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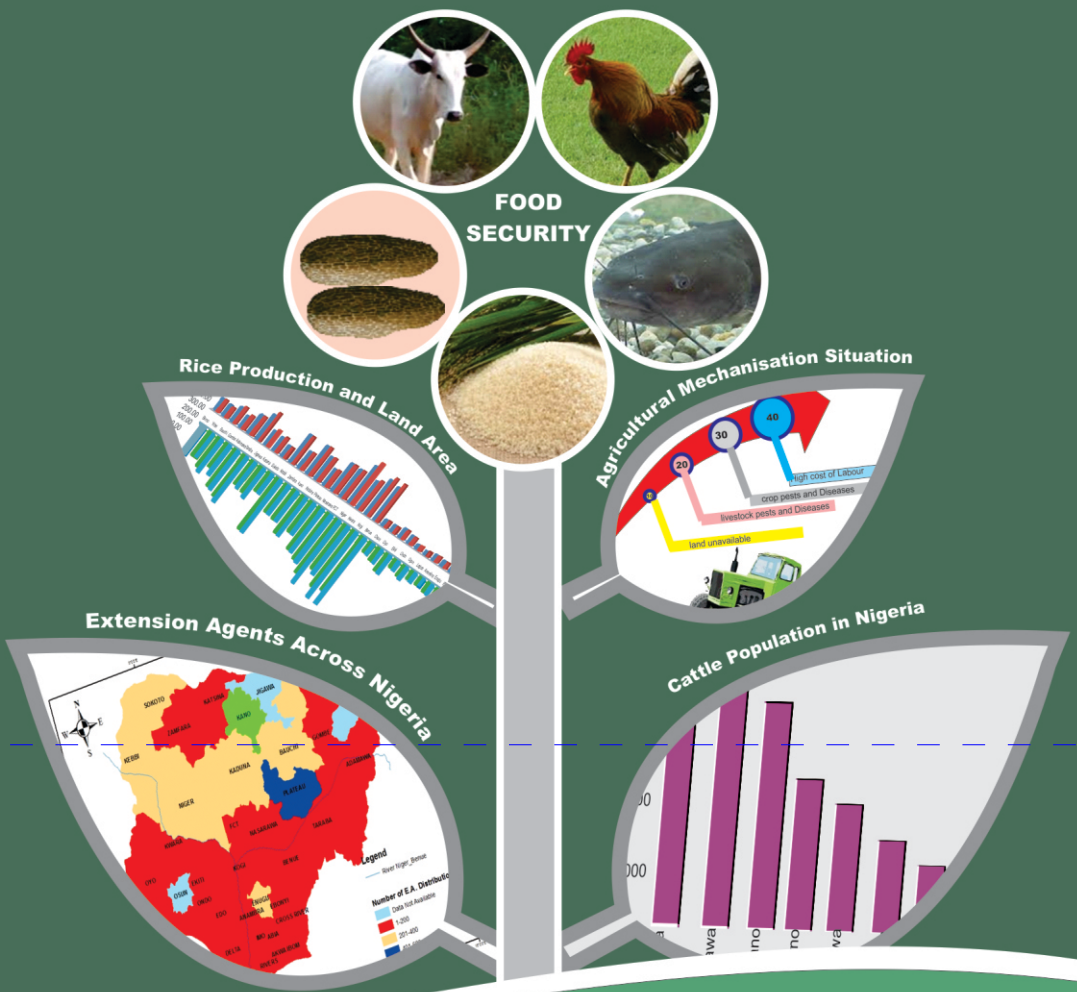
AGRICULTURAL PERFORMANCE SURVEY OF 2018 WET SEASON IN NIGERIA



NATIONAL REPORT

NAERLS and FDAE

December, 2018

AGRICULTURAL PERFORMANCE SURVEY OF 2018 WET SEASON IN NIGERIA

ISSN: 2408-7459

National Agricultural Extension and Research Liaison Services (NAERLS)

NATIONAL REPORT

Federal Ministry of Agriculture and Rural Development
Ahmadu Bello University, Zaria
www.naerls.gov.ng

Federal Department of Agricultural Extension (FDAE) &
Planning and Policy Coordination Department (P&PCD),
Federal Ministry of Agriculture and Rural Development (FMARD),
Garki, Abuja

Agricultural Performance Survey of 2018 Wet Season in Nigeria

National Agricultural Extension and Research Liaison Services,

Ahmadu Bello University

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Zaria, Nigeria

www.naerls.gov.ng

Citation:

NAERLS, FDAE and P&PCD (2018). Agricultural Performance Survey Report of 2018 Wet Season in Nigeria, NAERLS, Ahmadu Bello University Zaria Press. ISBN: 2408-7459; 310p

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National Technical Committee on Agricultural Statistics

Collaborators: PPCD, NBS, FDAE, FDA, FDFA, FDAPHS, IAR, NAPRI, NIMET, NIFOR, IAR&T, NIHORT, GIZ, FAO, WFP and ADPs

December 2018

PREFACE

Assessment of agricultural production in Nigeria is a core mandate activity of NAERLS. The 2018 wet season Agricultural Performance Survey was conducted from 2nd to 9th September. The fieldwork was done in collaboration with the following organizations: 36 State and FCT Agricultural Development Programmes (ADPs); Federal Department of Agricultura1 Extension (FDAE), FMARD;States Mi nistries of Agriculture in 36 states and FCT; National Bureau of Statistics (NBS); Nigerian Meteorological Agency (NIMET); Planning and Policy Coordination Department (PPCD), FMARD;

Federal Department of Fisheries and Aquaculture (FDFA), FMARD; Federal Department of Agriculture (FDA), FMARD; Federal Department of Animal Production and Husbandry Services (FDAHS), FMARD; Department of Monitoring and Evaluation, Federal Ministry of Budget and National Planning (FMBNP); Deutsche Gesellschaft Fur Internationale Zusammenarbeit (GIZ) GmbH- Nigeria; World Food Programme, Abuja; Institute of Agricultura1 Research (IAR), ABU, Zaria; Institute for Agricultural Research and Training (IAR&T), OAU, Ibadan; National Animal Production Research Institute (NAPRI), ABU, Zaria; National Institute for Horticultural Research (NIHORT), Ibadan; National Institute for Oil Palm Research (NIFOR), Benin- City; and Nigerian Hydrological Services Agency (NIHSA), Abuja.

Nineteen teams visited 148 LGAs in 36 states and the Federal Capital Territory (FCT). A monitoring team of six persons, one per geo-political zone monitored the survey. A special team further visited six selected states (Jigawa, Kebbi, Adamawa, Kogi, Niger and Delta) to assess the impact of floods on food production due to widespread incidence of floods after the fieldwork.

The survey report provides an insight into annual cropping season with emphasis on food production, crop pests and disease situation, market situation, commodity prices, agro-meteorological conditions, and agropastoral conditions across the country. The survey also provides insights on performance of policy thrust as well as progress made on Special Interventions and Programmes on Agriculture by the Federal and states Governments. The outputs of the evaluation exercise were put together into an executive summary and national report, which have been circulated to all states, relevant agencies and other stakeholders. The report provides findings and data that can guide policymaking and focused research in Agriculture.

In an effort to improve the quality and reliability of the data generation, NAERLS continues to expand its range of partners for inclusive data capture and analysis. The Institute works on developing the capacity of key partners in data collection and management.

Sincere appreciation goes to farmers and farmers' groups, officials of the State Ministries of Agriculture, State Agricultural Development Projects (ADPs), National Agricultural Research Institutes and Agencies, State and Local Government Officials across the country who contributed to making this work a success. We are highly indebted to the Honorable Minister of Agriculture and Rural Development, Chief Audu Ogbeh, OFR and the Minister of State, Senator Dr. Heineken Lokpobiri for their untiring support. In the same vein, we are sincerely appreciative of the NAERLS Board Chairman, the ever-supportive Vice Chancellor of Ahmadu Bello University Zaria, Prof. Ibrahim Garba.

As usual, we welcome comments and suggestions for the improvement of the survey.

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ACRONYMS

ADP	-	Agricultural Development Programmes
AfDB	-	Africa Development Bank
APS	-	Agricultural Performance Survey
APSR	-	Agricultural Performance Survey Report
ASC	-	Agro Service Centers
BES	-	Block Extension Agent
CAYS	-	Crop, Area and Yield Survey
CBARD	-	Community Based Agricultural and Rural Development
EA	-	Extension Agent
FAO	-	Food and Agriculture Oganization of the United Nations
FDA	-	Federal Department of Agriculture
FDFA	-	Federal Department of Fisheries and Aquaculture
FDAPHS	-	Federal Department of Animal Production and Husbandry Services
FNT	-	Forthnightly Training
IAR	-	Institute for Agricultural Research
IAR&T	-	Institute of Agricultural Research and Training
LCRI	-	Lake Chad Research Institute
LGA	-	Local Government Area
MANR	-	Ministry of Agriculture and Natural Resources
MOP	-	Muriate of Potash
MTP	-	Management Training Plot
MTRMs	-	Monthly Technology Review Meetings
NA	-	Not Available
NAERLS	-	National Agricultural Extension and Research Liaison Services
NASC	-	National Agricultural Seeds Council
NBS	-	National Bureau of Statistics
NCRI	-	National Cereals Research Institute
NFRA	-	National Food Reserve Agency
NIFOR	-	National Institute for Oil Palm Research
NIMET	-	Nigerian Meteorological Agency
NRCRI	-	National Root Crops Research Institute
NPAFS	-	National Programme on Agriculture and Food Security
NPFS	-	National Programme on Food Security
NSPFS	-	National Special Programme for Food Security
OFAR	-	On Farm Adaptive Research
PM	-	Programme Manager
PPCD	-	Planning and Policy Coordination Department
RID	-	Rural Insfrastructure Department
RTEP	-	Root and Tuber Expansion Programme
SPAT	-	Small Plot Adaptation Technique
SSP	-	Single Super Phosphate
T & V	-	Training and Visits
ZEO	-	Zonal Extension Officer

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EXECUTIVE SUMMARY

The 2018 wet season agricultural performance survey was conducted between 2nd and 9th September 2018. The survey was carried out by the NAERLS in collaboration with the following organizations: 36 State and FCT Agricultural Development Programme (ADPs); States Ministries of Agriculture in 36 states and FCT; Federal Department of Agricultural Extension (FDAE), FMARD; National Bureau of Statistics (NBS); Nigeria Meteorological Agency (NIMET); Planning, Policy and Coordination Department (PPCD), FMARD; Federal Department of Fisheries and Aquaculture (FDFA), FMARD; Federal Department of Agriculture (FDA), FMARD; Federal Department of animal Production and Husbandry Services (FDAHS), FMARD; Department of Monitoring and Evaluation, Federal Ministry of Budget and National Planning (FMBNP); Deutsche Gesellschaft Fur Internationale Zusammenarbeit (GIZ) GmbH- Nigeria; World Food Programme (WFP), Abuja; Institute for Agricultural Research (IAR), ABU, Zaria; Institute of Agricultural Research and Training (IAR&T), OAU, Ibadan; National Animal Production Research Institute (NAPRI), ABU, Zaria; Nigerian Institute for Horticultural Research (NIHORT), Ibadan; Nigerian Institute for Oil Palm Research (NIFOR), Benin- City; and Nigerian Hydrological Services Agency (NIHSA), Abuja.

A participatory approach to the survey combining qualitative and quantitative techniques were employed in data generation. These included consultations and dialogues with stakeholders, questionnaire survey, Participatory Rural Appraisal (PRA) and interviews. Nineteen multidisciplinary teams of three scientists each, carried out the exercise across the 36 states and the Federal Capital Territory (FCT). In every state, two ADP zones were visited. In each zone, two LGAs were selected and one community selected per LGA. In each community, five farmers were interviewed and focus group discussions held. Extensive discussions were held with the ADPs staff, ministries' officials and staff of other relevant agencies. Final wrap-up sessions to validate the data generated and findings were held at the end of each state visit with officials of the State ADP and Ministry of Agriculture. Primary and secondary data were collected and analysed using the Statistical Package for the Social Sciences (SPSS v23). Appropriate statistical procedures for description (frequencies, percent and means) were used. Relevant indicator was computed and summarized using validated methods. Forecasts of 2018 crop yields involved the use of adjusted 2017 land area and crop output estimates as base figures. This was applied in conjunction with reports from ADPs, inputs from crop models such as SARRA-H, commodity and strategic development initiative reports.A summary of the findings of the 2018 survey is presented below:

Rainfall Situation

- The total amount of rainfall experienced in 2018 was substantialy higher than 2017. September was the peak month that rainfall was experienced in 2018. The cumulative annual rainfall analysis as reported by NIMET showed that a vast portion of the country recorded between 1,400-2,400mm of rain. The number of rain days ranged between 46 and 199 days in 2018. Most parts of the nation recorded normal to above normal rainfall (based on the 30 years average).
- Heavy rains that resulted into floods were experienced in 2018 similar to the 2012 occurrence. More than 20 states reported floods cases with varied level of severity that affected crops, livestock and farmhouses. NIMET reports high one-day rainfall values in excess of 100mm to have been observed over many cities across the country. Some of the agricultural commodities affected were rice, maize, millet, sorghum, vegetables, cassava, cowpea, yam, sugarcane, poultry and aquaculture. There were also occurrences of dry spell between June and July in some parts of the country.

Use of Improved Farm Inputs

- Farm inputs (seed and seedlings) were reported to have been procured and distributed by less than half the states nationwide. Generally, the quantities procured and distributed were inadequate and expensive.

- The quantities and cost of planting materials, at majority of the states were inadequate, very expensive and out of reach of the common farmer.

Use of Agro-Chemicals and Farm Equipment

- Very limited quantities of agro-chemicals and limited volume of farm equipment were procured and distributed by states. Low use of agro-chemicals by farmers was reported to be due to their high cost.
- Farmers were unable to access such improved equipment due to their non-availability and high cost.

Use of Livestock andFisheries Inputs

- Most livestock and fisheries inputs such as feeds, drugs and vaccines were generally available and obtained through the open market.

Crop Pest, Diseases and Natural Hazards

- Wet season agricultural production in Nigeria is always faced with problems of pests, diseases and sometimes natural hazards as a result of the farmer's inability to mitigate the vagaries of weather and climate that favour disaster and spread of diseases. The main disaster experienced by farmers were floods across almost all the States in the country with more severe impact in States that are along the Niger, Benue and Gongola rivers and their tributaries. These floods destroyed farm lands, drowned humans and farm animals.
- Generally, crops pests and diseases are mainly those that are recurrent over the years within the country.
- The effect of dry spell especially, that which occurred at the beginning of the planting season in Northern parts of the country was exacerbated by army worm infestation. Other pests and diseases infestation that occurred during the wet season of 2018 differed with crop species and location. Also, there were differences in the severity of damages caused and the management practices employed.

Agricultural Mechanization

- Generally, tractor availability from Government sources reflected a decline in the numbers of functional tractors and an increase in the numbers of non-functional tractors.
- The tractor availability by the private sector is becoming more pronounced. The Tractor Owners and Hiring Facilities Association of Nigeria (TOHFAN) is currently driving the private sector tractor hiring services in Nigeria. The association is collaborating with international tractor manufacturers like John Deere, Mahindra, Tata, New Holland among others.

Cost of Production of Major Crops Per Hectare

- The general outlook of production costs per hectare of major crops across the nation showed slight to significant increases over 2017.

Grain Reserves

- Grains storage were generally reported to be through traditional and modern storage structures which are rhumbu, barns and silos.

Food Commodity Prices

- Comparison of prices were made between January and July 2017 and the corresponding periods in 2018. As in previous years, general increases in prices of most commodities were recorded across the country due to the general rise in prices in the economy.

Land Area and Crop Production Estimate for 2018

- Rice, maize, sorghum, millets, Yam and Cassava remained the major staple foods in the country. Land Area and Crop Production Estimates increased 2018.

Livestock Production, Pests and Disesases in Nigeria

- Livestock populations were generally estimated to increase in 2018.
- Contagious Bovine Pleuropneumonia (CBPP) was reported in six (6) Northen States. Foot and mouth disease was also reported among cattle populations in 10 States.

Fisheries Production, Pests and Disease Situation

- Data on fisheries production for the year 2018 were generally not available across the states, with only four (4) states providing information both on aquaculture and captured fisheries respectively. Increase in aquaculture production were reported in 2018 compared to 2017. Generally, diseases such as broken skulls, swollen belly, fin rot, white patches on the skin and barbels, and bruised mouth were reported.

ADP Funding Situation

- State Governments have been the major source of fund for the ADPs. Most States appropriated less than 20% capital budget. Generally, there was decline in funding compared to previous years.

Performance Indicators of ADPs

- Farm families numbers ranged from 1,620,000 in Kano state to 95,465 farm families in Bayelsa
- There was generally a decrease in the number of VEAs from 2017 to 2018 across the nation's ADPs. The federal Government intervention through the N-Power (Agro) has however assisted in boosting the number of frontline extension agents across the country. Generally, VEA's visit to farmers declined from 2017 to 2018.

