

Agro-Allied Expansion: The Green Climate Finance Perspectives

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Abstract

Research projections indicate persistent agricultural strain as rainfall levels are set to continue declining while temperatures increase due to ozone layer depletion and climate change. There is food shortage for the teeming populace in Nigeria thus having its negative effects on the people and the economy. The shortfall in food supply could be adduced to climate change, insecurity, poor agricultural credit facility, poor government policy roadmap e.t.c. This paper tends to x-ray the possibility of channeling the grant for agro- allied expansion by designing and fabricating farm tools for farming purposes, increase yield, food sufficiency and promotion of indigenous technology via the Green Climate Fund (GCF) supports. A weekly climate data were collected from two geographical zones (Southwest and North East) in Nigeria and their seasonal variation in land tilling actions were taken with appropriate financing mechanism of the United Nations (UN) which provided a grant of 2.5 million dollars to the Bank of Industry (BOI) through the French Development Agency (FDA) being one of the entities accredited by the Green Climate Fund. This technical assistance grant strengthens Bank of Industry's capacity by providing funds for agro- allied tools and development of eligible climate-related projects financed with commensurable annual yields of grains in tons. It is concluded that the overall agricultural framework has solved the perennial acute shortage of food and revamp the economy.

Keywords: *Agro- Allied, People, Food, Climate, Grant, Indigenous, Technology.*

I. INTRODUCTION

There are lot of issues surrounding the under-development of Africa and these myriad of problems are many and varied. It ranges from acute food shortage, climate related loss and damage, insecurity, poor infrastructure, high crime rate, poor research funding, lack of indigenous technology to drive the industrial sector and capital market financial loss due to dwindling exchange rate on the stock exchange market floor among others. Nigeria is a prominent country within the African continent and it is located on the west of Africa bordering the Gulf of Guinea in the south, the Republic of Benin in the west, Chad and Cameroon in the east and Niger in the north. Nigeria ought to be feeding her sister countries being the giant of Africa with a population of 220million people and 923,768sq fertile landmass with so many minerals buried beneath the earth (gold, bitumen, crude oil, limestone, lead, iron- ore, coal, natural gas, tin, zinc, lithium and many others (NPC, 2000). These resources are in high demand by global brands and countries, as they are crucial to the production of various goods and services. Despite the abundance of resources, Nigeria still lacks the

technical knowhow to process and increase the value chain of her raw materials before exporting to other countries hence the dire need to fund the agro- allied sector by fabricating equipments that will facilitate the promotion of indigenous technology. Nigeria will do well in the area of agro- allied equipment manufacturing and supply so as to maintain agricultural equipment such as palm kernel extractor, palm oil processor, cassava press, cassava grater, cassava chipper, corn/ maize grinding mill, maize sheller, rice de- husker and de- stoner, feed mill mixer, planter and hammer mill.

Green bond is an aspect of green climate finance or fund mobilized and invested for preservation of environmental resources to achieve climate change mitigation and adaptation. According to Adeyipo (2019); he opined that the current food shortage being experienced in some major African countries could be adduced to a rise in destructive floods, farmlands being submerged, washed away by heavy downpour, causing damage to planted crops, infrastructure, and livelihood hence accessing green climate fund will bolster Nigeria's ability to implement long term strategies for flood risk management and aid

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agro- allied industry expansion. Several research studies provide evidence of positive relationship between green bond investment and inclusive green economy growth. Saka & Akinde (2022); Chen et al (2018); Liu (2019) submitted that green finance bond access is more prominent in Asia unlike in Africa where it is not pronounced or popular until in recent times when research efforts are being geared towards solving ecological problems and climate induced disasters with fund raised from AfDB and UNDP. This research gap shows that a pragmatic approach needed to be taken for more investment in Africa so that African nations will not be subsumed with the risk profile of green house effect hence the current study is motivated.

Howard (2016) reiterated the dire need for green climate finance (GCF's) partnership with African Development Bank (AfDB) as this will unlock the potential across the African continent to pursue climate resilient and low- carbon emission growth. This partnership will help African countries in implementing their national determined contributions (NDC) under the Paris Agreement of 2015. According to Akinwunmi (2018); he affirmed that if the fight against climate change is not won in Africa, it cannot be won anywhere because it is crystal clear that the level of climate change threat in Africa is high and it is by defeating it that we can reach a global solution. He reiterated a collaborative efforts between African Development Bank (AfDB) and Green Climate Fund (GCF). UNDP is poised to offer innovative solutions to the climate crisis in more than 100 countries, Nigeria inclusive.

