Journal of Agriculture and Environment Vol. 17 No. 1, 2021: 27-38
ISSN: 1595-465X (Print) 2695-236X (Online)

IMPACT OF *BUHARINOMICS* ON RICE, MAIZE AND SORGHUM PRODUCTION IN NIGERIA

A.A. Ammani

National Agricultural Extension and Research Liaison Services, Ahmadu Bello University, Zaria, Nigeria

ABSTRACT

Buharinomics as used in this paper referred to the main thrust of the Buhari's administration that affects agricultural production viz the Central Bank of Nigeria's Anchor Borrowers' Programme alongside the closure of Nigeria's land borders. The broad objective of this study was to assess the impact of *Buharinomics* on rice, maize and sorghum production in Nigeria. Time series data on aggregate maize production, maize hectarage, Sorghum production, sorghum hectarage, rice production, rice hectarage and rice imports in Nigeria for the period 1999-2019 were collected from FAOSTAT and used. Descriptive statistics, growth trend analysis and the Student's t test technique for comparison of means of independent samples were used to analyse the study data. *Buharinomics* have positively increased (i) the volume of rice (t value 7.954**, mean difference 2525453.60 with an average increase of 196.82%) and maize (t value 5.199**, mean difference 4141312.00 with an average increase of 161.22%) domestically produced (ii) total area put under rice (t value 8.554**, mean difference 2548053.98 with an average increase of 205.30%) and maize (t value 5.602**, mean difference 2722199.14 with an average increase of 165.80%) cultivation in Nigeria. It also significantly reduced the volume of rice importation (t value 3.119**, mean difference 779624.55 with an average decrease of 2136.87%). The study concluded that though *Buharinomics* have significantly increased maize production, maize hectarage, rice production, rice hectarage as well as reduced rice imports in Nigeria it has not improved average yield or productivity of the three crops of interest in this study. Ways to improved farmers' agronomic practices capable of leading to higher crop yield were recommended including literate farmers' access to extension publications and improved seeds and technologies.

Keywords: *Buharinomics*; Rice; Maize; Sorghum; Productivity; Hectarage

INTRODUCTION

Agriculture was the mainstay of the Nigerian economy since independence. Smallholder agricultural production for export provided the stimulus to Nigeria's overall economic growth (Ilugbuhi, 1968). Agriculture provided employment to over 75% of the population and accounted for over 70% of total food production as well as provided raw materials for agro-based industries and export earnings to finance imports and foreign

exchange (Reynolds, 1966; Alamu, 1981). That was the scenario until the discovery of crude oil in commercial quantities. As early as 1980, as observed by Abdullahi (1981), Nigeria's agriculture became neither capable of producing enough food for the country's fast-growing population; nor able to "cope with the growing demands for agricultural raw materials to keep the country's agro-based industries running". Several studies attributed the decline in the performance of the Nigerian agricultural sector to government neglect of the sector following the exponential increased foreign exchange earnings realized from the export of crude oil between 1972 and 1980 (Asiabaka and Owens, 2002; Walkenhorst, 2007; Sekumade, 2009). The international oil market plunged in 1982, drastically reducing Nigeria's ability to finance imports, including food, leading to persistent account deficits and the accumulation of unpaid trade bills (Osuntogun *et al*., 1997). Trade deficits, budget deficits, inflation, balance of payments problems, and other symptoms of economic decline became seriously manifest (Osaghae, 1995).

Over the years, the federal government introduced policies and programmes aimed at diversifying the Nigerian economy away from oil, notably the structural adjustment programme (SAP) with the broad objective of restructuring and diversifying the productive base of the economy in such a way as to reduce dependency on the oil sector and imports (Moser *et al*., 1997). In 2011, the FGN launched the Agricultural Transformation Agenda (ATA) Programme with a vision "to achieve a hunger-free Nigeria through an agricultural sector that drives income growth, accelerates achievement of food and nutritional security, generates employment and transforms Nigeria into a leading player in global food markets to grow wealth for millions of farmers" (FMARD, 2011).