Technology Dissemination Strategies (OFAR, MTP)

- Very poor linkages between extension and research as most states were observed could not hold MTRM and FNT. Twenty-four states reported a total number of 5648 extension agents.

Challenges of ADPs in Nigeria

- Major challenges hindering efficient performance of the ADPs include poor funding, low staffing, and inadequate transportation/utility vehicle affecting virtually all states. Others include inadequate extension material, high EA:farmer ratio, insufficient allowances, inadequate training, poor media services.

General Constraints to Agricultural Production

The general constraints or challenges to agricultural production in 2018 include the following:

- Weather-related Challenges to Agricultural activities: Severe flooding was experienced in 27 states, across all the zones of the country. Sixteen (16) states recorded prolonged dry spells, with the highest prevalence in the northwest and northeast.
- Farm Inputs availability and accessibility: State Government-facilitated distribution of inputs were largely unavailable in many states for the year 2018. Limited quantities of agrochemicals and planting materials were provided by some states.
- Production-related Challenges (land, labour and diseases): The greatest challenge to agricultural production reported by farmers in 2018 was high cost of labour (both manual and mechanical). Generally, there was widespread infestation of army worms and stem borers on maize, beetle attack on yam as well as foot and mouth disease on cattle.
- Agricultural Mechanization: Majority of farmers were unable to access tractor services due to high cost of hiring services.

- Extension Support Activities: Some critical challenges encountered by ADPs were inadequate capacity building for their staff, inadequate staffing and non-payment of counterpart fund. Over 50% of the ADPs had zero fund release for the year 2018. There was also the challenge of encroachment into and duplication of ADP's activities in the states through creation of parallel agencies.
- Agricultural Broadcast: All 37 ADPs were not able to air agricultural programmes due to high cost of airtime and the lack of equipment. Farmers have challenges with both accessing the signals and the time of broadcast.
- E-Extension: Most ADP staff are highly constrained in the use of e-extension channels. The major constraints faced by ADPs' are: high cost of data (86.5%), lack of support infrastructures (81.1%) and poor network connectivity (72.9%).
- Security-related Challenges: Agricultural activities were heavily compromised by the persistent crisis between herdsmen and farmers, as well as cattle rustling. Furthermore, farmers reported communal clashes, insurgency/militancy and kidnapping were constraining factors to agricultural activities in the year.

1.0 INTRODUCTION

The 2018 wet season agricultural performance survey was conducted between Sept. 2nd-9th 2018. The survey is a major annual activity of the National Agricultural Extension and Research Liaison Services (NAERLS) and involved field problems identification, generation of agricultural production, processing and marketing data etc.

The objectives of the survey were to:

- Evaluate the performance of crops and livestock during the season and estimate outputs;
- Generate production forecasts for major agricultural activities during the 2018 Wet Season.
- Identify the constraints to increased agricultural productivity;
- Identify conditions affecting effective technology transfer and advisory services within the season; and
- Provide feedback on field situation and farmers' problems for improved research and policy performance.

The survey was carried out by the NAERLS in collaboration with the following organizations: 36 State and FCT Agricultural Development Programmes (ADPs); States Ministries of Agriculture in 36 states and FCT; Federal Department of Agricultura1 Extension (FDAE), FMARD; National Bureau of Statistics (NBS); Nigeria Meteorological Agency (NIMET); Planning and Policy Coordination Department (PPCD), FMARD; Federal Department of Fisheries and Aquaculture (FDFA), FMARD; Federal Department of Agriculture (FDA), FMARD; Federal Department of Animal Production and Husbandry Services (FDAHS), FMARD; Department of Monitoring and Evaluation, Federal Ministry of Budget and National Planning FMBNP; Deutsche Gesellschaft Fur Internationale Zusammenarbeit (GIZ) GmbH- Nigeria; World Food Programme, (WFP) Abuja; Institute for Agricultura1 Research (IAR), ABU, Zaria; Institute of Agricultural Research and Training (IAR&T), OAU, Ibadan; National Animal Production Research Institute (NAPRI), ABU, Zaria; Nigerian Institute for Horticultural Research (NIHORT), Ibadan; Nigerian Institute for Oil Palm Research (NIFOR), Benin-City; and Nigerian Hydrological Services Agency (NIHSA), Abuja.

In the continual effort of the NAERLS to qualitatively strengthen output of the survey, scientists' capacity to elicit quality information were strengthened. An open software was used to retrieve and manage electronic data. This also included a continuous process of identifying strategic partners for the development of synergy in data collection. The NAERLS will work with partners to strengthen the integration and utilization of Remote Sensing and GIS Techniques in it's sampling methodology.

2.0 METHODOLOGY

A participatory approach to the survey combining qualitative and quantitative techniques were employed in data generation. These included consultations and dialogues with stakeholders, questionnaire survey, Participatory Rural Appraisal (PRA) and interviews. Nineteen (19) multidisciplinary teams of three scientists each, making a total of 56 scientists, carried out the exercise across the 36 states and the Federal Capital Territory (FCT). In every state, two ADP zones were selected for visit. In each zone, two LGAs were selected and one community selected per LGA. Five farmers were randomly selected from each community using systematic random sampling for interview and focus group discussions. The APS sample size was designed to be representative at the state agroecological levels and covered only small-scale farmers. Data collection was done using computer assisted personal interviewing devices (CAPI). The activities of the teams were monitored at two levels within each zone by the APS Coordinator and six supervisors who monitored team movement and activities. Extensive discussions were held with the ADPs staff, ministries' officials and staffs of other relevant agencies. Final wrap-up sessions to validate the data generated and findings were held at the end of each state visit with officials of the State ADP and Ministry of Agriculture.

A special team further visited six selected states (Jigawa, Kebbi, Adamawa, Kogi, Niger and Delta) to assess the impact of floods on food production due to widespread incidence of floods after the fieldwork. Checklist was used for the collection of information from agencies in the state including Agricultural Development Projects (ADP), State Emergency Management Agency (SEMA), National Emergency Management Agency (NEMA), State Ministry of Agriculture, Nigerian Meteorological Agency (NiMet), Nigerian Hydrological Services Agency (NIHSA). Field visits and group discussions were help at affected communities.

Data collected were analyzed using the Statistical Package for the Social Sciences (SPSS v23). Appropriate statistical procedures for description (frequencies, percent and means) were used. Each indicator was computed and summarized using validated methods. Appropriate statistical procedures for description were used. Relevant indicators were computed and summarized using validated methods. Forecasts of 2018 crop yields involved the use of adjusted 2017 land area and crop output estimates as base figures. This was applied in conjunction with reports from ADPS, inputs from crop models such as SARRA-H, commodity and strategic development initiative reports. The findings of the survey are presented below.

3.0 WEATHER SITUATION

3.1 Rainfall Situation

The amount of rainfall, rainy days and maximum temperature across the six geopolitical zones of the country are as presented in Figures 3.1-3.12 and Tables 3.1 – 3.12.

The total amount of rainfall experienced in 2018 was substantialy higher than 2017. September was the peak month that rainfall was experienced in 2018. The cumulative annual rainfall analysis as reported by NIMET showed that rainfall amount of 500- 1250mm was recorded in the entire northwest and northeast axis of the country. Most parts of the nation recorded normal to above normal rainfall (based on the 30 years average). Also, within this range are Bida, Benin, Awka, Asaba, Minna, Abuja and Shaki in the central and southwest axis respectively. Most parts of the south-south recorded the highest rainfall amount of between 2,400 and above 3000mm in Benin, Awka, Asaba, Warri, Owerri, Ikom, Port-Harcourt and Uyo. NIMET analysis shows that above normal number of rain days were recorded in August 2018 for most parts of the country. The number of rain days ranged between 46 in Nguru and 199 days in Warri for the year 2018. NIMET reports high one-day rainfall values in excess of 100mm to have been observed over many cities across the country.

Heavy rains that resulted into floods were experienced in 2018 similar to the 2012 occurrence. More than 20 states reported floods cases with varied level of severity that affected crops, livestock and farmhouses. Some of the agricultural commodities affected were rice, maize, millet, sorghum, vegetables, cassava, cowpea, yam, sugarcane, poultry and aquaculture. There were also occurrences of dry spell between June and July in some parts of the country. NIMET reports indicate that dry spell episodes (rainfall 0 to 0.3mm for at least 7 consecutive days) was experienced in some states. The dry spell episodes occurred at the critical period before flowering of most crops. Borno, Jigawa, Sokoto, Yobe and Zamfara states had double episodes in the month of June and July lasting 8 to 13 days. The dry spell episodes in Yobe state was longer, lasting 13 days in Nguru between June and July. The dry spell episode recorded in Kwara state lasted 16 days. NIMET further reports the dry spell episode in Katsina, Bauchi and Kano to be mild when compared to previous years. The effect of the dry spell in the affected states resulted in replanting, thereby adding to the cost of production for farmers.

Heavy rain that resulted into flood occurred in 2018 which was similar to what occurred in 2012. More than 20 states reported flood cases though the level of severity were not the same. It ranged from light to very severe which affected crops, livestock, farmhouses and whole settlements. Some of the agricultural products affected were rice, maize, millet, sorghum, vegetables, cassava, cowpea, yam, sugarcane, poultry and aquaculture. The states that were seriously affected are those along the shores of Niger and Benue rivers. Some of the affected states were Kogi, Niger, Kwara, Benue, Taraba, Adamawa, Jigawa, Kano, Katsina, Gombe, Kebbi, Anambra, Delta, Edo, Bayelsa etc. Data indicated that despite heavy rainfall that was experienced in 2018, there was still mild dry spell occurrences in

some parts of Nigeria which occurred between June and July. Some of the states affected were Zamfara, Kebbi, Yobe, Adamawa, Oyo, Taraba, Plateau, Gombe, Kogi, Ogun, Edo, Osun, Benue, Ekiti, Kwara, Akwa Ibom, Bauchi, Imo, Nasarawa and Kwara. Some of these affected states have earlier been predicted by NIMET to witness dry spell and flood occurrence.

North-East Zone

Total amount of rainfall in all the States in the zone in 2018 was more than 2017 with the exception of Maiduguri in Borno State where 2017 total rainfall was higher than 2018. First rainfall was experienced in the month of February in Borno and Yobe States and fully established by May in all the states in the zone in 2018. Bauchi experienced the highest amount of rainfall (1505.9mm) in the zone while Yobe had the least (518.5mm). Gombe, Adamawa and Yobe states witnessed dry spell in the month of June – July while there was flood occurrence in Adamawa and Gombe States. Maiduguri in Borno State recorded the highest (57) rainy days in 2018 while Yobe and Adamawa had the least (41).

North-West Zone

Rainfall started in April 2018 in most of States (Kaduna, Katsina, Kebbi and Sokoto) in the zone. Rain was fully established across the states in May with the highest (1527.1mm) in Kaduna and the least (683.8mm) in Sokoto. Zamfara and Kebbi States experienced dry spells and there was record of flood occurrence in Kebbi, Jigawa, Kano and Katsina states in the zone. Kaduna State had the highest (67) annual number of rainy days while the least (35) was recorded in Sokoto State in 2018.

North-Central Zone

Total amount of rainfall experienced in all the States in the zone in 2018 was more than what was experienced in 2017 except in FCT. In 2018, Kwara State had the highest (4772.5mm) amount of rainfall while FCT had the least (937.2mm). Rainfall was fully established in April 2018 in most states in the zone. However, it commenced in February in Benue, Plateau, Kogi and Niger though it was intermittent. Dry spell was experienced in the months of June that affected Kwara, Nasarawa, Taraba, Plateau and Kogi States. The zone also witnessed flood occurrence that affected Kogi, Niger, Kwara, Benue and Taraba States. Plateau State had the highest (82) annual rainy days while Taraba had the least (50) in 2018.

South-West Zone

Rainfall commenced early in January 2018 in most states of the zone. Nevertheless, it started in February in Ondo and Osun States. There was incidence of flooding occurrence in Lagos and Oyo States. Likewise, dry spell was experienced in Oyo, Osun, Ekiti and ogun States. Cumulative data indicated that Ogun State had the highest (83) number of rainy days while Oyo had the least (52) in 2018. Ijebu Ode in Ogun State recorded the highest (1791.3mm) total amount of rainfall in the zone in 2018 while Shaki in Oyo State recorded the least (886.3mm)

South-East Zone

Abia State had the highest (3344.6mm) total amount of rainfall while Anambra State recorded the least (1646.7mm). Rains started in February in most parts of the zone except Enugu state that witnessed first rainfall in March. Incidences of severe flooding were reported in Anambra state in June and July. Imo, Anambra and Abia States experienced dry spell in 2018. The highest (95) annual rainy days was recorded in Anambra while the least (63) was recorded in Abia State in 2018.

South-South Zone

Unlike 2017 when rainfall started across the zone in January, rain commenced in the zone in 2018 by February with intermittent dry spells until April when the rains were fully established. Incidence of flood occurrence was reported in Delta, Edo and Bayelsa states while dry spell was recorded in Akwa-

Ibom and Edo States. Cumulatively, Akwa-Ibom State had the highest (134) number of rainy days while the least (66) was recorded in Cross Rivers in 2018.

3.2 Total Monthly Maximum Temperature (^{o}C)

Mean values of maximum temperature ranged between 30.0 – 34^{o}C across the country ranged from 28- 37^{o}C in 2018. The pattern of occurrence was that in Northern part of the country, highest mean temperature occurred around April and lowest by January. In Southern part of the country, highest mean temperature was recorded around February and lowest in August.

North-East Zone

Maiduguri recorded annual mean maximum temperature of 36.1^{o}C while Bauchi recorded least (33.2^{o}C) in the zone in 2018. Mean maximum temperature recorded across the stations in the zone was almost the same for both years. However, the lowest monthly mean temperature of 31.1^{o}C was recorded in August for 2017 and 30.5^{o}C in January for 2018. The highest monthly mean temperature of 39.9^{o}C and 40.2^{o}C were both recorded in April for 2017 and 2018 respectively.

North-West Zone

Sokoto State recorded highest mean maximum temperature of 36.0^{o}C and 35.3^{o}C in 2017 and 2018 respectively whereas the lowest was recorded in 2017 (32.5^{o}C) and 2018 (31.9^{o}C) both in Kaduna. The mean maximum temperature in the North West was similar to that of the North-East. The lowest monthly temperature of 30.1^{o}C was recorded in August and 29.7^{o}C in January for 2017 and 2018 respectively whereas highest temperature of 40.2^{O}C and 40.0^{o}C both in April were recorded.

North-Central Zone

The lowest mean temperature was recorded in Jos as 27.9^{o}C and 27.6^{o}C for 2017 and 2018 respectively. The highest temperature was recorded in Bida, Niger State for 2017 (34.7^{o}C) and 2018 (34.0^{o}C). In addition, the lowest monthly temperature of 28.9^{o}C recorded in August and 29.8^{o}C in July for 2017 and 2018 respectively whereas highest temperature of 38.4^{O}C in March and 37.5^{o}C in April were recorded.

South-West Zone

The month of August recorded the lowest monthly temperature of 27.9^{o}C and 28.7^{o}C for 2017 and 2018 respectively whereas month of February was recorded for the highest temperature of 35.7^{O}C and 34.8^{o}C for 2017 and 2018 respectively. Abeokuta in Ogun state recorded the highest temperature of 34.2^{o}C and 33.6^{o}C for 2017 and 2018 respectively while Ado-Ekiti recorded lowest for 2017 (31.8^{o}C) and 2018 (31.5^{o}C).

South-East Zone

Temperature for the zone was similar to that of South West. The month of August recorded the lowest monthly temperature of 29.1^{o}C and 29.6^{o}C for 2017 and 2018 respectively while month of February was recorded for the highest temperature of 36.5^{O}C and 35.6^{o}C for 2017 and 2018 respectively. Ebonyi state recorded the highest temperature in both 2017 and 2018 as 34.2^{o}C and 33.5^{o}C respectively.

South-South Zone

South South temperature was like that of South West and South East pattern where August recorded the lowest monthly temperature of 28.6^{o}C and 29.4^{o}C for 2017 and 2018 respectively while month of February was recorded for the highest temperature of 35.4^{O}C and 34.2^{o}C for 2017 and 2018 respectively. Delta State had the highest temperature of 34.0^{o}C and 33.2^{o}C for 2017 and 2018 respectively whereas Eket in Akwa-Ibom recorded the least for both 2017 (28.7^{o}C) and 2018 (28.5^{o}C).