Adejo (2022), Saka & Akinde (2022) considered the significant rationale behind launching and issuance of the first green bond by the FGN in 2017 popularly known as 2015 Paris Agreement. This agreement was aimed at fostering Africa's financial sector revitalization through this climate bond initiative (CBI) and a sum of #40.69billion was raised in 2017 and #15 billion in 2019 to finance critical environmental issues. In other climes,

green climate finance are equally being utilized for critical social, economic, and environmental projects, for example; the Avaana Sustainability Fund (ASF) is a USD 120 million venture capital fund that aims to invest in early- stage climate technology companies in India. Atarere, (2016) emphasizes financing the agro- allied sector using fund sourced from the green climate scheme as this will help in the timely processing of some perishable and non- perishable agricultural produce and such finished commodities can be beneficial to the people and the economy. Agro-business influences up to 24.18% of the Gross Domestic Product and is considered as one of the drivers of the economy's growth (Dada et al, 2021)

II. METHODOLOGY

An econometric study of the available finance schemes vis- a- vis the body issuing such fund, benefitting states, project embarked upon and probable extension to agro- allied industry's small and medium scale enterprises in order to boost local design and fabrication of some agro- allied equipment in Nigeria for agro- produce processing were carried out via structured questionnaire. The general household survey technique (GHS) was based on wheat production from three (3) geopolitical zones in Nigeria:

- North East comprising of Adamawa, Bauchi, Borno, Gombe, Taraba and Yobe
- North Central comprising of Benue, Kogi, Kwara, Nasarawa, Niger and Plateau
- South South comprising of Akwa- Ibom, Bayelsa, Cross River, Delta, Edo and River

III. RESULTS

A comprehensive analysis of the data focusing on the key findings of a grain cultivation vis-a- vis project location and the fund source in Nigeria were obtained using

Table 1 Agro- Allied Equipment Investment

S/N	Equipment Description	Source of Fund/GCF
1	Maize shelling machine	AfDB
2	Weeder	AfDB
3	Planter	AfDB
4	Harvester	AfDB
5	Herbicide	AfDB
6	Silos	AfDB

Table 2 Selected States for Grain Farming

S/N	State	Grain Farm Covered	Source of Fund/ GCF
1	Kano	10	AfDB
2	Adamawa	10	AfDB
3	Plateau	10	AfDB
4	Bauchi	10	AfDB
5	Niger	10	AfDB
6	Delta	10	AfDB

Table 3 Average Grain Farm size covered

S/N	State	Average Farm Size (Sq)	Average Farm Size (Hectares)
1	Kano	3339.50	0.33
2	Adamawa	6464.81	0.65
3	Plateau	1723.20	0.17
4	Bauchi	6688.11	0.67
5	Niger	4267.33	0.42
6	Delta	1723.20	0.17
	NATIONAL	24,206.15	2.41

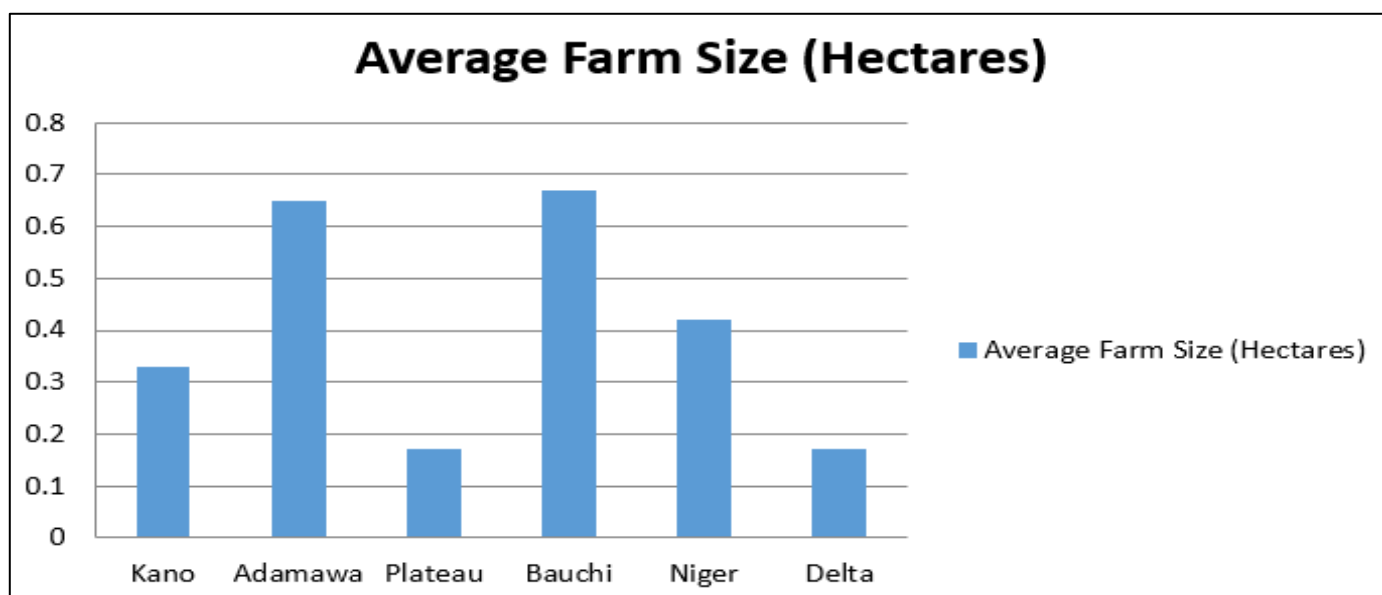


Fig 1 Average Farm Size (Hectares)