The Central Bank of Nigeria (CBN) policy initiative, Anchor Borrowers' Programme (ABP), alongside the closure of Nigeria's land borders, were the main thrust of the Buhari's administration that affects agricultural production and are collectively referred to, in this paper, as Buharinomics. The ABP was launched on the 17th of November 2015 aimed at the creation of jobs, reduction in food import and diversification of our economy through increasing output and significantly improving capacity utilization of integrated mills (CBN, 2015). The programme thrust of ABP is the provision of farm input in kind and cash (for farm labour) to small holder farmers to boost production of the identified commodities, stabilize input supply to agro-processors and address the country's balance of payments in food (CBN, 2016). One of the key expected outcomes of the ABP is to increase output per hectare of selected commodities to international standards (CBN, 2015). The importance of rice, maize and sorghum in the Nigerian agricultural sector cannot be over-emphasized.

The justification for this study is twofold. First, Schultz (1976), while delivering the first Leonard Elmhirst Lecture, challenged agricultural economists to evaluate the economic effects of what governments 'do to agriculture' arguing that much of the difference in the economic performance of the agricultural sector is a consequence of what governments 'do to agriculture. This study intends to take on this challenge. Second, this study is expected to modestly contribute to the literature on our understanding of the effects of government policies on agricultural crop production in Nigeria which would hopefully provide insights for policymakers that could lead to the formulation of better agricultural policies in Nigeria. Therefore, the objective of this paper is to assess the effects of *Buharinomics* on rice, maize and sorghum production in Nigeria.

METHODOLOGY

Data

Time series data on aggregate maize production, maize hectarage, Sorghum production, sorghum hectarage, rice production, rice hectarage and rice imports in Nigeria for the period 1999-2019 were sourced from FAOSTAT http://www.fao.org/faostat/en/#data/TP and used for this study.

Analytical Technique

Descriptive statistics, Growth trend analysis and Student 's t test (Independent sample t-Test) technique for comparison of means of independent samples were used to achieve the study's objectives.

Model specification for the growth trend analysis model is based on Gujarati (2003), Gujarati and Porter (2009) and Chiang and Wainwright (2005). Applying the well-known compound interest formula to the problem of maize production/hectarage/yield.

$Y_t = Y_0 (1+r) t$ ……. (1)

Where:

Y_t = quantity of crop produced/hectarage in year t
Y_0 = the quantity of crop produced/hectarage in the base year 1999
r = compound rate of growth of Y
t = time in chronological years

Taking the natural log of eqn (1) to make it linear, thus

In Yt = In Yo + tIn(1+r) ……. (2)

Substituting In Yo with β1 and In (1+r) with β2, eqn (2) is rewritten as

In Yt = β1 + β2t …….. (3)

Adding the disturbance term to eqn (3) we obtain

In Yt = β1 + β2t + μt ……. (4)

Eqn (4) is the growth rate model developed for, and estimated in, this study. A semi-log growth rate model was developed for this study instead of a linear trend model because the study is interested in relative change.

The parameter of utmost interest in eqn (4) is coefficient of β2 (b2), the slope coefficient which measures the constant proportional or relative change in Y for a given absolute change in the value of the regressor t.

Taking the antilog of b2 and subtracting 1 from it and then multiplying the difference by 100 gave the compound growth rate (CGR) over a period.

CGR = [antilog b2 – 1] x 100…….. (5)

RESULTS AND DISCUSSION

Trends in Rice, Maize and Sorghum production and hectarage (1999-2019)

Figs 1-3 are graphic representations of the trend in domestic production and hectarage for rice, sorghum, and maize, including imports for rice, over the period 1999-2019. Domestic rice production and hectarage has been on the increase throughout the period. As expected, rice imports dropped rapidly in 2015 and started climbing slowly thereafter (Fig.1). Sorghum production and hectarage had fallen since 2009 and started picking up thereafter, though yet to reach the pre-2009 levels (Fig.2). In the case of maize, both domestic production and hectarage have been on the increase throughout the period covered in the study reaching a peak in 2016 and slightly dropping thereafter though the levels were relatively higher than the pre-2009 levels (Fig. 3). Fig 4 depicts the trends in productivity measured in tonnes per hectare for the three selected crops over the period 1999-2019.