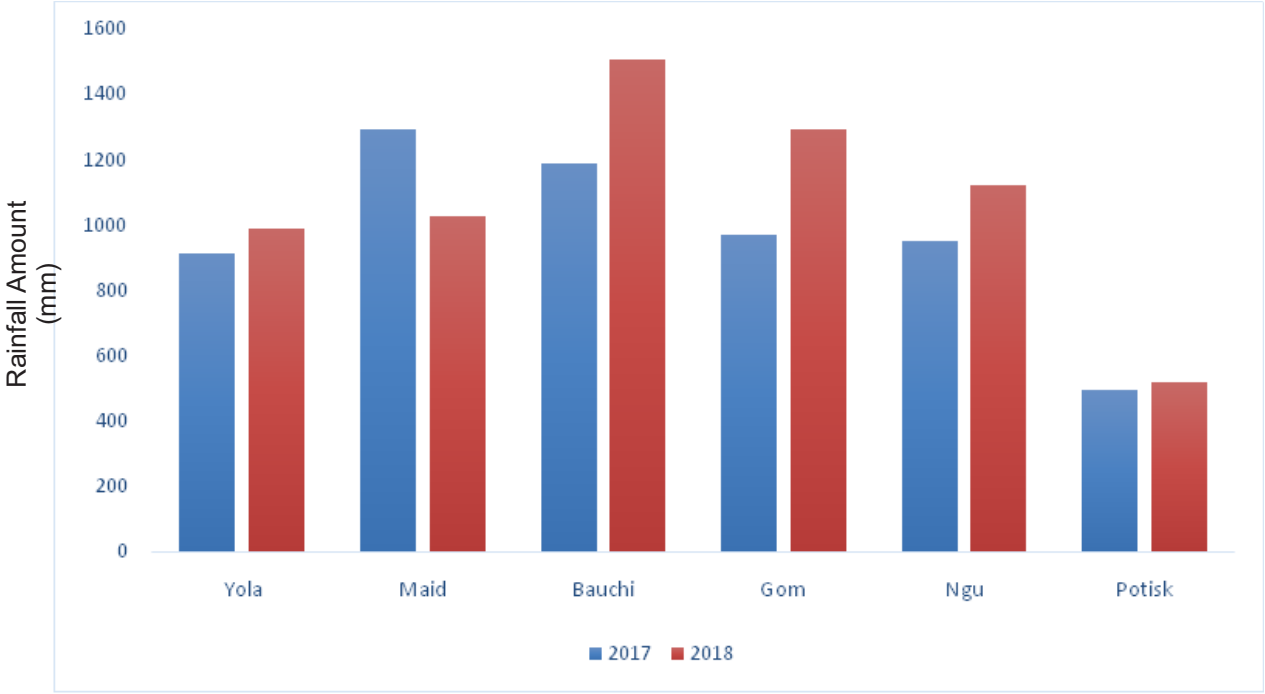


Figure 3.1:Total Annual Rainfall Amount in 2017 and 2018for North East Zone of Nigeria

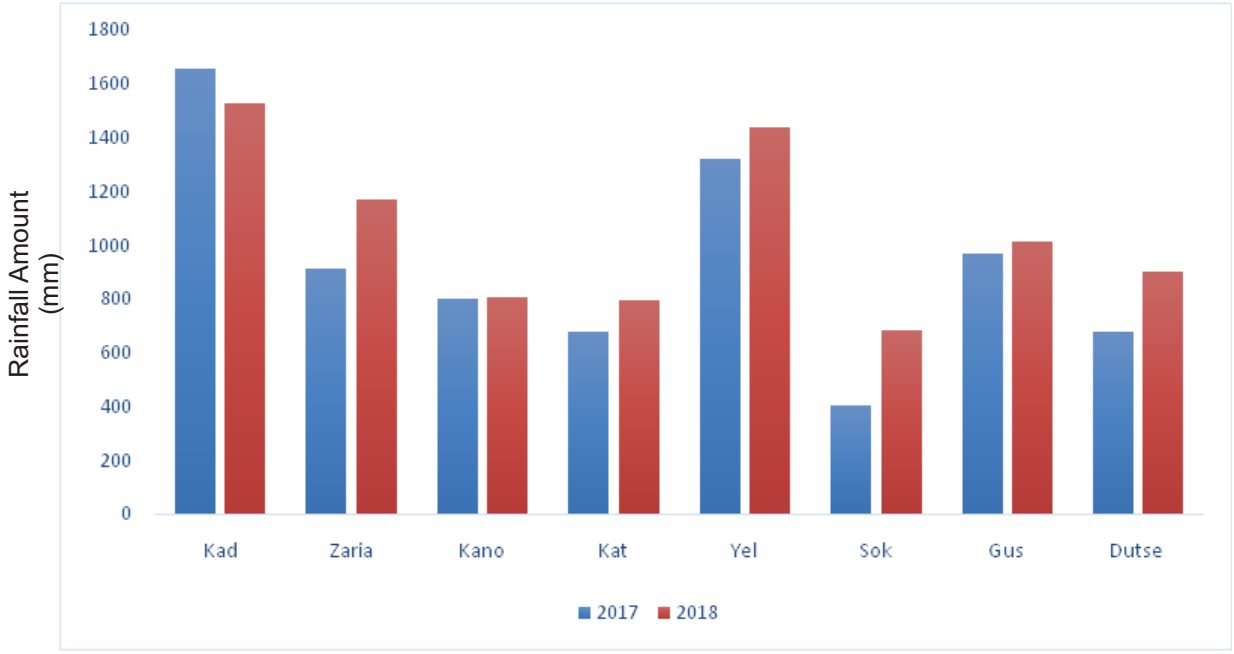


Figure 3.2:Total Annual Rainfall Amount in 2017 and 2018for North West Zone of Nigeria

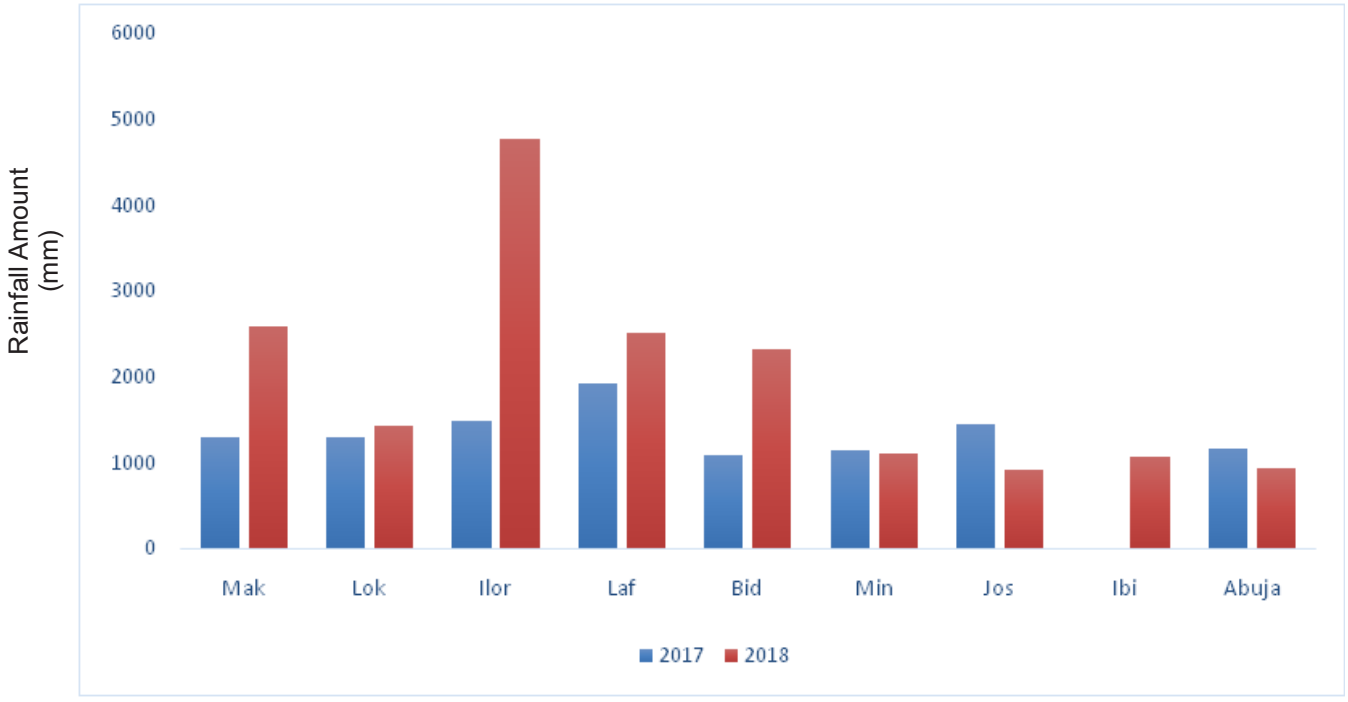


Figure 3.3:Total Annual Rainfall Amount in 2017 and 2018for North Central Zone of Nigeria

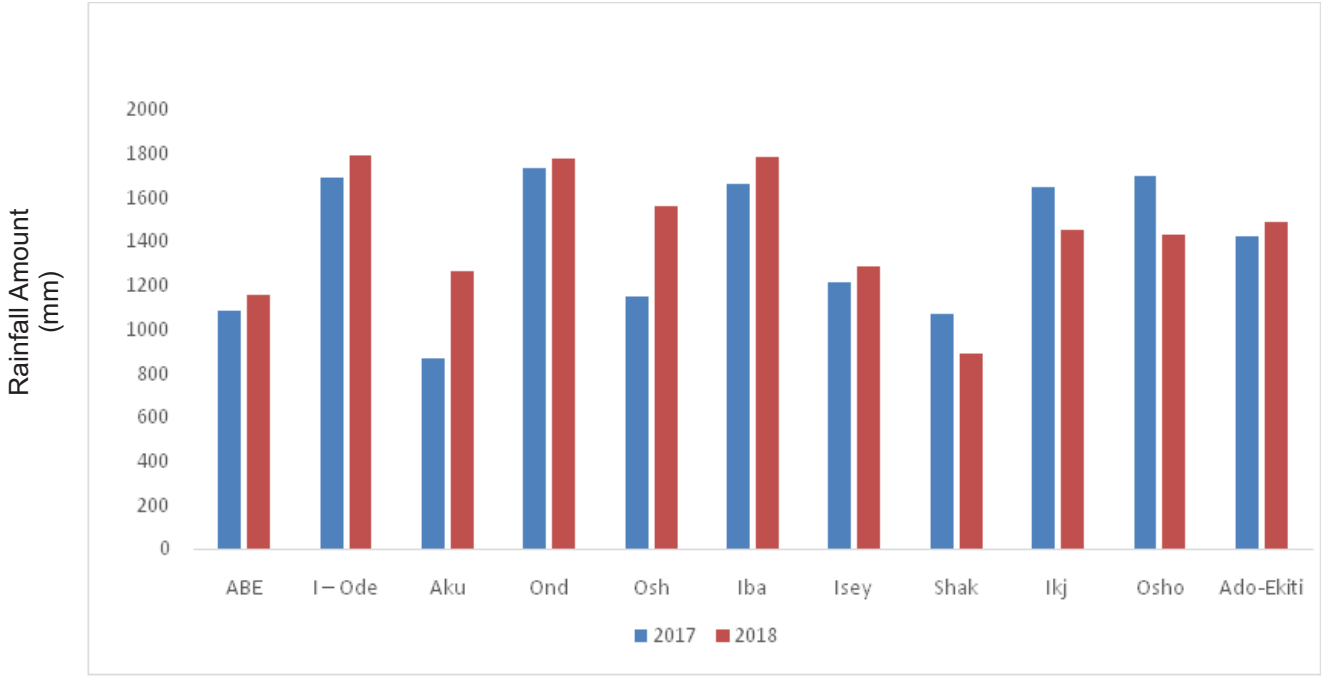


Figure 3.4:Total Annual Rainfall Amount in 2017 and 2018for South West Zone of Nigeria

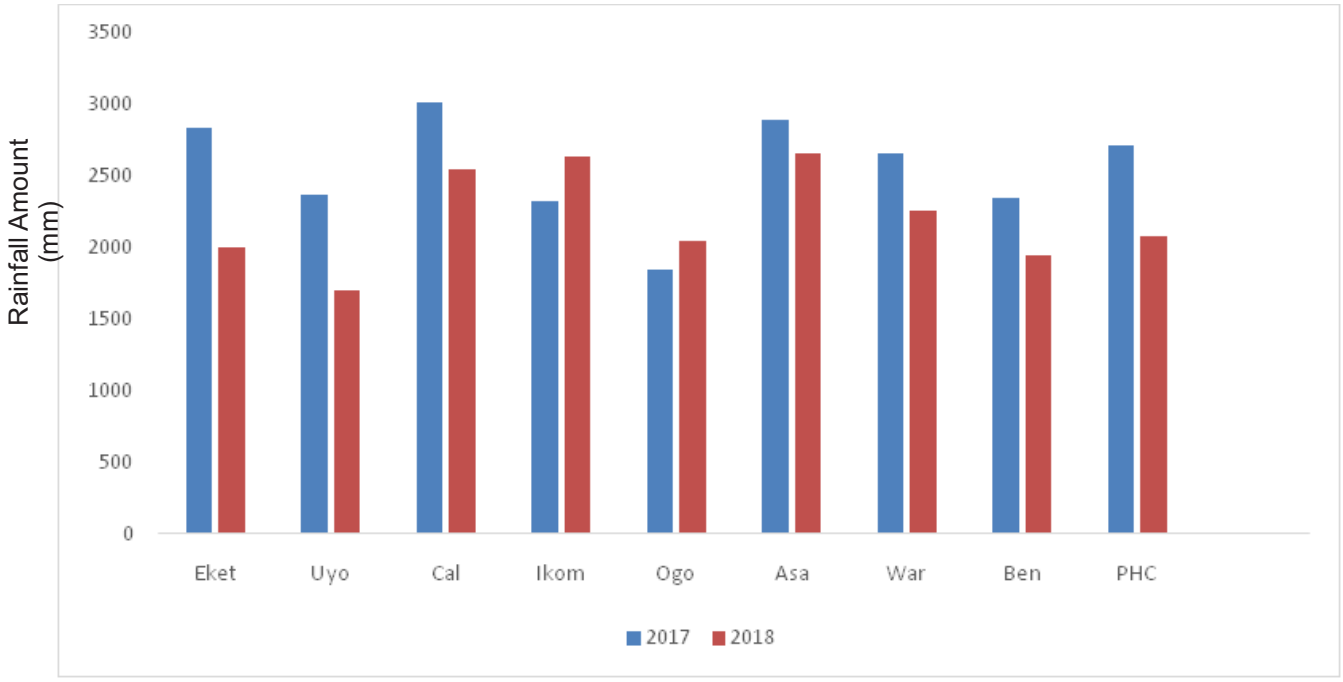


Figure 3.5:Total Annual Rainfall Amount in 2017 and 2018for South South Zone of Nigeria

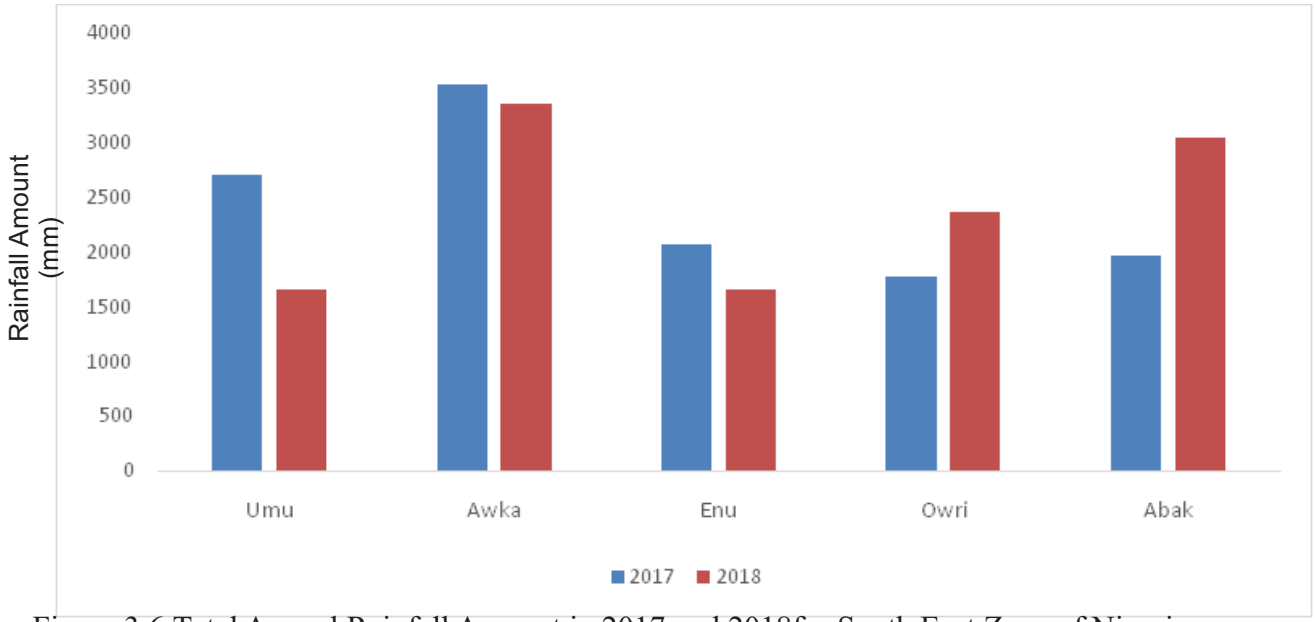


Figure 3.6:Total Annual Rainfall Amount in 2017 and 2018for South East Zone of Nigeria