Table 4 Grain Yield in Kilogram

S/N	State	Acreage	Yield/H(Kg)	Yield/H(Metric Tons)	Prod/ Kg	Prod/Metric Tons
1	Kano	2,326	2,800	2.8	6,512,800	6,512.8
2	Adamawa	2,091	2,800	2.8	5,854,800	5,853.8
3	Plateau	505	3,800	3.8	1,919,000	1,919.0
4	Bauchi	393	3,200	3.2	1,257,600	1,257.6
5	Niger	192	3,500	3.5	672,000	672.0
6	Delta	184	3,100	3.1	532,000	532.0
	TOTAL	5,691	19,200	19.2	16,748,200	16747.2

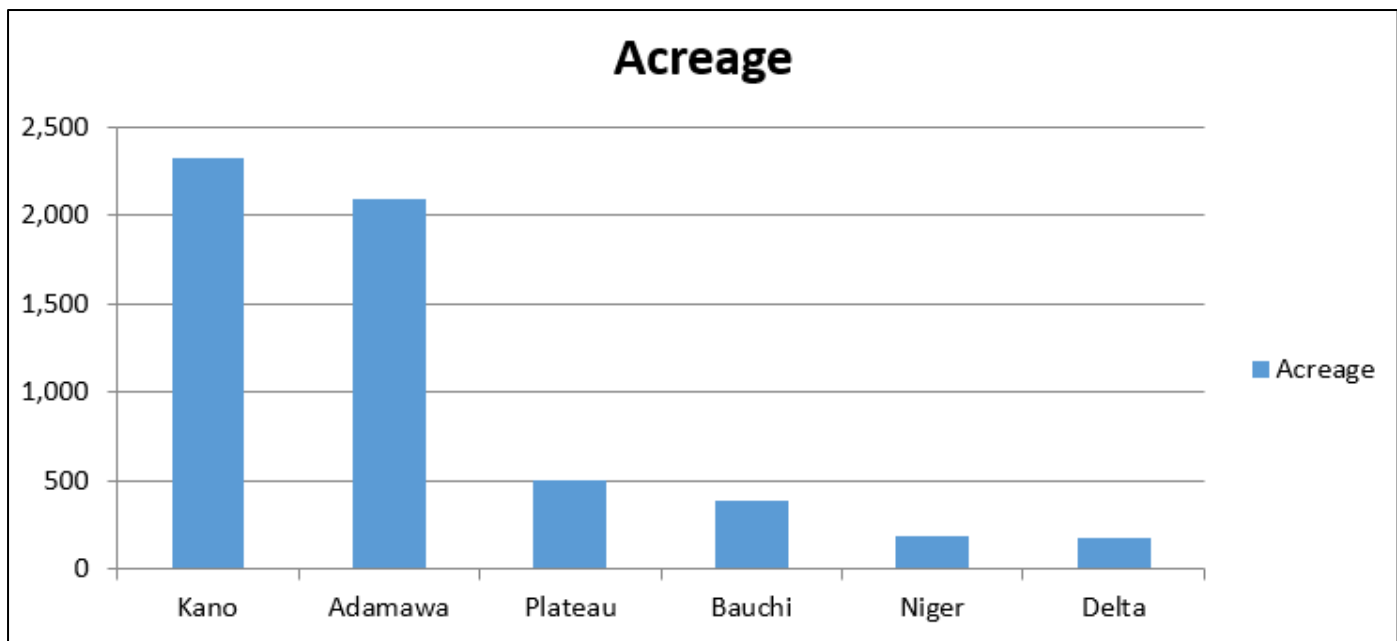


Fig 2 Acreage

IV. DISCUSSION

Table 4 depicts that wheat is cultivated on a landmass of about 5,691 hectares thus yielding 16,748,200 tons of grain. This amounts to 40.9% in Kano state. 36.74% output level was recorded in Adamawa while Plateau state accounted for the least (8.9%). Similarly, state-wise comparison of wheat production shows that Kano state is the major producer of wheat with production of 6,512.8 tonnes, Adamawa state produced 5,853.8 tonnes while Plateau state yielded 1,919.0 tonnes. However, in terms of average yield per hectare, Kano and Adamawa's yield are low compared to Plateau state and others. Plateau state recorded the maximum yield (3.8 tonnes/ hectare), followed by Niger state (3.5 tonnes/ hectare) while Delta state has the least (3.1 tonnes/hectare), followed by Kano and Adamawa states with 2.8 tonnes per hectare each.

V. CONCLUSION

It is concluded that the increase in yield of grain will bring about a positive impact on the supply for human consumption and livestock feed production, expand the agro- allied industry and create employment opportunities for prospective small and medium scale enterprise. The overall economy will be transformed when productivity is high.

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