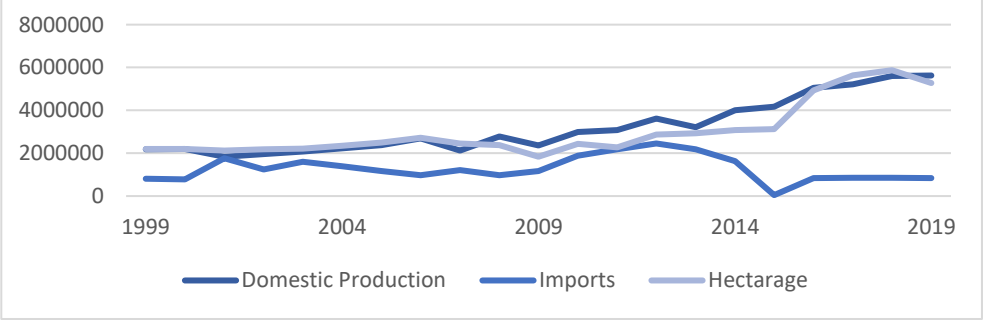

Fig. 1: Graphical description of the pattern of domestic rice production, rice imports and rice hectarage in Nigeria (1999-2019)

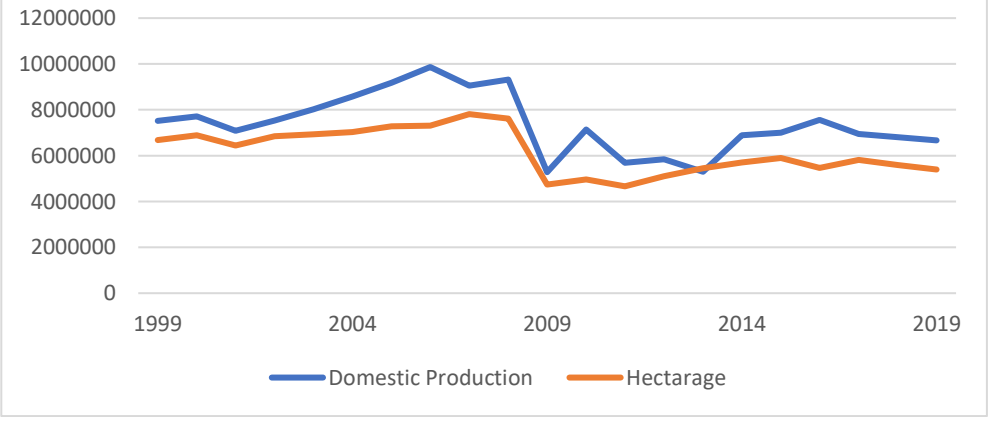

Fig. 2: Graphical description of the pattern of domestic sorghum production and hectarage in Nigeria (1999-2019)

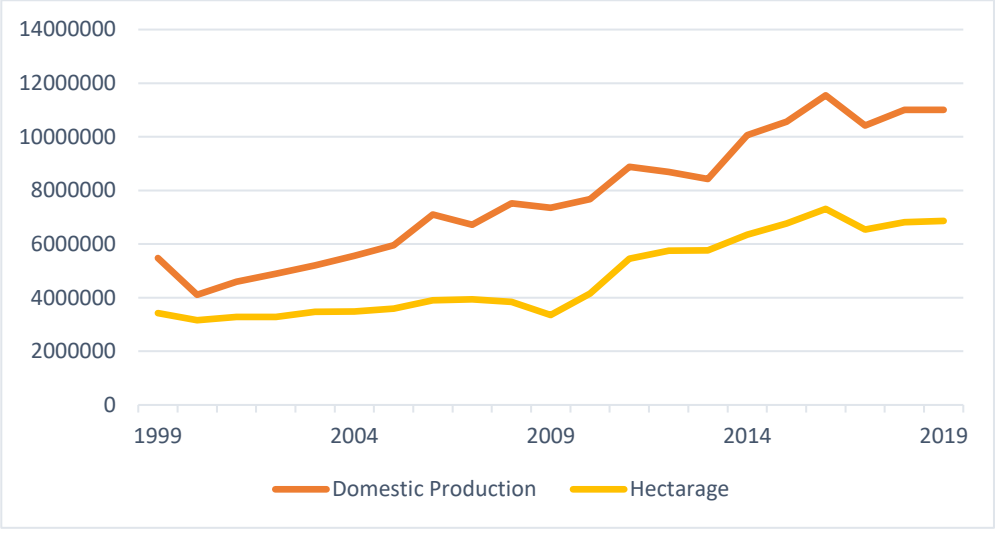

Fig. 3: Graphical description of the pattern of domestic maize production and hectarage in Nigeria (1999-2019)