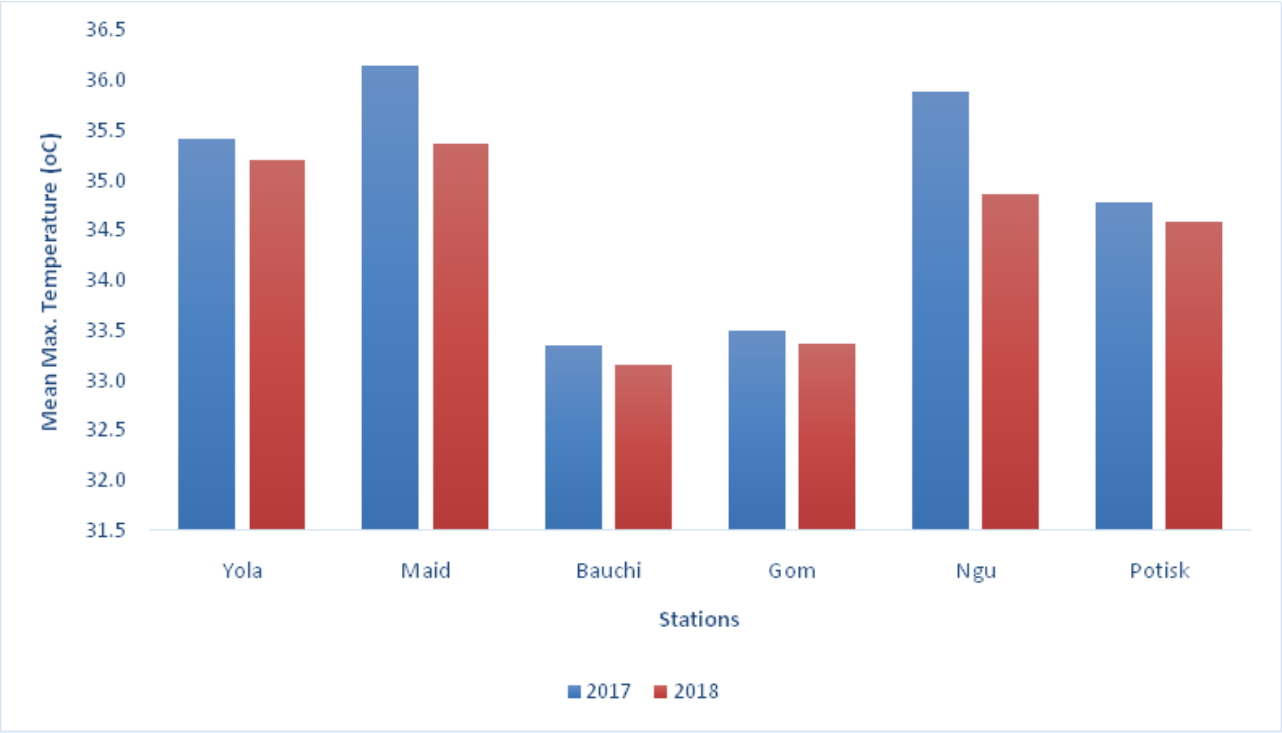


Figure 3.7: Mean Maximum Temperature for North East Zone

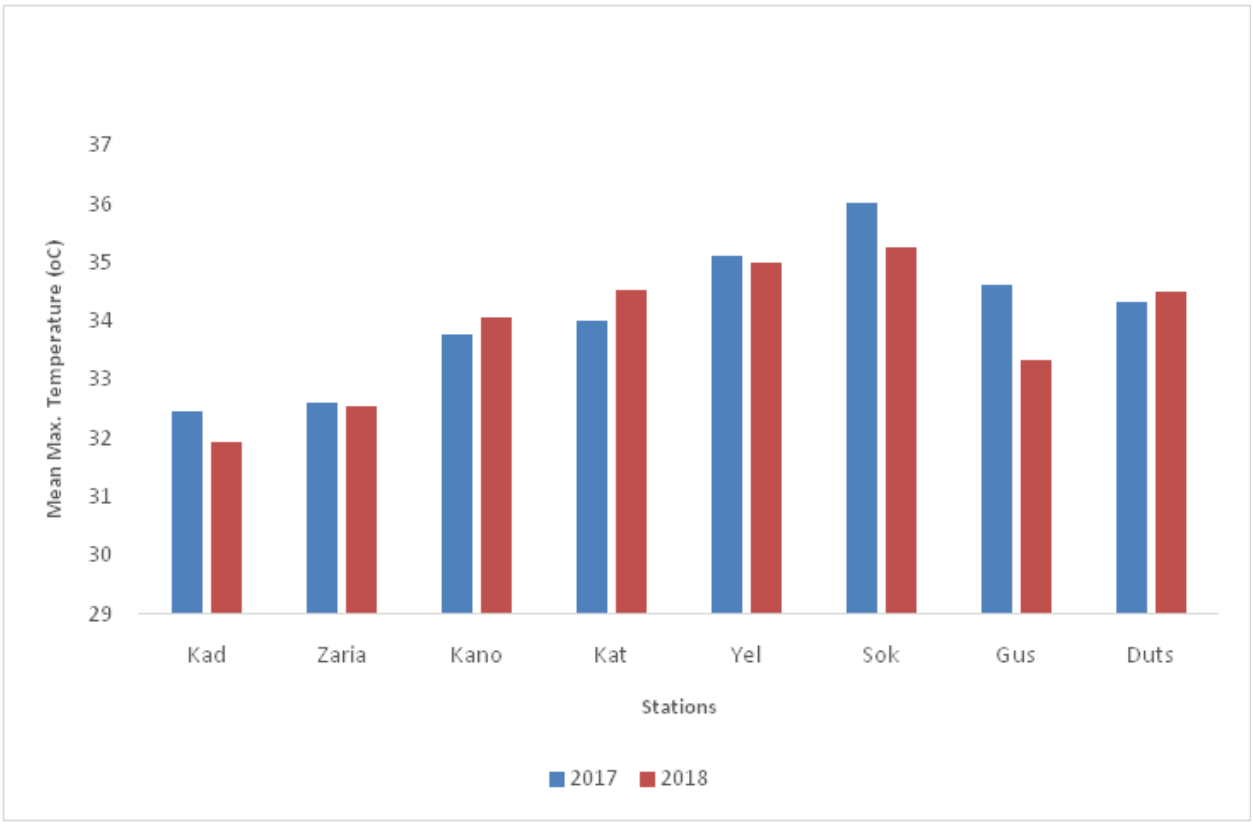


Figure 3.8: Mean Maximum Temperature for North West Zone

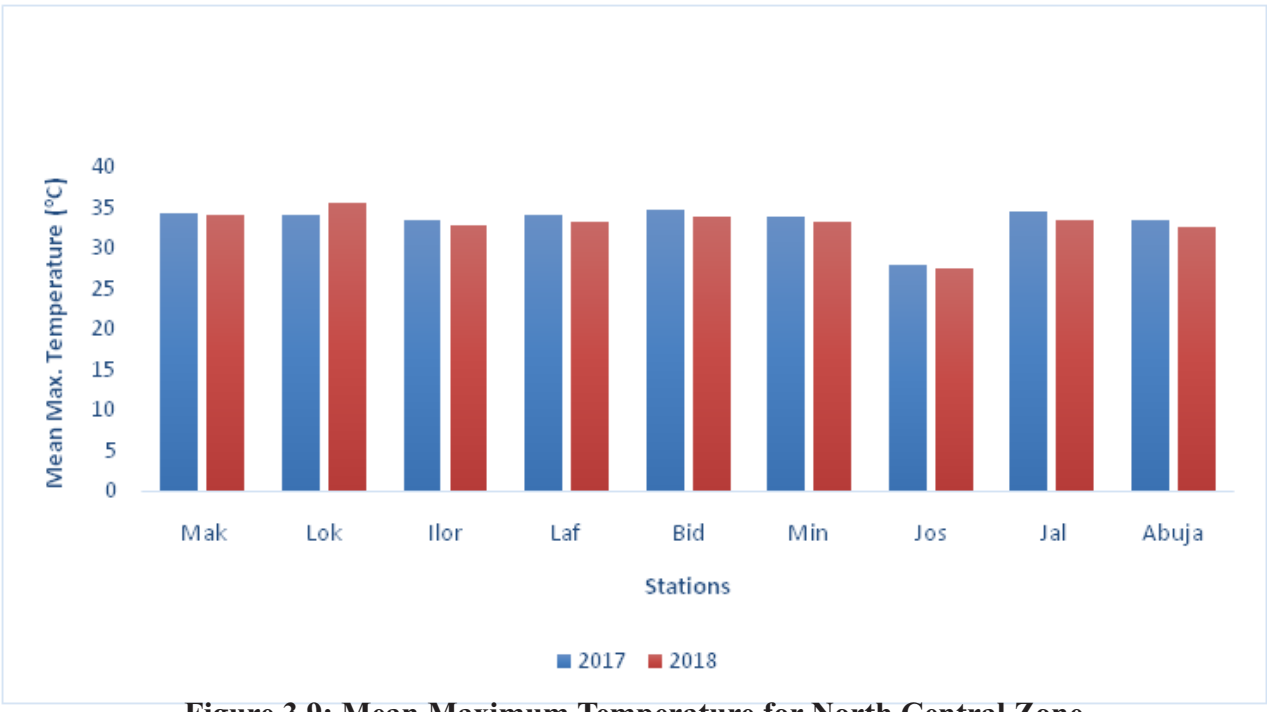


Figure 3.9: Mean Maximum Temperature for North Central Zone

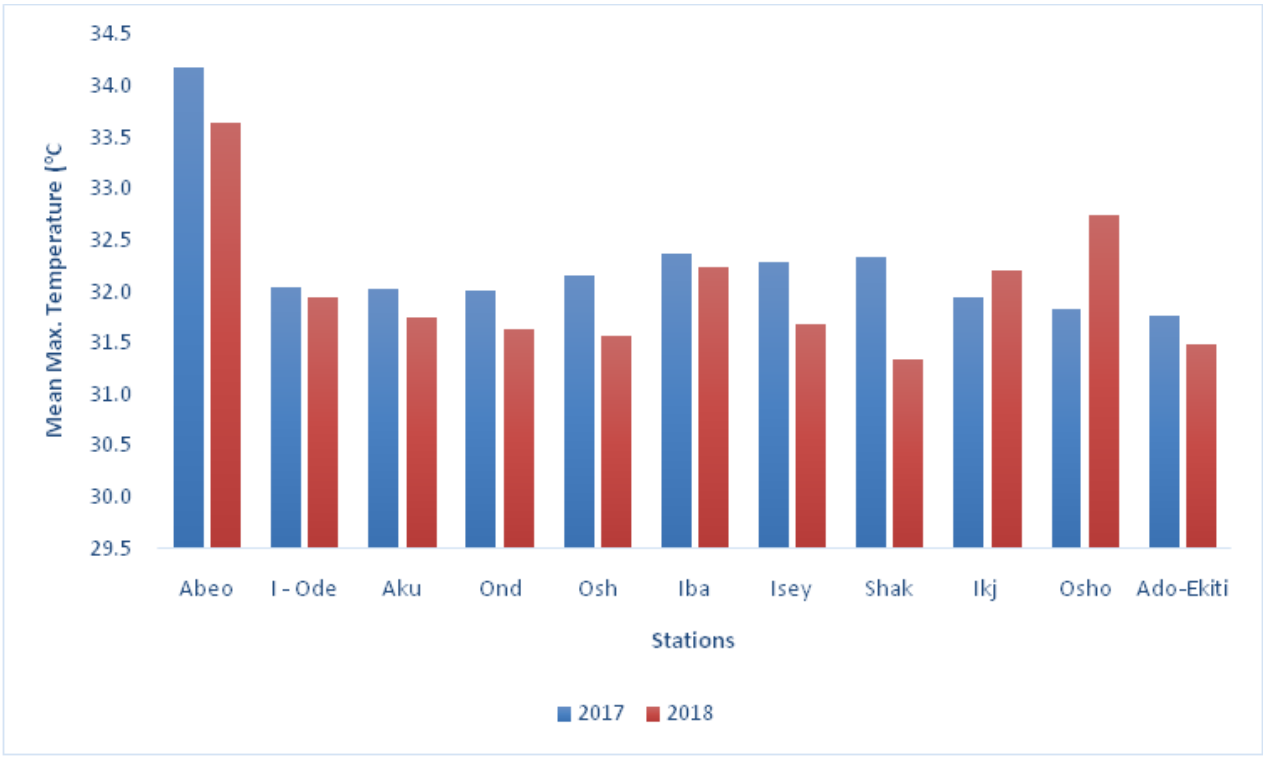


Figure 3.10: Mean Maximum Temperature for South West Zone

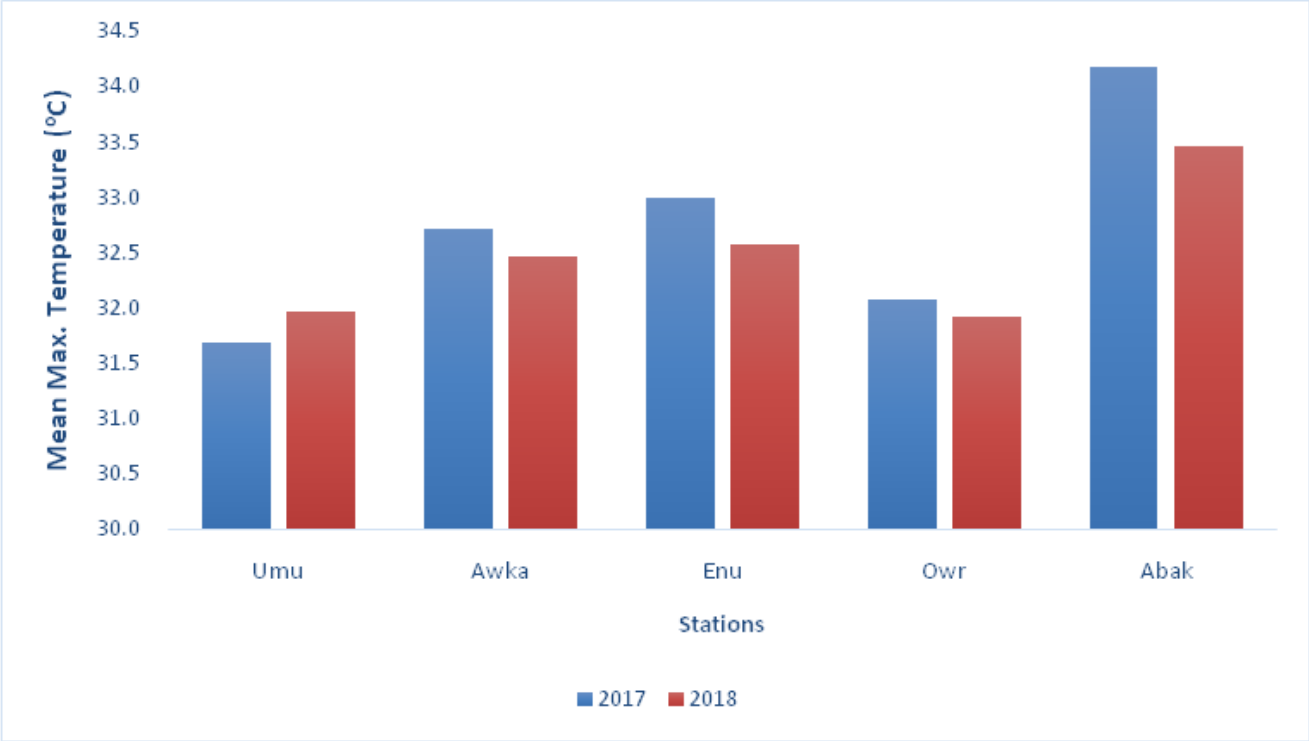


Figure 3.11: Mean Maximum Temperature for South East Zone

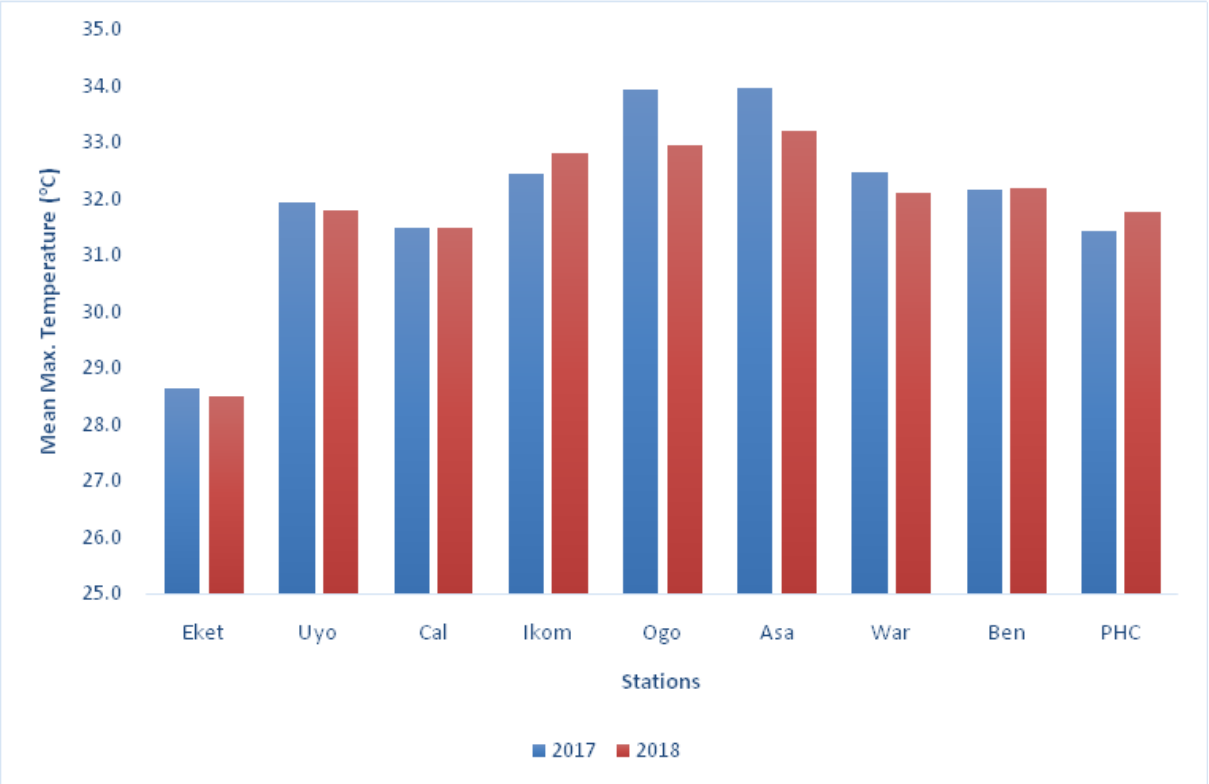


Figure. 3.12: Mean Maximum Temperature for South South Zone

Table 3.1: Total Monthly Rainfall (mm) in theNortheast Zone

		January		February		March		April		May		June		July		August		September		October		November		December		Total	Total
State	Station	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018
Adamawa	Yola	0	0	0	0	0	0	69.8	28.9	161.8	104.5	114	178.2	239.7	233.1	158	144.8	172.4	262.9	0	38.5	0	0	0	0	915.7	990.9
Borno	Maid	0	0	0	0	0	0	126.4	26.5	153.4	18.8	194.3	79.1	186.6	303.3	220	298.7	375.3	230.6	36.6	71.8	0	0	0	0	1292.6	1028.8
Bauchi	Bauchi	0	0	0	0	0	1.2	14	3.91	55.8	137.9	220.5	259.9	279.8	230.7	401.4	606.5	207	208.4	11.5	57.4	0	0	0	0	1190	1505.91
Gombe	Gom	0	0	0	0	0	0	53	0	83.2	139	206.7	96.8	168.5	224.5	223.3	431.1	220.3	381.6	14	21.0	0	0	0	0	969	1294
Yobe	Ngu	0	0	0	0	0	0	63.5	0	4.2	60.3	104.2	89.3	242.3	271.1	358.5	504	178.4	149.2	0	47.2	0	0	0	0	951.1	1121.1
Yobe	Potisk	0	0	0	17	0	0	0	0	57.8	24.4	99.7	87.2	129.3	117.6	161.7	135.1	48.2	101.1	0	36.1	0	0	0	0	496.7	518.5
Total		0	0	0	17	0	1.2	326.7	59.31	516.2	484.9	939.4	790.5	1246.2	1380.3	1522.9	2120.2	1201.6	1333.8	62.1	272	0	0	0	0	5815.1	6459.21

Table 3.2: Total Monthly Rainfall (mm) in theNorthwest Zone

		January		February		March		April		May		June		July		August		September		October		November		December		Total	Total
State	Station	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018
Kaduna	Kad	0	0	0	0	0	0	13.2	23.9	351.3	127	293	259	387.9	297.1	316	550.3	273.6	269.8	18.8	268.6	0	0	0	0	1653.8	1527.1
Kaduna	Zaria	0	0	0	0	0	0	2.8	0	141.1	82.7	161.2	158.7	205	310.6	186.5	280.4	209.2	252.6	7.5	86.6	0	0	0	0	913.3	1171.6
Kano	Kano	0	0	0	0	0	0	0	24.9	48.1	109	184.5	179.9	144.3	146	257	218.8	163.9	127.3	2.6	12.1	0	0	0	0	800.4	805.9
Katsina	Kat	0	0	0	0	0	0	11.9	24.9	9.1	95.4	110.5	64.7	143.2	274.1	186.1	212.2	215.3	122.8	0	3.0	0	0	0	0	676.1	797.1
Kebbi	Yel	0	0	0	0	0	0	18.7	6.5	186.6	64.1	174.2	163.3	172	419.2	478	414.5	278.8	210.4	14.2	158.1	0	0	0	0	1322.5	1436.1
Sokoto	Sok	0	0	0	0	0	0	0	22.6	25.4	3.2	67.6	118.4	125.5	152.9	89	179.7	94	168.2	2.5	38.8	0	0	0	0	404	683.8
Zamfara	Gus	0	0	0	0	0	0	53	0	83.2	77.3	206.7	175.2	168.5	239.5	223.3	268.4	220.3	255.9	14	10.9	0	0	0	0	969	1016.3
Jigawa	Dutse	0	0	0	0	0	0	9.5	0	18.7	75.7	122	186.2	146.7	123.8	239	323	83	192.8	58.5	10.8	0	0	0	0	677.4	901.5
Total		0	0	0	0	0	0	109.1	102.8	863.5	634.4	1319.7	1305.4	1493.1	1963.2	1974.9	2447.3	1538.1	1599.8	118.1	588.9	0	0	0	0	7416.5	8339.4

Table 3.3: Total Monthly Rainfall(mm) in the North central Zone

		January		February		March		April		May		June		July		August		September		October		November		December		Total	Total
State	Station	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018
Benue	Mak	0	0	0	17.2	0	0	86.3	565.5	245.8	210	394.8	1167.1	92.2	102.9	224.3	319.9	171.7	213.3	83.1	130.2	0	6.0	0	0.0	1298.2	2595.9
Kogi	Lok	0	0	0	127.8	0	0	126.4	1.7	153.4	239.1	194.3	130.2	186.6	193.7	220	207.5	375.3	308.2	36.6	222.3	0	0.0	0	0.0	1292.6	1430.5
Kwara	Ilor	0	0	0	0	26.4	0	77.5	66.2	244.6	284.6	341.3	3301.6	53.9	289.5	406.6	287.9	324.9	542.7	7.8	264.8	0	63.6	0	0.0	1483	4772.5
Nasarawa	Laf	0	0	0	34.5	0	20.9	126.3	7.6	133.9	266.7	278.6	456.2	289.9	457.8	680.9	516.6	376.6	357.7	30.3	222.3	0	175.3	0	0.0	1916.5	2515.6
Niger	Bid	0	0	0	13	0	6.8	0	187.5	159.6	890.2	151.2	127.7	156.1	358.8	249.9	378.9	320.4	148.2	51.1	204.2	0	0.0	0	0.0	1088.3	2315.3
Niger	Min	0	0	0	4.8	0	5.7	7.3	0	213.6	160.5	268.2	179.6	189.7	149.7	209.6	234.2	228.3	262.1	35	117.1	0	0.0	0	0.0	1151.7	1113.7
Plateau	Jos	0	0.01	0	21.1	11.7	41.9	66.4	76.5	178.5	141.5	348.5	141.8	244.8	146.2	394	165.7	190.1	182	6.3	62.8	0	0.0	0	0.0	1440.3	916.71
Taraba	Ibi		0		0		0		0		166.7		283.6		476.4		145.1				317.6		177.5		2.4	0	1071.8
FCT	Abuja	0	0	0	8.4	8.2	34.1	72.5	7.3	172.3	214.7	187.7	140.4	74.4	110.2	392.9	125.6	148	213.6	71.2	82.9	0	0.0	35.1	0.0	1162.3	937.2
Total		0	0.01	0	226.8	46.3	109.4	562.7	912.3	1501.7	2574	2164.6	5928.2	1287.6	2285.2	2778.2	2381.4	2135.3	2227.8	321.4	1624.2	0	422.4	35.1	2.4	10832.9	17669.21

Table 3.4: Total Monthly Rainfall (mm) in the Southeast Zone

		Janu ary		February		March		April		May		June		July		August		September		October		November		December		Total	Total
State	Station	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018
Abia	Umu	51.7	0	0	0	76.8	11.2	489.6	257.2	260.4	265	560.5	314.1	493.7	234.6	219.8	199.8	338.4	364.8	182.3	228.4	30	30.9	0	0	2703.2	1646.7
Anambra	Awka	3.4	0	0	44.6	33.4	39.6	519.8	3.9	299.5	240	674.5	438.7	654.4	688.9	407.4	447.7	504.7	888	331.6	412.0	90.1	141.2	7.4	0	3526.2	3344.6
