approved or disapproved (with reason) within 30 days. This will reduce bottlenecks and ensure speedy grant of permits.
- Despite the bill seeking to create an enabling environment for private sector investment, the government still wields a strong regulatory function in the industry, through its Inspection Officers.
- The bill prohibits the conversion or diversion of fertilizer.
- It also ensures that fertilizer sold is adequately labelled and minimum standards, in terms of nutrient quality of the fertilizer is maintained.

- Quality control
 of the fertilizer
 market/sector, as
 government would
 regulate the sector
 to ensure adherence
 to standards.
- Protection of the soil from depletion.
- Improved yield which would mean improved income for farmers and improved food security.
- Job creation opportunities in the agricultural sector.
- The fertilizer industry will attract investments.
- Deficient fertilizers will attract penalties, which include jail terms.



EXECUTIVE SUMMARY

Contemporary agricultural practice depends largely on the use of critical inputs such as improved seedlings, high quality fertiliser and other farm implements. Nigeria's agricultural production remains largely subsistent and reliant on the usage of fertilizer a component which has not been applied in the desired quality. The implications of this low quality fertiliser application include low productivity, loss of yield, low nutrition, failing health, soil/environmental damage, etc.

This study was commissioned by the NESG to determine the "economic impact of fertiliser usage in Nigeria" using stylised data in a 20-year time series 1997 to 2016. Nine (9) crops were selected grains (Rice, Maize and Sorghum), tubers (Yam, Cassava and Sweet potatoes) and tree crops (Cocoa, Cashew and Oil palm) based on their high level consumption, involvement of large number of farmers and total land use.

The findings indicated a very low level of fertilizer usage of 7 .32 kg/ha compared to required usage of 400 kg/ha showing a huge shortfall of 393 kg/ha or 335,588,868 tons loss in production.

This gap has a direct impact on the current food supply system, food insecurity and availability of raw material for agro based industries in Nigeria. To close the fertiliser usage gap of 393kg/ha and position the country Nigeria on the path of sustainable food security, raw material supply support to industries, Nigeria would require an average annual investment of N4.6 trillion over a period of three (3)years.

Furthermore, the study reviewed the nutrition indices for malnutrition in Nigeria. Data available showed that stunting, wasting and underweight rates is at 37%, 18% and 29% respectively, for children under 5 years. The anaemic status of Nigerian women (15-49 years) on the other hand, showed a reproductive

age of 50%. To create and deliver an impactful, scalable and sustainable programming would require a seamless Public Private Partnership on food value chain.

The passage of Fertilizer Quality Control Bill to drive this Agenda is not only timely but a rational strategic alternative. This would ensure the

availability of high quality fertiliser to the Nigerian Farmer, promote food systems, nutrition and agrobased raw materials regulations and security.

2.0 METHODOLOGY

a. Nine (9) crops across 3 sub-sectors of grains (maize, rice, sorgh u m), tubers (y a m, cassava, sweet potato) and tree (cocoa, oil palm, and cashew) crops were selected on the basis of high local consumption, employment and export potential.

b. Time (20 years) series data were generated for:

i. Production (tons)

ii. Fertilizer use (kg)

iii. Land use (ha)

iv. Cost of fertilizer (N)

v. Gross Domestic Product (GDP)

vi. Inflation

vii. Interest rate

c. Simple regression analysis: Model specification (simple regression equation):

Where

Y = crop yield/ha

X1 = fertilizer (kg)

X2 = total land usage X3 = cost of fertilizer X4 = GDP

Xs = Inflation

X6 = Interest rate a= Slope

c = Intercept

3.0 DATA REPRESENTATION

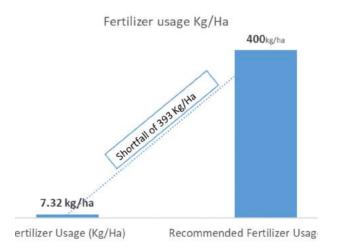
Assumption

Grain: Maize, Rice, Sorghum Tuber: Cassava , Yam, Sweet potato Tree: Oil palm, Cashew, Cocoa		
The crops selected are from the three main subsectors (grain, tuber and tree crops) and are the most widely produced and consumed in Nigeria. Hence, taking a large chunk of fertilizer usage.		
The study assumed that the fertilizer usage was in the recommended quality (ratio and density).		
The study captured production of each crops (quantity) but seed quality was held constant.		
1997-2016		
10,359,544.36		
10.19		
7.32		
400		
393		
335,588,868		
4,614,346,930		
80,720,308,954,918		
25,386,956,340,826		

Source: FAOSTATS, NBS, NISS, Knoema, IndexMundi

4.0 RESULTS & ANALYSIS

4.1 RESULTS



Source: Figure 4.1. Fertilizer Usage (Kg/Ha)

The findings of this study showed that for the three selected subsector (grains, tuber and tree crops) there is an average fertilizer usage of 7.32kg/ha which is a wide contrast from the recommended fertilizer usage for countries in the savannah zones. The National Institution for Soil Science (NISS) recommended an average of 400kg/ha in Nigeria. This implies that there is currently a shortfall of 393kg/ha of fertilizer usage in Nigeria.