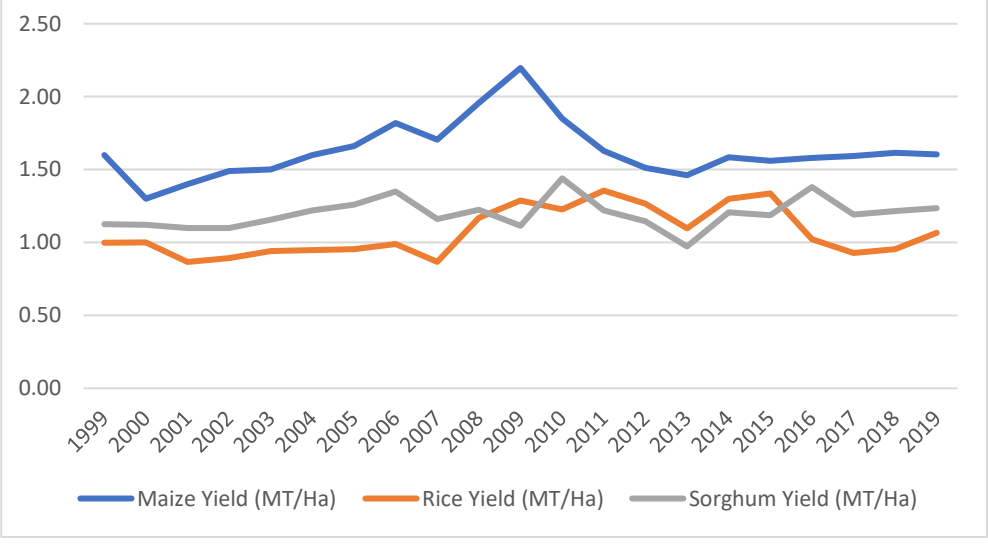

Fig. 4: Graphical description of the trend in productivity (MT/Ha) for Maize, Rice and Sorghum in Nigeria (1999-2019)

Results of trend analysis for domestic production and hectarage for rice, sorghum and maize, including imports for rice, over the period 1999-2019 are presented in Table 1. A growth rate of 2.87%, 2.85% and 2.62% was estimated for domestic rice production, rice hectarage and rice imports respectively for the period 1999-2019. These findings suggest that there has been increase in all the three (3) parameters over the period covered in this study.

A growth rate of 3.05% and 2.95% was estimated for domestic maize production and maize hectarage respectively for the period 1999-2019. These findings indicate that there has been increase in both parameters over the period covered in this study. A growth rate of 3.00% and 2.96% was estimated for domestic sorghum production and sorghum hectarage respectively for the period 1999-2019. These findings suggest that there has been increase in both domestic sorghum production and sorghum hectarage over the period covered in this study. All the findings agree with those reported by Adedeji *et al.* (2017) that time has positive effect on crop output and hectarage in Nigeria over the period 1961-2014; and Oni *et al.* (2018) that crop production in Nigeria has grown in the past decades.

Annual averages of 2,608,365.00 and 5,133,818.60 tons were calculated for domestic rice production in the 1999-2014 and 2015-2019 periods, respectively with a corresponding minimum and maximum of 1,835,584 and 5,626,145 tonnes, respectively. Annual averages of 2,419,878.63 and 4,967,932.60 hectares were calculates for area harvested with rice in the 1999-2014 and 2015-2019 periods respectively with a corresponding minimum and maximum of 1,836,880 and 5,873,615 hectares, respectively. Annual averages of 14,656,510.75 and 685,886.20 tonnes were calculated for rice imports in the 1999-2014 and 2015-2019 periods respectively with a corresponding minimum and maximum of 45,000 and 2,455,202 tonnes, respectively. This indicates that average quantity of rice domestically produced and hectarage put under cultivation during the period 2015-2019 are higher than the averages obtained for the period 1999-2014. As expected, average quantity of rice imported during the period 2015-2019 was lower than that for the 1999-2014 period.