Enugu	Enu	1.9	0	0	25.7	10.8	66.5	295.6	230.7	170.8	228.9	356.7	211.8	362.5	403.3	371	226.9	299.6	266.5	176.6	173.5	25.8	71.9	0	0	2071.3	1660.3
Imo	Owri	8.8	15.1	0	32.8	70.8	70.8	22	70.8	204.6	256.2	213.4	551.4	376.5	362.5	391.2	292.4	351.1	376.8	97.4	306.1	29	23.4	0	0	1764.8	2358.3
Ebonyi	Abak	3.2	0	0	11.7	45.6	13.1	199.9	201	232.2	239.5	196.8	531.3	129.1	597.5	481.6	610.6	245.1	596.6	397.9	178.3	33.9	63.8	0	0	1965.3	3043.4
Total		69	15.1	0	114.8	237.4	201.2	1526.9	763.6	1167.5	1229.6	2001.9	2047.3	2016.2	2286.8	1871	1777.4	1738.9	2492.7	1185.8	1298.3	208.8	331.2	7.4	0	12030.8	12053.3

Table 3.5: Total Monthly Rainfall (mm) in the Southwest Zone

		January		February		March		April		May		June		July		August		September		October		November		December		Total	Total
State	Station	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018
Ogun	Abe	53.6	0	24	8.4	18.9	75.4	118.1	125.6	247.8	207.2	130.7	189.2	154.8	259.9	78.1	64.1	210.3	228.4	40.2	147.5	4.8	10.6	0	0.0	1081.3	1158.2
Ogun	I–Ode	3.6	0	43.4	174.8	104.6	58.6	62.2	63.8	304.8	239.7	398.9	208.9	229.3	283.4	159.2	208.4	201.3	206	122.3	298.1	46.3	49.6	14.6	0.0	1690.5	1791.3
Ondo	Aku	0	0	0	4.8	33.4	36.1	88.4	75.9	88.9	166	200.2	256.5	241.3	259.3	71.1	186.6	116.5	279.3	28.4	144.7	0	70.8	0	0.0	868.2	1264.5
Ondo	Ond	0	0	34.3	22.4	53.1	40.3	101.7	89.5	170	241.8	466.3	286.4	343.8	395.1	248.6	138.4	265.1	272.8	51.6	234.4	0	53.6	0	0.0	1734.5	1774.7
Osun	Osh	0	0	0	74.3	46.4		109.3	29.1	283.2	312.3	132.6	204	138.6	239	98.2	140	205.4	307	108.6	189.7	2.4	33.0	22.6	33.6	1147.3	1562
Oyo	Iba	4.9	0	21	12.8	166.8	84.6	108.6	112.6	209.8	281.2	278	227.6	296.2	226.8	141.8	193.1	293.9	319.3	81.3	272.2	0	54.7	55.2	0.0	1657.5	1784.9
Oyo	Isey	0	0	0	62	77.1	66.3	52.8	112.1	309.6	118.6	129.8	222.7	123.8	217.3	196.5	135.4	211.3	351.7	92.3	259.7	17.9	45.3	0	0.0	1211.1	1286.1
Oyo	Shak	35	0	0	11	13.7	60.2	133.1	39.3	105.5	41.7	196.9	303.5	113.3	128.5	197	76.6	156.8	225.5	113.2	138.4	0.7	0.0	0	0.0	1065.2	886.3
Lagos	Ikj	1.4	0	25.6	24.2	90.8	78.3	91.2	117.2	231.8	276.9	370.3	183.7	296.1	201.4	93.3	108.9	176.9	260.5	209.1	153.8	27.8	37.5	29.1	11.1	1643.4	1453.5
Lagos	Osho	1.2	0	13.3	53.5	136.7	63.8	75.9	200.7	225.6	182.2	340.7	186.1	387.9	192.1	97.2	71.7	177.3	307	165.4	131.2	74.3	8.6	0	33.6	1695.5	1430.5
Ekiti	Ado Ekiti	42.5	0	4.9	68.7	29.2	2.9	123	75.1	211	185.2	264	123.1	405.7	315.1	73.5	194.1	217.2	383.5	45.1	122.3	2.9	20.3	0.4	0.0	1419.4	1490.3
Total		142.2	0	166.5	516.9	770.7	566.5	1064.3	1040.9	2388	2252.8	2908.4	2391.7	2730.8	2717.9	1454.5	1517.3	2232	3141	1057.5	2092	177.1	384	121.9	78.3	15213.9	15882.3

Table 3.6: Total Monthly Rainfall (mm) in the Southsouth Zone

		January		February		March		April		May		June		July		August		September		October		November		December		Total	Total
State	Station	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018
A-Ibom	Eket	12.4	0	1.8	105.8	163.6	178.8	157.6	99.1	337.4	221.9	471.3	445	540.4	413.7	470.7	312.5	241	225.1	301.2	259.9	84.7	101.2	51.7	0.0	2833.8	2001.9
A-Ibom	Uyo	22.5	0	0	32.4	128.5	177.7	260.6	107.9	446.5	58.3	344.3	187.6	453.9	187.2	179.2	350.3	243	269.2	158.3	249.1	127.3	76.2	0	0.0	2364.1	1695.9
C/Rivers	Cal	25.4	0	0	194.9	133.7	113	419.8	187.5	290.1	193.9	250	250	410.5	542.6	620.5	604	331.9	462.7	180.2	199.9	310.4	152.5	39.7	0.0	3012.2	2548.6
C/Rivers	Ikom	49.8	0	0	0	64.3	148.6	167.7	87.7	223.1	204.1	351.6	427.5	329.1	430.8	406.5	353.4	333.3	491	328.1	353.4	66.3	135.8	4.6	0.0	2324.4	2632.3
C/Rivers	Ogo	3.2		0	0	0	214.9	154.7	132.9	362.1	239.7	155.2	208.4	214.2	283.4	368	208.4	360.4	368	222.7	378.1	0	14.6	0	0.0	1840.5	2048.4
Delta	Asa	3.9	0	0	2.4	71.8	17.4	323.6	219.5	335.7	207.2	374.2	132.1	614.3	846.7	497.4	294.2	262	729.1	407.3	138.6	0	69.3	0	0.0	2890.2	2656.5
Delta	War	59.9	3.8	16.3	148.4	73.8	158.9	283.7	232.6	175.8	207.7	426.4	452.6	566.8	385.3	282.8	279.6	282	385.9	337.2	370.3	143.9	94.3	12.1	10.4	2660.7	2254.8
Edo	Ben	0.6	0	51.1	132.2	130.7	126.7	206.8	110.9	262	207.7	271.2	191	417.5	402	433.2	438.6	207.8	330.9	244.8	92.0	114.7	76.3	7.4	0.0	2347.8	1940
Rivers	PHC	10.1	0	0	9.8	230.5	115.9	230.5	70.8	286.5	166.3	463.6	474.6	521.1	266.9	362.9	247.5	382.6	430.1	182.9	187.1	41.4	111.2	0	0.0	2712.1	2080.2
Total		187.8	3.8	69.2	625.9	996.9	1251.9	2205	1248.9	2719.2	1706.8	3107.8	2768.8	4067.8	3758.6	3621.2	3088.5	2644	3692	2362.7	2228.4	888.7	831.4	115.5	10.4	22985.8	19858.6

Table 3.7: Total Rainy Days in the North East Zone

		January		February		March		April		May		June		July		August		September		October		November		December		2017	2018
State	Station	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	Total	Total
Adamawa	Yola	0	0	0	0	0	0	6	2	7	6	12	12	17	12	14	11	14	16	0	4	0	0	0	0	70	63
Borno	Maid	0	0	0	6	0	4	0	9	6	4	9	8	12	10	15	16	6	16	0	2	0	0	0	0	48	75
Bauchi	Bauchi	0	0	0	0	0	1	2	4	5	10	10	8	13	12	17	19	11	15	1	5	0	0	0	0	59	74
Gombe	Gom	0	0	0	0	0	0	4	0	7	6	12	11	14	17	15	20	15	19	5	4	0	0	0	0	72	77
Yobe	Ngu	0	0	0	1	0	3	4	11	2	4	4	4	11	11	9	17	12	8	0	2	0	0	0	0	42	61
Yobe	Potisk	0	0	0	0	0	0	0	0	7	5	6	9	8	12	13	15	8	10	0	4	0	0	0	0	42	55
Average		**0**	**0**	**0**	**1**	**0**	**1**	**3**	**4**	**6**	**6**	**9**	**9**	**13**	**12**	**14**	**16**	**11**	**14**	**1**	**4**	**0**	**0**	**0**	**0**	**333**	**405**