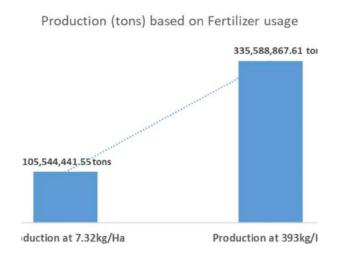


Figure 4.2 Production (tons) based on fertilizer usage

Finding from this study showed that Nigeria currently produces an average of 105,544,441.55 tons of the selected crops studied (grains, tubers and tree crops) with an average fertilizer usage of 7 .32kg/ha against the recommended 400kg/ha. A simple regression analysis of the shortfall of 393kg/ha of fertilizer usage showed that 335,588,867.61 tons of production yield is lost due to the inadequacy of fertilizer usage yearly.

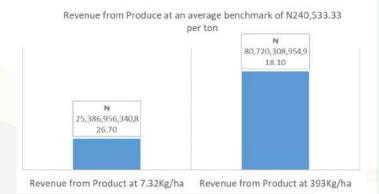


Figure 4.3 Revenue from produce at 7.32kg/ha and at 393kg/ha

An average benchmark of N 240,533.33 per ton was used to determine revenue from 9 crops selected in this report. The finding shows that at 7.32Kg/ha the revenue 1s about N25,386,956,340,826.70. Increasing the fertilizer usage to meet the shortfall of fertilizer usage 393 kg/ha will increase the revenue to N80,720,308,954,918.10. This further shows that the nation 1s losing in revenue generation by not making the recommended fertilizer volume available for farmers.

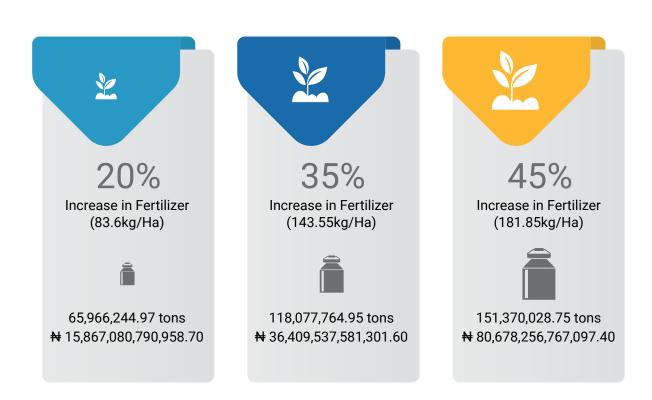


Figure 4.4 Three (3) year forecast on revenue gain from adequate fertilizer usage between 2019 -2021

The figure above indicates the three year forecast on adequate fertilizer usage to maximize revenue gain from the current fertilizer utilization by farmers. The actual fertilizer consumption is 7.32kg/ha. In order to increase crop yield, there is need for investment in the production of quality fertilizer and advocacy to farmers on application of adequate quantity of fertilizer to crops.

Achieving this multiplier effect in the next three years will involve injecting NIS,867,080 790,959, N36,409,537,581,302 and NS0,678,256,767097 in the fertilizer and seed industries in 2019, 2020 and 2021 respectively. This will result in fertilizer utilization of 83.6kg/ha, 143.6kg/ha and 181.85kg/ha in the 3 years successively. Subsequently, there will be an upsurge in yield (tons) from the present

average of 10 tons per hectare of the 9 crops evaluated to 151,370,029 tons per hectare.

4.2 ANALYSIS

4.2.1 Yield/ Hectare

For every hectare of arable land for the nine (9) selected crops, Nigeria currently loses 336 million tons due to inadequate use of fertilizer. Correspondingly, the estimated loss in revenue stands at N81 trillion (see figures 4.2 and 4.3 above).

4.2.2 Nutrition

This amount (N81 trillion) if earned is sufficient to feed an estimated 71,428 people daily at an average of N2000 per person (N81trillion/ 189m*N2000/365).