Annual averages of 6,764,694.00 and 10,906,006.00 tonnes were calculated for domestic maize production in the 1999-2014 and 2015-2019 periods respectively with a corresponding minimum and maximum of 4,107,000 and 11,547,980 tonnes, respectively. Annual averages of 4,137,185.06 and 6,859,384.20 hectares were calculates for area harvested with maize in the 1999-2014 and 2015-2019 periods respectively with a corresponding minimum and maximum of 3,159,000 and 7,312,078 hectares, respectively. This indicates that averages quantity of maize produced locally, and area put under cultivation during the period 2015-2019 were higher than the averages obtained for the period 1999-2014.

Annual averages of 7,499,434.69 and 6,993,020.20 tonnes were calculated for domestic sorghum production in the 1999-2014 and 2015-2019 periods respectively with a corresponding minimum and maximum of 5,279,170 and 9,866,000 tonnes, respectively. Annual averages of 6,340,385.13 and 5,636,854.00 hectares were calculates for area harvested with sorghum in the 1999-2014 and 2015-2019 periods respectively with a corresponding minimum and maximum of 4,661,867 and 7,812,000 hectares, respectively. This indicates that average quantity of sorghum domestically produced and hectarage area planted during the period 2015-2019 are lower than the averages obtained for the period 1999-2014, suggesting a decline in quantity produced and area planted for sorghum in Nigeria. The findings are in agreement with that of Maikasuwa and Ala (2013) who reported decline in hectarage and production of sorghum in Sokoto State during the period 1993-2012. This could be attributed to a lag in crop improvement effort in sorghum relative to other cereals and the extreme environmental conditions and resource constrained low-input farming systems where the crop is grown (Macauley, 2015).

Table 1: Trend analysis, average annual averages, minimum and maximum values

S/No	Parameter	Compound trend (%)	Annual Average 1999-2014	Annual Average 2015-2019	Minimum	Maximum
1	Domestic Maize Production (MT)	3.050	6,764,694.00	10,906,006.00	4,107,000	11,547,980
2	Area Harvested Maize (Ha)	2.947	4,137,185.06	6,859,384.20	3,159,000	7,312,078
3	Domestic Rice Production (MT)	2.868	2,608,365.00	5,133,818.60	1,835,584	5,626,145
4	Area Harvested Rice (Ha)	2.850	2,419,878.63	4,967,932.60	1,836,880	5,873,615
5	Rice Import (MT)	2.617	14,656,510.75	685,886.20	45,000	2,455,202
6	Domestic Sorghum Production (MT)	3.003	7,499,434.69	6,993,020.20	5,279,170	9,866,000
7	Area Harvested Sorghum (Ha)	2.963	6,340,385.13	5,636,854.00	4,661,867	7,812,000

From the results of the student's t test (Table 2), there is significant difference ($p<0.05$) in mean quantity of domestic rice produced between the period 1999-2014 and 2015-2019. The mean difference of -2,525,453.60MT indicates that the mean quantity of rice domestically produced in Nigeria in the period 2015-2019 is significantly higher than the mean annual quantity produced during the 1999-2014. Thus, more rice is produced locally in the 2015-2019 period.

There is significant difference ($p<0.05$) in mean area cultivated with rice between the period 1999-2014 and 2015-2019. The mean difference of -2,548,053.975ha indicates that the mean area planted for rice in Nigeria in the period 2015-2019 is significantly higher than the mean annual area cultivated during the 1999-2014. Thus, more area cultivated was put under rice cultivation in the 2015-2019 period.

The mean quantity of rice imported between the period 1999-2014 and 2015-2019 showed significant differences ($p<0.05$) as indicated in Table 2. The mean difference of 779624.55MT indicates that the mean quantity of rice imported in Nigeria in the period 2015-2019 is significantly lower than the mean annual quantity imported during the 1999-2014. Thus, more rice is imported in the 1999-2014 period.

The calculated t value of 0.755 is found to be not significant (p>0.05), hence the null hypothesis is accepted, indicating a non-significant difference in the quantity of domestic sorghum produced between the period 1999-2014 and 2015-2019. From the results of the Student's t test, there is no significant difference (p>0.05) in the mean area cultivated with sorghum between the period 1999-2014 and 2015-2019.