Table 3.8: Total Rainy Days in the North West Zone

		January		February		March		April		May		June		July		August		September		October		November		December		2017	2018
State	Station	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	Total	Total
Kaduna	Kad	0	0	0	0	0	0	1	1	15	8	15	16	13	21	14	21	17	16	3	11	0	0	0	0	78	94
Kaduna	Zaria	0	0	0	0	0	0	1	0	9	7	15	13	11	16	17	18	14	19	2	9	0	0	0	0	69	82
Kano	Kano	0	0	0	0	0	0	0	0	2	4	9	11	10	14	15	17	7	11	1	1	0	0	0	0	44	58
Katsina	Kat	0	0	0	0	0	0	1	1	3	4	7	6	8	14	13	19	9	11	0	1	0	0	0	0	41	56
Kebbi	Yel	0	0	0	0	0	0	2	2	8	8	12	11	12	16	13	19	14	16	2	10	0	0	0	0	63	82
Sokoto	Sok	0	0	0	0	0	0	0	1	8	2	6	8	8	13	11	11	5	14	1	4	0	0	0	0	39	53
Zamfara	Gus	0	0	0	0	0	0	1	0	4	7	12	10	13	16	12	13	8	16	2	2	0	0	0	0	52	64
Jigawa	Duts	0	0	0	0	0	0	2	0	5	8	11	8	13	13	10	16	7	10	6	2	0	0	0	0	54	57
Average		**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**7**	**6**	**11**	**10**	**11**	**15**	**13**	**17**	**10**	**14**	**2**	**5**	**0**	**0**	**0**	**0**	**440**	**546**

Table 3.9: Total Rainy Days in the North East Zone

		January		February		March		April		May		June		July		August		September		October		November		December		2017	2018
State	Station	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	Total	Total
Benue	Mak	0	0	0	1	0	0	8	5	12	10	11	13	18	13	14	19	14	15	6	10	0	1	0	0	83	87
Kogi	Lok	0	0	0	2	0	0	0	5	10	6	11	10	10	15	19	18	13	15	15	9	2	0	4	0	84	80
Kwara	Ilor	0	0	0	0	2	0	5	4	15	13	14	14	5	12	11	11	12	20	2	16	0	1	0	0	66	91
Nasarawa	Laf	0	0	0	0	0	0	4	3	10	8	7	14	13	14	18	12	11	15	3	9	0	15	0	0	66	90
Niger	Bid	0	0	0	1	0	2	0	1	13	13	12	13	15	15	15	17	17	12	4	10	0	0	0	0	76	84
Niger	Min	0	0	0	1	0	1	3	6	17	9	11	14	13	21	13	2	6	21	0	12	0	0	0	0	63	87
Plateau	Jos	0	0	0	2	1	2	4	8	14	16	19	18	21	22	23	23	19	14	2	6	0	0	0	0	103	111
Taraba	Jal	0	0	0	0	0	0	7	3	9	3	11	7	10	10	13	10	15		1		0		0		66	33
FCT	Abuja	0	0	0	1	1	6	5	9	12	10	15	11	10	15	21	20	12	19	10	12	0	0	2	0	88	103
Average		**0**	**0**	**0**	**1**	**0**	**1**	**4**	**5**	**12**	**10**	**12**	**13**	**13**	**15**	**16**	**15**	**13**	**16**	**5**	**11**	**0**	**2**	**1**	**0**	**462**	**508**

Table 3.10: Total Rainy Days in the South East Zone

		January		February		March		April		May		June		July		August		September		October		November		December		2017	2018
State	Station	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	Total	Total
Abia	Umu	2	0	0	2	5	2	8	6	12	11	16	12	20	14	16	16	6	21	0	12	12	4	0	0	97	100
Anambra	Awka	1	0	0	2	3	7	15	12	12	12	16	21	19	22	23	19	20	25	18	18	3	5	1	0	131	143
Enugu	Enu	1	0	0	0	4	0	12	0	17	9	11	14	19	20	26	22	16	23	11	17	3	0	0	0	120	105
Imo	Owr	1	0	0	1	8	4	10	9	12	11	19	18	21	21	19	16	16	19	10	15	3	5	0	0	119	119
Ebonyi	Abak	1	0	0	3	2	1	9	10	8	12	11	18	13	20	22	18	14	20	14	11	3	3	0	0	97	116
Average		**1**	**0**	**0**	**2**	**4**	**3**	**11**	**7**	**12**	**11**	**15**	**17**	**18**	**19**	**21**	**18**	**14**	**22**	**11**	**15**	**5**	**3**	**0**	**0**	**564**	**583**

Table 3.11: Total Rainy Days in the South West Zone

		January		February		March		April		May		June		July		August		September		October		November		December		2017	2018
State	Station	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	Total	Total
Ogun	Abeo	3	0	1	3	6	6	8	8	16	10	13	16	13	15	13	25	10	21	3	15	2	6	0	0	88	125
Ogun	I-Ode	2	2	4	5	8	4	8	5	14	11	21	13	19	20	12	19	14	20	12	19	4	8	2	0	120	126
Ondo	Aku	0	0	0	2	4	4	3	5	11	13	15	15	19	17	10	19	14	14	6	13	0	3	0	0	82	105
Ondo	Ond	0	2	1	5	11	4	11	5	12	13	19	12	21	19	19	12	18	17	10	15	0	4	0	0	122	108
Osun	Osh	0	0	0	6	5	0	10	8	10	15	17	13	19	17	12	16	12	23	11	16	14	6	0	1	110	121
Oyo	Iba	1	0	1	3	8	7	7	5	11	12	15	10	13	16	11	13	14	0	8	12	0	4	2	0	91	82
Oyo	Isey	0	0	0	3	4	3	5	5	13	11	11	14	12	15	12	14	14	17	6	13	3	2	0	0	80	97
Oyo	Shak	2	0	0	4	4	3	8	8	10	5	14	11	12	11	14	10	11	20	6	8	1	0	0	0	82	80
Lagos	Ikj	1	0	6	3	7	2	6	6	14	14	20	16	18	13	8	13	13	17	15	13	2	5	4	1	114	103
Lagos	Osho	1	1	1	4	10	2	7	20	18	14	22	13	20	15	11	12	12	18	11	10	14	2	0	1	127	112
Ekiti	Ado-Ekiti	4	0	1	3	12	5	21	9	12	11	16	13	18	20	13	17	17	20	19	16	8	5	6	0	147	119
Average		**1**	**0**	**1**	**4**	**7**	**4**	**9**	**8**	**13**	**12**	**17**	**13**	**17**	**16**	**12**	**15**	**14**	**17**	**10**	**14**	**4**	**4**	**1**	**0**	**1163**	**1178**

Table 3.12: Total Rainy Days in the South South Zone

		January		February		March		April		May		June		July		August		September		October		November		December		2017	2018
State	Station	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	Total	Total
A–Ibom	Eket	4	0	1	11	12	22	21	15	31	20	30	20	23	21	25	25	14	18	5	16	1	11	0	0	167	179
A–Ibom	Uyo	1	0	0	2	0	3	11	8	13	10	26	17	17	16	17	19	18	19	11	10	0	12	0	0	114	116
C/Rivers	Cal	4	0	0	9	5	13	13	11	22	19	24	21	20	25	24	19	16	21	12	16	16	12	3	0	159	166
C/Rivers	Ikom	3	0	0	0	4	9	13	11	15	18	19	21	23	23	20	25	18	19	17	22	6	6	1	0	139	154
C/Rivers	Ogo	1	0	0	2	0	3	11	8	13	14	15	13	14	12	19	14	18	16	11	19	0	3	0	0	102	104
Delta	Asa	1	0	0	2	4	3	11	8	10	7	15	10	20	20	17	17	15	17	10	8	0	2	0	0	103	94
Delta	War	4	0	3	0	12	16	13	15	14	21	20	26	25	24	21	23	21	23	22	24	11	8	2	3	168	183
Edo	Ben	1	0	3	6	7	5	14	9	11	9	21	15	25	17	19	16	16	19	15	17	8	5	1	0	141	118
Rivers	PHC	1	0	0	1	12	6	7	9	16	11	21	21	21	18	22	21	18	19	15	19	6	10	0	0	139	135
Average		**2**	**0**	**1**	**2**	**7**	**7**	**11**	**10**	**13**	**12**	**18**	**17**	**21**	**18**	**20**	**18**	**18**	**19**	**15**	**17**	**5**	**6**	**1**	**1**	**1232**	**1249**

4.0 USE OF IMPROVED FARM INPUT

4.1 Planting Materials

Farm inputs (seed and seedlings) procured and delivered by states in 2018 is presented in Tables 4.1-4.5. From the table, only 10 states and the FCT supplied data on various planting materials procured and distributed. Agricultural Development Projects, some agricultural research institutes, state input supply companies were involved in the procurement and distribution of improved seeds. Other sources of some of these inputs were Private Seed Companies; Out growers, NGOs and farmer organizations. While some few states reported that farmers were comfortable with the quantities and cost of planting materials, majority of the states, however reported that the quantities procured and distributed were not adequate, very expensive and out of reach of the common farmer.

Reports from the north western zone of the country indicated that Jigawa was the only state that supplied adequate improved rice, and millet seeds to farmers at affordable prices during 2018 wet season. Sesame was however procured and distributed but the quantity was not adequate to the sesame farmers. For north central zone states, seeds and seedlings procured and distributed were improved maize and rice seeds in FCT, Kwara, Nasarawa and Benue, although the quantity was only adequate and affordable to farmers in Nasarawa state. Cashew Seedlings and cassava stems were also procured and distributed to farmers in Kwara and Benue states respectively but not in adequate quantities. Except Lagos state which supplied improved maize seed, cassava stems and oil palm seedling to farmer, although at high price, all states of the south-western zone of the country were not able to supply farmers with seeds and seedlings during the 2018 wet season. Planting materials for root and tuber crops such as cassava, oilpalm, citrus coconut, local pear, plantain, and pineapple were available in the South-East and some South-South states; some of which were at affordable process. Improved Maize seed was also available in Abia and Akwa Ibom states.

Generally, seeds of cereal crops were the most widely distributed while few states distributed fruit seedlings across the zones. Planting materials for root and tuber crops were available in the South-West, South-East and some North Central states. Discussion with farmers indicated that although there was increased awareness on the use of improved seeds/planting materials by farmers many of them were unable to access such improved inputs due to their non-availability and high cost.

Table 4.1: Use of Farm Inputs (Seed and Seedlings) Procured and Delivered by States in 2018 in the Northwest Zone

Northwest Zone – Seed and Seedlings							
State	**Crop**	**Input type**	**Quantities Procured**	**Qty Distributed**	**Adequacy**	**Affordability**	**Source**
Jigawa	Rice	Improve seed	149	40	✓	✓	-
	Sesame	Improve seed	4.5	4.5	X	✓	-
	Millet	Improve seed	8.5	6.8	✓	✓	-

Table 4.2: Use of Farm Inputs (Seed and Seedlings) Procured and Delivered by States In 2018 in the North-Central Zone

North-Central Zone – Seed and Seedlings							
State	**Crop**	**Input type**	**Quantities Procured**	**Qty Distributed**	**Adequacy**	**Affordability**	**Source**
FCT	Maize	Improve seed	1.5mt	1.5mmt	X	X	NRCI, Seed Comp
	Rice	Improve seed	3.0mt	3.0mmt	X	X	-
Kwara	Maize	Improve seed	3mt	3mt	X	X	Out growers
	Cashew	Seedlings	300 stands	300 stands	X	X	Through private out growers
Nasarawa	Maize	Improve seed	1.5tons	1.5tons	✓	✓	NADP
	Rice	Improve seed	0.5tons	0.5tons	✓	✓	Direct production
Benue	Maize(hybrid)	Improve seed	2100kg	2.1	X	X	Premier seeds
	Rice faro 44	Improve seed	3	3	X	X	Strategic seeds nig
	Cassava	Cuttings	30,000	30,000	✓	X	Farmer sellers

Table 4.3: Use of Farm Inputs (Seed and Seedlings) Procured and Delivered by States In 2018 in the Southwest Zone

Southwest Zone – Seed and Seedlings							
State	**Crop**	**Input type**	**Quantities Procured**	**Qty Distributed**	**Adequacy**	**Affordability**	**Source**
Lagos	Maize	Improved Seeds	10.2	10.2	✓	X	Wacot
	Cassava	Cuttings	500	500	✓	X	Ijebu-ife
	Oil Palm	Seedlings	2500	2500	X	X	Nifoil

Table 4.4: Use of Farm Inputs (Seed and Seedlings) Procured and Delivered by States In 2018 in the Southeast Zone

Southeast Zone – Seed and Seedlings							
State	**Crop**	**Input type**	**Quantities Procured**	**Qty Distributed**	**Adequacy**	**Affordability**	**Source**
Abia	Maize	Improved Seeds	1.3MT	1.3MT	✓	✓	ADP/NSS/FMANR
	Cassava	Cuttings	950 Bundles	950 Bundles	X	✓	ADP & NCRI
	Oil palm	Seedlings	2000	2000	X	X	State Min of Agric
	Citrus(NOS)	Seedlings	-	600	X	✓	ADP
	Coconut (NOS)	Seedlings	1500	1300	✓	✓	ADP
	Local pear (NOS)	Seedlings	500	300	✓	✓	ADP

Table 4.5: Use of Farm Inputs (Seed and Seedlings) Procured and Delivered by States In 2018 in the South-South Zone

South-South Zone – Seed and Seedlings							
State	**Crop**	**Input type**	**Quantities Procured**	**Qty Distributed**	**Adequacy**	**Affordability**	**Source**
Akwa_Ibom	Maize	Improved Seeds	1.0mt	1.0mt	X	✓	Harvest plus
	Cassava	Cuttings	5000bundles	5000bundles	X	✓	Aradera seeds
	Oil palm	Seedlings	5000 stands	5000 stands	✓	✓	Aradera
	Plantain	Seedlings	13000stands	13000stands	✓	✓	Farmers
	Pineapple	Seedlings	2000	2000	✓	✓	Farmers
Cross River	Oil palm	Seedlings	100,000	55,000	X	X	NIFOR
Bayelsa	Cassava	Cuttings	200 bunfles	200 bunfles	X	✓	FMARD
Rivers	Cassava (Tms 0505)	Cuttings	130	100	X	X	
	Cassava (Tme 419)	Cuttings	160	80	X	X	

4.2 Agro-chemicals and some Farm Equipment

The purchase and distribution of agro-chemicals are presented in Tables 4.6- 4.10. Only 6 out of 36 states and the FCT procured and distributed agro-chemicals and some farm equipment mostly through Agricultural Development Projects and input supply companies. Other major sources were Federal Government agencies and private agro-chemical companies. Other farm equipment supplied to farmers includes sprayers, water pumps, storage bins, knitting machines, agro-processing equipment etc. Data show that there were very limited quantities of agro-chemicals at affordable prices. Discussions with farmers revealed that low use of agro-chemicals was due to their high cost.

4.3 Livestock and Fisheries Inputs

Information on purchase, and use of livestock, fisheries and poultry inputs are presented in Tables 4.11-4.14. Only 6 states and the FCT reported purchase and use of livestock and fisheries inputs by farmers. Most of the inputs are feeds, drugs and vaccines, obtained through open market. Other major sources were Federal Government agencies and private livestock drug and feeds companies. Other inputs used by farmers were fish fingerlings. Data show that there were adequate supplies of the inputs in North Central and South Eastern zones of the country. However, very limited quantities of the inputs were procured in the south-South and south east zones of the country and the prices not affordable. Discussions with farmers revealed that low use of the inputs was due to unavailability and high cost.

4.4 Farm Equipment

Use of farm equipment during the 2018 wet season was reported by 18 states from the 6 geopolitical zones of the country as presented in Tables 4.15-4.20. Agricultural Development Projects, some agricultural research institutes, state input supply companies were involved in the procurement and distribution of equipment. While some few states reported that farmers were comfortable with the quantities and cost of planting materials, majority of the states, however reported that the quantities procured and distributed were not adequate, very expensive and out of reach of the common farmer.