Malnutrition is a condition that occurs when people do not constantly consume adequate diverse nutritious foods and essential nutrients. With the worsened malnutrition prevalence in Nigeria, underweight prevalence (children who are thin for their age under 5 years) is estimated at 29%, stunting prevalence (children who are short for their age under 5 years) is estimated at 37%, wasting prevalence (children who are thin for their height under 5 years) is estimated at 18%. About 45% of all under-5 deaths are accredited to undernutrition, low birth weight which is a significance of maternal undernutrition. Approximately 2.5 million children under 5 years are affected by malnutrition in Nigeria. This accounts for one-tenth of the global total implication that about 1000 children deaths in Nigeria are malnutrition-related cases. To advance nutrition outcomes, the availability and affordability of safe nutritious foods must be improved especially for those most vulnerable to malnutrition.

Malnutrition has a high economic and health cost and a return of \$16 on every \$1 invested (i.e. N5760 return on every NI invested). The N81 trillion revenue loss could be a source of domestic investment for the scale up of Community management of Acute Malnutrition in target States with high rates of undernutrition. This will influence increased budgetary allocation to nutrition in Northern Nigeria and in the Country at large. The greater opportunity is for government and others to invest in nutrition in an integrated way, across sectors that impact on nutrition outcomes directly, like agriculture and indirectly, like education, health, climate change, or water and sanitation.

GLOBAL TARGET & CURRENT NIGERIA INDICES FOR NUTRITION INDICATORS							
NUTRITION INDICATORS	GLOBAL BENCHMARK/ TARGET	NIGERIA NUTRITION INDICES	REMARKS				
Stunting prevalence for children under -5 years	Achieve a 40% reduction	37%					
Wasting prevalence for children under - 5 years	Reduce and maintain childhood wasting to less than 5%	18%	Negative				
Anaemia in women of reproductive age between 15 - 49 years	Achieve a 50% reduction	50%					

Table 4.1 Global target and Current Nigeria indices of nutrition indicators

4.2.3 Health

Furthermore, this amount (N81 trillion) is estimated to provide a minimum of 324 primary health care centres across Nigeria (N81trillion/N250m per primary health care facility) (i.e. 9 primary health centres in each State of the Federation including FCT).

The budgetary allocation for health is far below the minimum targeted 15%. Enhancing efforts towards reducing malnutrition in Nigeria will relieve the burden on our already stretched health system. When malnutrition is managed, there will be less sick persons visiting the health facilities which directly has positive impact on our economic outcomes in terms of human capital development, productivity and gain in revenue.

4.2.4 Employment

Also, it is estimated that this amount (N81 trillion) will provide employment for 375,000 people annually, hence reducing the current rate of 16m unemployed Nigerians (N81trillion/N18, 000 minimum wage).

5.0 RECOMMENDATIONS AND CONCLUSION

The current fertilizer usage in Nigeria should be increased to the optimal recommended of 400kg per hectare as opposed to the current practice of 7.32kg/ha. This requires an additional investment of N81 trillion over the next 3 years which will be infused

into the Fertilizer and Seed industries between the three year period at 20%, 35% and 45% according to the forecast. Enhanced crop yield is very vital to resolve the issue of malnutrition in Nigeria because the nation will have access to varieties of nutritious diverse foods. As a result of this investment and passage of the fertilizer quality control bill, child and maternal morbidity and mortality will decline, thereby easing the burden on the health sector. Adulteration of fertilizers will be regulated and blending plants activities will be monitored and evaluated. The role sharing for this investment will be between Government on its part of sustained off take price (subsidy) of N5500 and private sector fertilizer manufacturers. This will increase the yield per hectare and will resolve the serious challenge in health, nutrition and unemployment in Nigeria.

To provide the enabling environment for this projected investment to succeed. There is an urgent need to pass the fertilizer Bill which will address issues of quality, availability, higher revenue and yield, good health, environmental sustainability and general economic development. The repercussion of the Government's continuous delay to pass the Fertilizer Quality Control Bill, Seed Bill and Warehouse Receipt System Bill will weaken the entire agricultural value chain, increase undernutrition, stretch the already weak health system and worsen unemployment.

This in our considered opinion, will be a rational policy alternative.

REFERENCE

Agricultural Performance Survey for Wet Season in Nigeria (2017). National Agricultural Extension and Research Liaison Services (NAERLS)

Economic Community of West African States (ECOWAS) Rice Fact Book

Food and Agriculture Organization Statistics (FAOSTATS) Global Nutrition Report (2017). Nourishing the SDGs National Nutrition and Health Survey 2015 National Bureau of Statistics (NBS)

Regulatory impact assessment of the fertilizer quality control bill (FQCB) (2017). Fertilizers, Suppliers and Producers Association of Nigeria (FEPSAN) World Bank