The calculated t value of -5.199 is found to be highly significant when viewed in relation to the computed p-value of 0.000, hence the null hypothesis is rejected, and it is thus concluded that there is significant difference in mean quantity of domestic maize produced between the period 1999-2014 and 2015-2019. The mean difference of -41,413,112.00MT indicates that the mean quantity of maize domestically produced in Nigeria in the period 2015-2019 is significantly higher than the mean annual quantity produced during the 1999-2014. Thus, more maize is produced locally in the 2015-2019 period.

The calculated t value of -5.602 is found to be highly significant when viewed in relation to the computed p-value of 0.000, hence the null hypothesis is rejected, and it is thus concluded that there is significant difference in mean area cultivated with maize between the period 1999-2014 and 2015-2019. The mean difference of -2722199.138Ha indicates that the mean area cultivated with sorghum in Nigeria in the period 2015-2019 is significantly higher than the mean annual area cultivated during the 1999-2014. Thus, more area cultivated was put under maize cultivation in the 2015-2019 period.

Table 2: Results of the independent sample t test

S/No	Parameter	t-value	Df	p-value	Mean Difference
1	Domestic Maize Production (MT)	-5.199**	19	0.000	-4,141,312.000
2	Area Harvested Maize (Ha)	-5.602**	19	0.000	-2,722,199.138
3	Domestic Rice Production (MT)	-7.954**	19	0.000	-2,525,453.600
4	Area Harvested Rice (Ha)	-8.554**	19	0.000	-2,548,053.975
5	Rice Import (MT)	3.119**	19	0.006	779,624.550
6	Domestic Sorghum Production (MT)	0.755	19	0.460	506,414.488
7	Area Harvested Sorghum (Ha)	1.437	19	0.167	703,531.125

Fig 5 presents comparison of average yields in MT/Ha for rice, maize and sorghum for the period (1999-2014), (2015-2019) and selected 2019 international averages. Nigeria's average yield of 1.06MT/Ha for rice in the period 2015-2019 is lower than that for the period 1999-2014 (1.07MT/Ha). It was also lower than Nigeria's average for 2019 (1.07MT/Ha) and that of Africa (2.26MT/Ha), Asia (4.88MT/Ha) and Europe (6.45MT/Ha) for the same year. This suggests that average yield for Nigeria is lower than what is obtained from other parts of the world and that rice output in Nigeria is more a function of hectarage expansion than of increased productivity. The findings for rice are almost same with that for maize and sorghum over the period covered in the study. These findings suggest that the positive and significant increase observed in domestic rice and maize production in this study could be attributed to hectarage expansion rather than intensification in production. The finding is in agreement with the findings of Adebayo and Ibraheem (2015), Oni *et al* (2018) and Ammani (2013) that increase in crop production in Nigeria is based on land expansion.

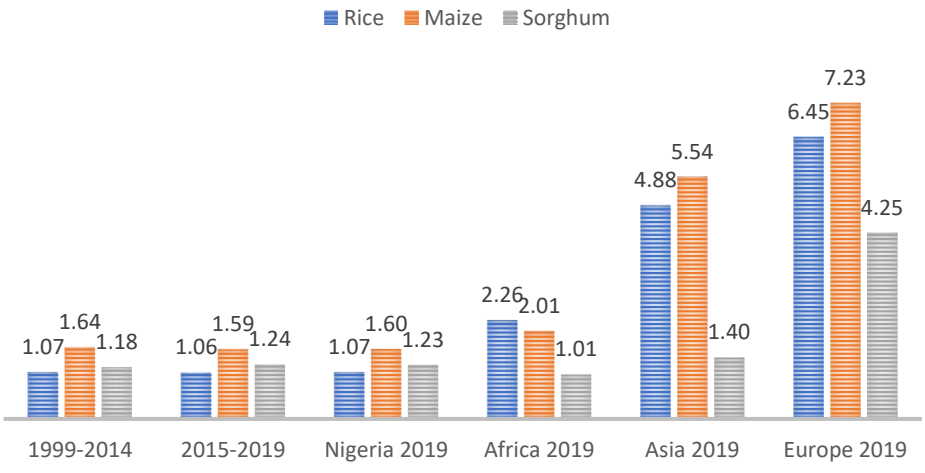

Fig. 5: Comparison of Average yields in MT/Ha for Rice, Maize and Sorghum for the period (1999-2014), (2015-2019) and selected 2019 International Averages