Table 4.6: Use of Agrochemicals in the Northwest Zone

Northwest Zone – Agro-Chemicals							
State	**Name**	**Input type**	**Quantities Procured**	**Qty Distributed**	**Adequacy**	**Affordability**	**Source**
Jigawa		Pesticides & Herbicides	17,600ltrs	5820ltrs	✓	✓	Open market

Table 4.7: Use of Agrochemicals in the North-Central Zone

North-Central Zone – Agro-chemicals							
State	**Brand**	**Input type**	**Quantities Procured**	**Qty Distributed**	**Adequacy**	**Affordability**	**Source**
FCT	Paraquat	Pesticides/Herbicides	300lts	200lts	X	X	-
	Glyphosate	Pesticides/Herbicides	100lts	100lts	X	X	-
	Amino seal	Pesticides/Herbicides	75lts	75lts	X	X	-
	Butastar	Pesticides/Herbicides	100lts	100lts	X	X	-
Kwara	Laraforce	Pesticides/Herbicides	12pieces	12pieces	X	X	Agrochemical group
Nasarawa	Kombat	Pesticides/Herbicides	26 Lts	12 Lts	✓	✓	Companies
	Cyperview	Pesticides/Herbicides	75 Lts	44 Lts	✓	✓	Saro\ spring
	Laraforle	Pesticides/Herbicides	115 mls	115 mls	✓	✓	Private

Table 4.8: Use of Agrochemicals in the Southwest Zone

Southwest Zone – Agro -chemicals							
State	**Brand**	**Input type**	**Quantities Procured**	**Qty Distributed**	**Adequacy**	**Affordability**	**Source**
Lagos	Dragron	Pesticide/harvicide	500	500	X	✓	Laisa agebe

Table 4.9: Use of Agrochemicals in the Southeast Zone

Southeast Zone – Agro-chemicals							
State	**Brand**	**Input type**	**Quantities Procured**	**Qty Distributed**	**Adequacy**	**Affordability**	**Source**
Abia	Pesticides/Herbicides	Pesticides/Herbicides	200lt	200lt	X	X	FMANR

Table 4.10: Use of Agrochemicals in the South-South Zone

South-South Zone – Agro-chemicals							
State	**Brand**	**Input type**	**Quantities Procured**	**Qty Distributed**	**Adequacy**	**Affordability**	**Source**
Akwa_Ibom	Pesticides	Pesticides	0.3mt	0.3mt	X	✓	Accredited
	Herbicides	Herbicides	0.35mt	0.35mt	X	✓	Agents
Rivers	Sharp shooter	Pesticides/Herbicides	5litres	5litres	X	X	ADP stores
	Force up	Pesticides/Herbicides	5litres	5litres	✓	X	ADP stores
	Premextra	Pesticides/Herbicides	5litres	5litres	✓	X	ADP stores

Table 4.11: Use of Livestock and Fisheries Inputs in the North-Central Zone

North Central Zone – Livestock and Fisheries Inputs							
State	**Input Category**	**Input type**	**Quantities Procured**	**Qty Distributed**	**Adequacy**	**Affordability**	**Source**
FCT	Poultry	Day Old Chicks	59000	59000	X	X	Open market, ARDS
	Feed	Feeds	5500	-	X	X	-
Nasarawa	Poultry	Broiler Chicks	210000	210000	✓	✓	Private
	Poultry	Pullets	150000	150000	✓	✓	Farms
	Poultry	Poults	50000	50000	✓	✓	-
	Feeds	Feeds	91000 Bags	91000 Bags	✓	✓	Private
	Feed Ingredients	Feeds	50 Bags	50 Bags	✓	✓	Private
	Vaccines Drugs	Drugs	3600 vials	3600 vials	✓	✓	Private
	Vaccines Drugs	Disinfectant	1000 kg	1000 kg	✓	✓	Private
	Vaccines Drugs	Dewormer	1600 mls	1600 mls	✓	✓	Private

Table 4.12: Use of Livestock and Fisheries Inputs in the Southwest Zone

Southwest Zone – Livestock and Fisheries Inputs							
State	**Input Category**	**Input type**	**Quantities Procured**	**Qty Distributed**	**Adequacy**	**Affordability**	**Source**
Lagos	Fish	Juve-e	500000	50000	X	✓	Dip grace
	Fish	Fish feed	2000	2000	X	✓	Rhys farm

Table 4.13: Use of Livestock and Fisheries Inputs in the Southeast Zone

Southeast Zone – Livestock and Fisheries Inputs							
State	**Input Category**	**Input type**	**Quantities Procured**	**Qty Distributed**	**Adequacy**	**Affordability**	**Source**
Abia	Poultry	Day Old Chicks	3000	2930	✓	✓	OPEN MARKET
	Fisheries	Fingerlings	12000	11500	✓	✓	OPEN MARKET
	Vaccines & Drugs	Gumboro (doses)	2000	2000	✓	✓	OPEN MARKET
	Vaccines & Drugs	Lasota (doses)	2000	2000	✓	✓	OPEN MARKET
	Vaccines & Drugs	Fowl typhoid drugs (gmd)	500	500	✓	✓	OPEN MARKET

Table 4.14: Use of Livestock and Fisheries Inputs in the South-South Zone

South-South Zone – Livestock and Fisheries Inputs							
State	**Input Category**	**Input type**	**Quantities Procured**	**Qty Distributed**	**Adequacy**	**Affordability**	**Source**
Akwa_Ibom	Poultry	Broiler chicks	25000	25000	X	✓	Accredited agents
	Poultry	Layer chicks	25000	25000	X	✓	Accredited Agents
	Fish Fingerlings	Hetrobrancus	20000	20000	X	✓	Arader
	Fish Fingerlings	Clarias	10000	10000	X	✓	Contact farmer
	Feeds	Fish feed	10mt	10mt	X	X	Accredited agents
	Feeds	Poultry feed	12mt	12mt	X	X	Accredited agents
	Vaccines & Drugs	Gumboro	20000 doses	-	X	X	Accredited agents
	Vaccines & Drugs	Lasota	10000	-	X	X	Accredited Agents
	Vaccines & Drugs	NCDV	10000	-	X	X	-
Cross River	Vaccines & Drugs	ARV/DHLPP	250/305	250/305	X	✓	Local/foreign
	Vaccines & Drugs	Antibiotics/multivitamin	20/30	20/30	X	✓	Local
	Disinfectants	Dettol	50Cartons	50Cartons	X	✓	Local
	Disinfectants	Methylated spirit	50Cartons	50Cartons	X	✓	Local
Rivers	Poultry	Day Old Chicks	180	140	✓	X	Fmard
	Fish Fingerlings	Catfish (clarias)	9000	9000	✓	✓	Private farms
	Fish Fingerlings	Tilapia	2000	2000	✓	✓	Arac
	Feeds	Fish feed (Foreign)	100bags	100bags	X	X	Private
	Feeds	Fish feed (Local)	200bags	200bags	X	X	Private
	Vaccines & Drugs	-	-	6	X	X	Private

Table 4.15: Use of Farm Equipment in the Northwest Zone

Northwest Zone – Farm Equipment					
State	**Equipment Type**	**Equipment Name**	**Quantities Procured**	**Qty Distributed**	**Number of Beneficiaries**
Jigawa	Tractors	QLN654	50	23	23
	Tractors	Working tractors (power tillers)	165	-	-
	Work Bulls Implements	Ridgers	120	-	-
	Work Bulls Implements	Knapsack sprayers	4,500	1380	1380
	Agro Processing Equipment	Rice and wheat threshers	298	298	298
Kaduna	Sprayers	350	0	350	

Table 4.16: Use of Farm Equipment in the Northeast Zone

Northeast Zone – Farm Equipment					
					Number of Beneficiaries
Adam awa	Sprayers	Knapsack	0	0	0
	Storage Bins	Ten hours	0	0	0
	Agro Processing Equipment	Oxdrowplough	0	0	0
Taraba	Work Bulls Implements	Local breeds and Emcot plough	400 bulls and 200 ploughs	260	260
	Storage Bins	Concrete silo's	2	Farm office Centre for use	Farm office Centre for use
	Agro Processing Equipment	Cassava grater	1	Office use	Office use
	Rice thresher	Thresher	1	Office use	Office use
	Mobile multi crop	Thresher	1	Office use	Office use
	Hand guide rice reaper	Reaper	3	Office use	Office use
Bauchi	Tractors	DEUTZ -FAHARA grolus	40 units	40 farmers	40 farmers
	Tractors	DEUTZ-FAHARA grolux. 74 HP Power tillers	119	119	119
	Storage Bins	Water tank	200	200 fish farmers	200 fish farmers
	Agro Processing Equipment	Different type	110	110	110
	Water pump	314HP	1.500	1500 fadama farmers	1500 fadama farmers
	Tractors	DEUTZ -FAHARA grolus	40 units	40 farmers	40 farmers

Table 4.17: Use of Farm Equipment in the North Central Zone

North-Central Zone – Farm Equipment					
State	**Equipment Type**	**Equipment Name**	**Quantities Procured**	**Qty Distributed**	**Number of Beneficiaries**
Kwara	Sprayers	16ltrs	50pieces	50	50
Benue	Tractors	Joh deer	4no	0	0
	Tractors	Po	2no	66	66
	Work Bulls Implements	No bulls 4 set of equips	0	0	0
	Sprayers	None	0	0	0
	Storage Bins	None	0	0	0
	Agro Processing Equipment	Rice processing & garri	I set of rice & 2 sets of garri	50	50
Plateau	Storage Bins	Small silo	34	Yet to be allocated	0
	Agro Processing Equipment	Rice milling plant	1	Lafia rice Miller association	Many farmers

Table 4.18: Use of Farm Equipment in the Southwest Zone

Southwest Zone – Farm Equipments					
State	**Equipment Type**	**Equipment Name**	**Quantities Procured**	**Qty Distributed**	**Number of Beneficiaries**
Lagos	Tractors	Mahindi	5	25	25
	Sprayers	Maximus	100	70	70
	Storage Bins	Sgo	100	70	70
Ekiti	Tractors	Belarus style	Existing one	0	0
	Agro Processing Equipment	Cassava prof. Mil	0	0	0

Table 4.19: Use of Farm Equipment in the Southeast Zone

Southeast Zone – Farm Equipment					
State	**Equipment Type**	**Equipment Name**	**Quantities Procured**	**Qty Distributed**	**Number of Beneficiaries**
Imo	Tractors	SWARAJI	1	2500	2500
	Work Bulls Implements	None	0	0	0
	Sprayers	None	1500	1500 N-power	1500 N-power
	Oil press machine	None	More than 3500	-	-
	Cassava processing machine	None	More than 3500	-	-
	Fryers	None	0	-	-
Enugu	Tractors	75hp2000	10	10 farmers group	10 farmers group
	Tractors	75hp4000	4	6 farmers group	6 farmers group
	Tractors	john deere	5	2 farmers group	2 farmers group
	Tractors	Mf	2	2 farmers group	2 farmers group
Ebonyi	Tractors	None	40	40	40
	Sprayers	16 litre	1000,000	100,000	100,000
	Agro Processing Equipment	Rice miles	Five 5 big ones	200,000	200,000
	Abakaliki clustier	None	200	500,000	500,000

Table 4.20: Use of Farm Equipments in the South-south Zone

South-South Zone – Farm Equipments					
State	**Equipment Type**	**Equipment Name**	**Quantities Procured**	**Qty Distributed**	**Number of Beneficiaries**
Abia	Sprayers	None	200	200	200
Akwa-Ibom	Sprayers	Knapsacks	42	42	42
Cross-Rivers	Cross_River	Sprayers	Knapsack	100	100
Delta	Sprayers	16 liters sprayers	120	120	120
Bayelsa	Knapsack sprayer	Knapsack sprayer	100	100	100

Generally, the farm equipment were tractors, working bulls, agro-processing equipment, storage bins and water pump. Discussion with farmers indicated that although there was increased awareness on the use of improved farm equipment by farmers many of them were unable to access such improved equipment due to their non-availability and high cost.

5.0. CROP PESTS, DISEASES AND NATURAL HAZARDS

Wet season agricultural production in Nigeria is always faced with problems of pests, diseases and sometimes natural hazards as a result of the farmer's inability to control the vagaries of weather and climate that favour disaster and spread of diseases. During the 2018 Agricultural performance Survey (APS), notable disaster experienced by farmers werefloods across almost all the states in the country with more severe impact in states that are along the Niger, Benue and Gongola Rivers and their tributaries that add to the volume of water into them from rainfall and other water bodies. These floods destroyed farm lands, drawn farm animals and killed including humans. Notable examples are the floods in Gombe and Adamawa States in North East, Niger and Kogi in North central, Cross Rivers and Bayalsa in South-south, Kebbi and Jigawa, in North West states of the country.

There were also reports of scorching of plants due to the effect of irregular rainfall and dry spells after the rains began, especially in some northern parts of the country. In some parts of Southern parts rainfall started late, between May and June as against February and March of the previous years. This led to delayed planting with the attendant expectation of delayed harvest period. Supply of seed of early maturing crop commodities known to have drought tolerant varieties helped farmers to cope with the weather problem. After the rainfall established in the North west, North East, North Central, and some other parts, the rains became so torrential and intense that erosion, flood and water logging conditions in cropped lands were experienced late in August, when millet and maize were getting mature for harvest. It was so severe in places such as, Purokayo and Lakumna in Guyuk Local Government in Adamawa State, that some farmers even reported loss of farm produce to the tune of 70-100%. Consequent to water logging, some affected farms where no yield was anticipated had to be abandoned. In South-South, due to erosion, flood or water logging, in some local Governments in Cross Rivers State,any farm produce whether matured or not, was harvested to minimize losses. The most affected crops were the tuberous crops, cassava, potatoes and yams that rot in the presence of excess water. In some parts of South West and South-East, establishment of the rains was remarkable for its very high intensity and the attendant negative effects of flood, erosion, and water logging on farm lands and farms between August and September. Again these resulted in losses and untimely harvests of affected crops. A special report on the status and effects is given in a separate chapter.

Generally, crops pests and diseases were mainly those that have been recurrent over the years within the country (Tables 5.1). Incidences of pest infestation that were experienced in most field crops during the 2018 wet season included army worms with incidence and heavy severity on maize, millet and rice were reported in parts of Delta, Akwa Ibom, FCT, Nasarawa, Kwara, Jigawa, Enugu, Bauchi, Ekiti, Ebonyi and Gombe States. They caused an estimated 10% yield loss in the infested crops. The scorching effect of dry spell especially, that which occurred at the beginning of the planting season in northern parts of the country was exacerbated by this pests (army worms). Pestiferous activity during the wet season 2018 was wide spread across the nation from the South, in Akwa Ibom, Og un, Edo, and Rivers through the Central FCT to the Northern extremities of Borno and Gombe. The severity was moderate and the damage to the crops which is greater than 5% makes it a problem that should be given serious attention. Grasshopper, non-discriminatory and pestiferous to most field crops also, occurred in parts of Imo and it reported to be moderate in its severity.From Rivers, Akwa Ibom, Nasarawa, Imo Oyo and Kaduna States, stem borers were reported to be generally pestiferous to the staple crops, maize, millet, rice, and benniseed. Though the severity of infestation is reported as light, the consideration of an estimated yield loss of more than 10% of the total production of each affected crop in the state implies some heavy toll on the produce.

There were reports of increased infestation of fall armyworm (FAW) across Nigeria in an FAO study undertaken by IAR & T. FAW severity level was generally reported to be between moderate and high in the northern and southern states (Fig 5.1 and 5.2)

Table 5.1: Incidences of Pests, Diseases and Natural Disasters on Crops in Nigeria					
Affected Crop	**Pests/ Diseases/Hazard**	**Affected States**	**Severity***	**Yield loss Estimate (%)**	**Management Practice(s)**
Cassava	Leaf blight	Akwa-Ibom,Plateau, Imo,Oyo, Enugu	H	30-80	Cultural control, Spraying,Use of early planting
	Bush fowl	Localized	H	40	Integrated pest management
Cocoyam	Fungal disease	Localized	H	80	Cultural practices use of rodamila
	Leaf blight	Localized	H	40	Cultural control.
	Walting	Ebonyi	H	70	Use of of fungicide
Cotton	Aphids	Adamawa	M ,H	40 , 15	Insecticides
Cowpea	Grass hopper	Imo	L	10	Spraying of chemicals
	Aphids	FCT,Adamawa, Jigawa,Oyo, Kaduna	L - M	10-20	Spray with insec ticide ,cypamathrine and dimethoate
	Correid bug	Bauchi	H	Large hectarage	Use of chemicals
	Weevils	Nasarawa	L - M	8-23	Store in polythene bag, use karate insecticide
Groundnut	Leaf spot	Kogi	M	20	
	Corcorposal	Bauchi	Large hectarage	30	Cultural/chemicals
	Grundnut	Imo ,Ebonyi		10 ,10	Regular
	Aphids	Bauchi	M		Chemical/Cultural practices
	Poor pod formation	Nasarawa	M	20	Natural hazard
	False wire worm	Kaduna	L		Use of chemicals(wormforce)

* **Note:** H = Heavy; M = Moderate and L = light/low

Table 5.1 (continued): Incidences of Pests Diseases and Natural Disasters on Crops in Nigeria					
Affected Crop	**Pests/ Diseases/Hazard**	**Affected States**	**Severity***	**Yield Loss Estimates (%)**	**Management Practice(s)**
Maize	Stem borer	FCT,Akwa-Ibom, Cross River, Nasarawa,Imo, Oyo,Kaduna	L,M	10-20	Training, distribution of insecticides. Spraying with insecticide, use of insecticide Use of improve crop variety, handpicking and early planting, Intergrated pest magt.
	Weevils	Abia,Nasarawa, Eboyi	L ,H	10-48	Use of chemicals or pesticide
	Caterpillar attack	Delta ,AkwaIbom	L ,H	10	Pesticide
	Army worm	Delta ,AkwaIbom, FCT, Nasarawa,Kwara, Jigawa,Enugu, Bauchi, Ekiti, Eboyi, Gombe	L,H,M	10-40 5-80 10-25	Sniper, sensitization, application of insecticides. Integrated pest management.Hold max Emamectinbenzoate, Use of instrument.
	Cattles	Ekiti	H	25	
	Rodents	Oyo	H	80	Intergrated pest magt
	Weevils	Ebonyi	H	48	Use of pesticide
	Flooding	Lagos	H	74	Evacuation with caterpillar (h eavy duty machine)
Banana/ Plantain	Eel worm	Bayelsa	M	10-25	Treat suckers with insecticide