CONCLUSION

Findings of this study indicated that more area was put under rice and maize cultivation and more rice and maize were produced locally in the 2015-2019 period, with no significant difference in mean quantity of domestic sorghum produced and area under sorghum cultivation between the two periods (1999-2014 and 2015-2019). More rice was imported during the pre-Buhari period. Though more area was put under rice and maize cultivation and more rice and maize were produced locally in the Buhari period, average yield for all 3 crops in Nigeria remain lower than what is obtained from other parts of the world indicating that the increase observed in rice and maize output during the Buhari period in Nigeria is more a function of hectarage expansion than of increased productivity. The findings of this study reveal Nigeria's great potential to increase rice, maize and sorghum output through increased productivity, which is achievable through intensification, the technologies of which are available and affordable in Nigeria.

Based on the findings of this study, it is recommended that literate farmers' access to extension publications such as bulletins, guides and leaflets should be enhanced. This would expose them to improved agronomic practices capable of leading to higher crop yield. With the increasing usage of mobile telephony observed in the study area, e-extension which utilizes the fruits of ICT in agricultural extension could be deployed to enhance literate farmers' access to these extension publications via the internet; Farmers' access to better and improved seeds should be accelerated. This would lead to higher crop yield. Adoption of improved technologies should be supported with access to formal credit. Therefore, farmers' access to formal agricultural credit should be improved. This would accelerate the adoption of improved agricultural production technologies and practices capable of leading to higher crop yield.

REFERENCES

Abdullahi, A. (1981). The problems and prospects of the green revolution for agricultural and rural development of Nigeria: Technical and environmental perspectives. *In*: Abalu, G.O.I., Abdullahi, Y. and Imam. A. M. (Eds). *The Green Revolution in Nigeria?* Proceedings of a National Seminar organised by the Department of Agricultural Economics and Rural Sociology, Ahmadu Bello University and held in Zaria, Nigeria from September 21st – 24th. pp 1-11

Adebayo O. O. and Ibraheem O. (2015). The current status of cereal (maize, rice and sorghum) crops cultivation in Africa: Need for integration of advances in transgenic for sustainable crop production. *International Journal of Agricultural Policy and Research* 3 (3): 133-145

Adedeji, I. A., Tiku, N. E., Sanusi, S. O and Waziri-Ugwu, P. R. (2017). Trend analysis of crop productivity growth in Nigeria (1961-2014) *Agroeconomia Croatica* 7 (1): 14-24

Alamu, J. F. (1981). Small-Scale Mechanised Farming: The only Hope of the Current Green Revolution in Nigeria. In Abalu, G.O.I., Abdullahi, Y. and Imam. A. M. (Eds). *The Green Revolution in Nigeria?* Proceedings of a National Seminar organised by the Department of Agricultural Economics and Rural Sociology, Ahmadu Bello University and held in Zaria, Nigeria from September 21st – 24th. pp 132-139

Ammani, A. A. (2013). Impact of Market-Determined Exchange Rates on Rice Production and Import in Nigeria. *International Journal of Food and Agricultural Economics,* 1 (2): 85-98.

Asiabaka, C. C. and Owens, M. (2002). Determinants of Adoptive Behaviours of Rural Farmers in Nigeria. Proceedings of the 18th AIAEE Annual Conference Durban, South Africa.

CBN (2015): *Anchor Borrowers' Programme ABP: A Financing Model for Small Holder Farmers*. Abuja: CBN

CBN (2016): *Anchor Borrowers' Programme Guidelines*. Abuja: CBN

Chiang, A.C. and Wainwright, K. (2005). *Fundamental Methods of Mathematical Economics*. 4 th Edition. Boston: McGraw-Hill

Federal Ministry of Agriculture and Rural Development FMARD (2011). *Agricultural Transformation Agenda: We Will Grow Nigeria's Agricultural Sector (Draft).* Abuja: FMARD.

Gujarati, D. N. (2003). *Basic Econometrics*. 4th edn. New Delhi: Tata McGraw-Hill.

Gujarati, D. N. and Porter, D. C. (2009). *Basic Econometrics*. 5th Edition. Boston: McGraw-Hill

Ilugbuhi, T. O. (1968). *Nigeria's Experience in Domestic Financing of Development*. Research Memo Series. Zaria: Institute of Administration in Nigeria. *Journal of Economics and Rural Development* 18 (1): 36-45

Macauley, H. (2015). *Cereal Crops: Rice, Maize, Millet, Sorghum, Wheat*. A background paper prepared for Feeding Africa Conference, held at Abdou Diuof Conference Centre, Dakar Senegal, 21st -23rd October 2015. Retrieved from https://www.afdb.org/fileadmin/uploads/afdb/Documents/Events/DakAgri2015/Cereal_Crops-_Rice_Maize_Millet_Sorghum_Wheat.pdf

Maikasuwa, M. A. and Ala, A. L. (2013*).* Trend Analysis of Area and Productivity of Sorghum in Sokoto State, Nigeria, 1993-2012. *European Scientific Journal* 9 (16): 69-75

Oni, O.A., E. Nkonya, J. Pender, D. Phillips and E. Kato (2018). Analyzing Drivers of Food Crop Productivity

Osaghae, E.E. (1995). *Structural Adjustment and Ethnicity in Nigeria*. Uppsala: Nordic Africa Institute

Osuntogun, A., Edordu, C.C. and Oramah, B. O. (1997). *Potentials for diversifying Nigeria's non-oil exports to non-traditional markets*. AERC Research Paper 68. Nairobi: African Economic Research Consortium

Reynolds, L. C. (1966). *Peasant Agriculture and Economic Growth in Nigeria*. The Economic Growth Center, Yale: Yale University

Schultz TW (1976). The First Leonard Elmhirst Memorial Lecture: On Economics, Agriculture, and the Political Economy. In Dams, T. and K. E. Hunt (Eds) *Decision-Making and Agriculture*. Papers and Reports of the Sixteenth International Conference of Agricultural Economists, held in Nairobi Kenya 26th July-4th August

Sekumade, A. B. (2009). The effects of petroleum dependency on agricultural trade in Nigeria: An error correlation modelling (ECM) approach. *Scientific Research and Essay*, 4 (11): 1385-1391

Walkenhorst, P. (2007). *Distortions to Agricultural Incentives in Nigeria*. Agricultural Distortions Working Paper 37. Washington DC: World Bank

Appendix Table: Data Used in this study

Year	Domestic Maize Production (MT)	Maize Hectarage (Ha)	Domestic Rice Production (MT)	Rice Imports (MT)	Rice Hectarage (Ha)	Domestic Sorghum Production (MT)	Sorghum Hectarage (Ha)
1999	5476000	3423000	2185759	812452	2191000	7520000	6678000
2000	4107000	3159000	2199766	785741	2199000	7711000	6885000
2001	4596000	3283000	1835584	1770073	2117000	7081000	6437000
2002	4890000	3282000	1952976	1236414	2185000	7534000	6849000
2003	5203000	3469000	2078372	1600701	2210000	8016000	6935000
2004	5567000	3479000	2223778	1396692	2348000	8578000	7031000
2005	5957000	3589000	2379189	1174071	2494000	9178000	7284000
2006	7100000	3905000	2696014	974647	2725000	9866000	7308000
2007	6724000	3944000	2125062	1215758	2451000	9058000	7812000
2008	7525000	3845000	2787393	970787	2382000	9318000	7617000
2009	7358260	3350560	2365349	1160671	1836880	5279170	4736830
2010	7676850	4149310	2983171	1882759	2432630	7140970	4960130
2011	8878456	5456540	3076614	2187419	2269410	5690145	4661867
2012	8694900	5751300	3623764	2455202	2863815	5837106	5099975
2013	8422670	5762700	3217161	2187370	2931400	5300270	5449200
2014	10058968	6346551	4003888	1637415	3081923	6883294	5702160
2015	10562050	6771189	4172904	45000	3121562	7005025	5899134
2016	11547980	7312078	5045221	845000	4935500	7556076	5472010
2017	10420000	6540000	5220022	846772	5627700	6939000	5820000
2018	11000000	6816126	5604801	847612	5873615	6800000	5596102
2019	11000000	6857528	5626145	845047	5281286	6665000	5397024

Source: FAOSTAT http://www.fao.org/faostat/en/#data/TP