***Note:** H = Heavy; M = Moderate and L = light/low

Table 5.1 (continued): Incidences of Pests, Diseases and Natural Disasters on Crops in Nigeria					
Affected Resources/ Crops	**Pests/ Diseases/Hazard**	**Affected States**	**Severity***	**Yield Loss Estimates (%)**	**Management Practice(s)**
Millet	Stem borer	Adamawa, Plateau and Jigawa	L - M	10-30	Spraying with insecticide
	Grass hopper	Imo, Gombe	M, M	10, Large hectarage	
	Army worms	Jigawa,	H	74,75,76	
	Millet head smut	Bauchi	L,H	Large hectarage	Cultural seed treatment
Rice	Stem borer	Abia,Imo	H	10-25-50	Use of chemicals
	Weaver birds	Bayelsa, Abia, Akwa-Ibom	M	10-15	Use of nets, use of scarers ,use of chemicals
	Rice Blast	Adamawa,Jigawa, Kaduna,Gombe, Bauch,Kogi	M	20	Use of chemicals(cabrio dug.
	Army worm	Nasarawa, Sokoto	L,H	5-40	Insecticides
	Life rust	Delta	M	12-22	Chemical control
	Flooding iron toxicity	Nasarawa, kwara , Ebonyi	M	10 ,80	Use of lime and tolerant variety.
	Grass cutter	AkwaIbom			Crow/ use of trap.
	Dryness	Lagos	H	75	Evaluation
	Gall midge	Cross River	M	20	Spraying of pesticide
Sorghum	Head worm	Bauchi	H	Large hectarage	Chemical/Cultural control
	Sorghum blast	Jigawa	M - H	20-30	
	Smut	Adamawa	L	10	Seed treatment
Cassava	Cassava Mosaic	Taraba, Nasarawa, Oyo	M - H	20-35	Cattle should be ranched, use of free disease planting materials,use of tolerant variety .
	Mealy bug	Cross River, Enugu ,Ebonyi	M,H	20-40	Pulling off, Use of improved pesticide
	Bacterial blight	Oyo	L	10	Tolerant variety
	CBB	Imo	H,M	20-30	Early planting of improved crop variety
	Flooding	Ebonyi	H	80	Use of chemicals
	Rodent	Oyo	M	20	Integrated pest management

*** Note: H = Heavy; M = Moderate and L = light/low**

Table 5.1(continued): Incidences of Pests, Diseases and Natural Disasters on Crops in Nigeria					
Affected Crops	**Pests/ Diseases/Hazard**	**Affected States**	**Severity ***	**Yield Loss Estimates (%)**	**Management Practice(s)**
Soybeans	Rodents	Oyo	H	30	Intergrated pest magt
	White fly	Bauchi	M	Large hecterage	Use of chemicals
Potato Irish	Leaf blight	Plateau	H	30-40	Spraying with insecticides
Sweet Potato	Millipede attack	Nasarawa	M	20	Seed dressing chemicals
	Phythievedebonjern	Ebonyi	M	15	Use of chimecals
Tomato	Borer	Oyo	H	30	Use of insecticide
	Damping off	Kogi	M	20	
	Dying back		H	30	Use of improved variety
	Fuserium wilt	Imo, Bauchi	M - H	20-30	Early planting, Use of resistant varieties, crop rotation
	Nematodes	Bauchi, Kaduna	L	15, Fadama area	Cultural control
	White fly	Bauchi	H	Fadama area	Use of pesticides
Yam	Beetle	Delta, Bayelsa , Kwara, Oyo	L - M	10-30	Apron plus,Turadan,Treat seed with insecticide ,crop rotation
	Dry rots	Ebonyi	H	40	Use of chemicals
	Possella	Kwara	M	15	Agro chemicals/crop rotation
	Fungal leaf spot	Ebonyi	M	10.5	Use of chemicals
	Nematodes	Ebonyi	M	15	Use of chemicals
Beniseed	Termites	Bauchi	M	Large hectarage	Cultural/chemical control

* **Note:** H = Heavy; M = Moderate and L = light/low

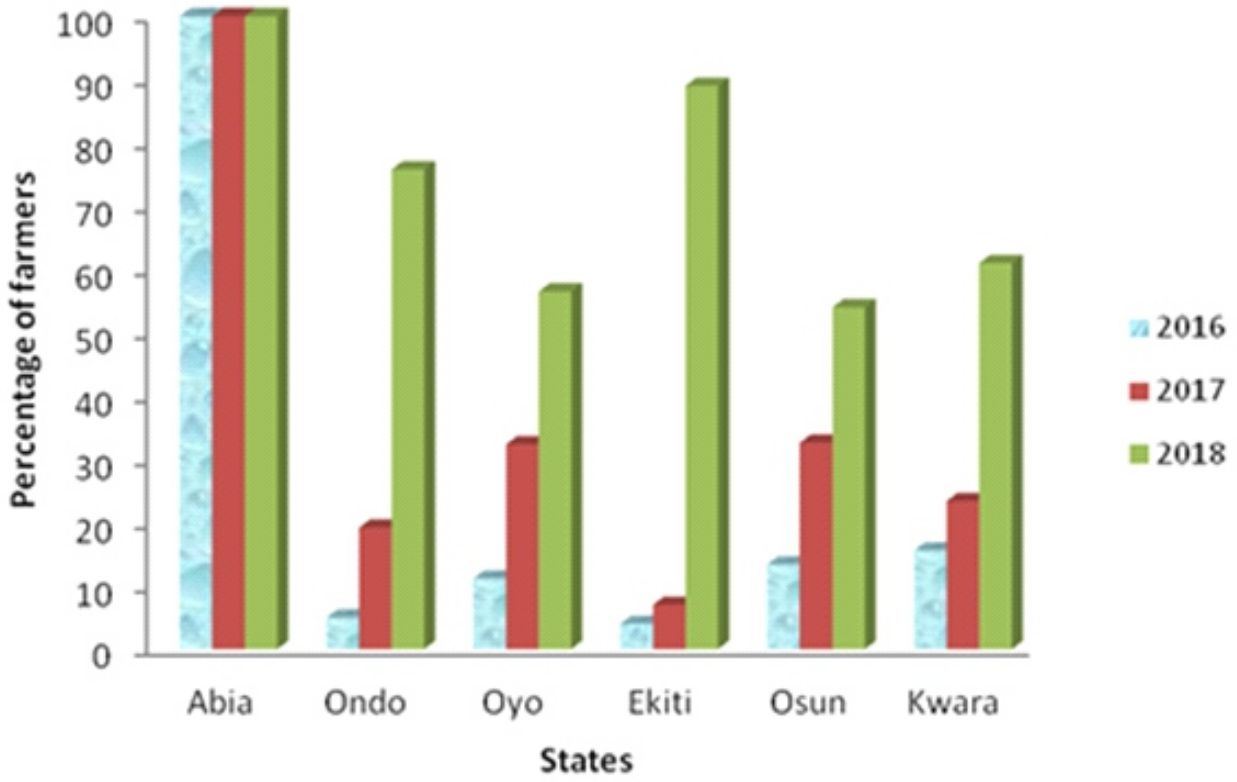


Fig. 5.1: Distribution of farmers based on first experience of Fall armyworm infestation in the South and Kwara (source: IAR&T, 2019)

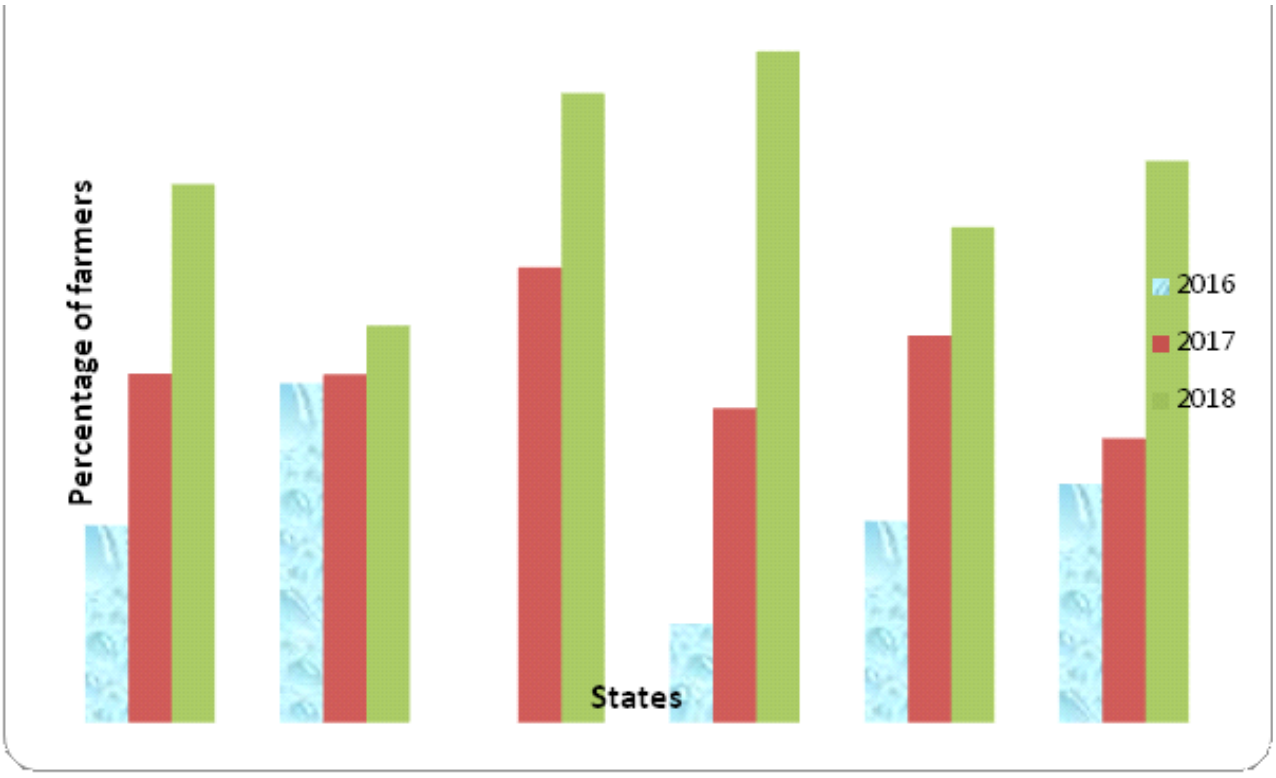


Fig. 5.2: Distribution of farmers based on first experience of Fall armyworm infestation in the North (source: IAR&T, 2019)

Other pests' and disease infections that occurred during the wet season of 2018 differed with crop species and location. Also there were differences in the severity of damages caused and the management practices employed. Generally, for low or high pests and disease infections, cultural and mechanically options were used, to manage the situation. Chemical pesticides were commonly adopted by farmers.

6.0 AGRICULTURAL MECHANIZATION

Agricultural mechanization is the use of equipment and machineries for agricultural productivity. The machines are expected to reduce drudgery and increase productivity. Increasing productivity through agricultural mechanization includes use of processing equipment/machines that add values to agricultural produce. Agricultural mechanization generally include not limited to use of tractors, power tillers, animal traction, and processing equipment.

Agricultural Performance Survey (APS) of 2018 captured tractor usage at both government and private sector levels, animal traction and processing equipment/mills availability all over the country.

6.1 Government Tractor Availability

The study showed that very limited number of tractors were available to the farmer by government. The factsaboutthis assertion is presented in the tables below.

Bauchi and Yobe state in the North East of Nigeria reported the availability of some Government tractors as presented in Table 6.1. The number of functional tractors available within the zone was seen to decrease when compared with 2017 while the number of non-functional tractors increased. The decreases resulted in a negative percentage change for most of the tractors. Due to the decrease in the number of functional tractors, the hectares of land cultivated was found to decrease as well.

In the North west zone (Table 6.2), only Kebbi state reported Government tractor availability. There was no functional tractor reported in both 2017 and 2018.

Government tractor availability in the North central zone was only reported by Plateau and Nassarawa as shown in Table 6.3. The Government tractor availability in the north central decreased within the years under review and the non-functional tractors increases. The peculiarity with this zone was that despite the reduction in the number of functional tractors available, the hectares cultivated by these tractors increases. An increase from 2.5Ha cultivated in 2017 and 3Ha cultivated in 2018 amounting to a percentage change of 20% area cultivated in Plateau state. Also in Nassarawa state, an increase from 10 – 21.3Ha was reported, 113% change. These increases in Hectares cultivated could be associated to the several number of tractors available, especially in Nassarawa and the excessive use of these tractors which could amount to total brake down in subsequent years. Plates 6.1-6.4 show some of the equipment in the field during the survey.

Plate 6.1: Some of the newly bought tractors in Jigawa State

Plate 6.2: Tractor implements

Plate 6.3: Power tillers

Plate 6.4: Combine harvester for crop processing

Table 6.1: Government tractor availability in the North East Zone

NORTH EAST ZONE										
		Functional			**Non-Functional**			**Ha Cultivated**		
State	**Tractor Type/Capacity**	**2017**	**2018**	**% Change**	**2017**	**2018**	**% Change**	**2017**	**2018**	**% Change**
Bauchi	Steyr(super)8075	N/A	N/A	N/A	20	20	0	N/A	N/A	N/A
	Ursus	N/A	N/A	N/A	6	6	0	N/A	N/A	N/A
	Massey Ferguson 375E	5	1	-80	0	9	-99.10	9150	5650	-38.25
	MF 375	29	15	-48.28	21	11	-47.62	5220	7250	38.89
Yobe	MF 375 (75HP)	36	36	0	4	5	25	6400	6200	-3.13
	Excavators	2	0	-100	0	2	-	6	0	-100
Average	**18**	**13**	**-57.07**	**8.5**	**8.83**	**-24.34**	**5194**	**4775**	**-25.63**	**18**

Table 6.2: Government tractor availability in the North West Zone

NORTH WEST ZONE										
		Functional			**Non-Functional**			**Ha Cultivated**		
State	**Tractor Type/Capacity**	**2017**	**2018**	**% Change**	**2017**	**2018**	**% Change**	**2017**	**2018**	**% Change**
Kebbi	MF 375E	N/A	N/A	N/A	1	1	0	N/A	N/A	N/A
	MF 375E	N/A	N/A	N/A	5	5	0	N/A	N/A	N/A
Average		**N/A**	**N/A**	**3**	**3**	**0**	**0**	**N/A**	**N/A**	**N/A**

Table 6.3: Government tractor availability in the North Central Zone

NORTH CENTRAL ZONE										
		Functional			**Non-Functional**			**Ha Cultivated**		
State	**Tractor Type/Capacity**	**2017**	**2018**	**% Change**	**2017**	**2018**	**% Change**	**2017**	**2018**	**% Change**
Plateau	4	5	3	-40	4	5	25	2.5	3	20
Nassarawa	John Deere, MF, New Holland andMahindra	4	3	-25	6	17	183.33	10	21.3	113
	Agricultural service and training center (ASTC)	287	268	-6.62	13	32	146.15	0	0	0
	Ficher	N/A	N/A	N/A	4	4	0	N/A	N/A	N/A
	Mahindra	N/A	N/A	N/A	5	5	0	N/A	N/A	N/A
	Steyr	N/A	N/A	N/A	9	9	0	N/A	N/A	N/A
	MF	N/A	N/A	N/A	11	11	0	N/A	N/A	N/A
	New Holland	N/A	N/A	N/A	3	3	0	N/A	N/A	N/A
Average		**98.67**	**91.33**	**-23.87**	**6.88**	**10.75**	**44.31**	**4.17**	**8.1**	**44.33**

From Figure 6.1, it is clearly indicated that Nassarawa state has the highest number of hectares cultivated and Non-functional tractors in 2017 and 2018. While plateau state has the highest number of functional tractor in the zone. The average number of functional Government tractors in the zone was 98.67 in 2017 and 91.33 in 2018, while the average hectares cultivated by these tractors were reported to be 4.17ha in 2017 and 8.1ha in 2018.

Delta state in the south south zone reported Government tractor availability (Table 6.4). There was a decrease of 50% change in the functional tractors and an increase of 75% change in the number of non-functional tractors. Hectares cultivated was also found to decrease by 12.04%.

Lagos, Oyo, Ekiti and Osun state reported availability of Government tractors in the south west zone (Table 6.5). Lagos state has Fiat, SWARAJ, John Deere and Mersey Fergusson brand of tractors. The Fiat and SWARAJ was functional in 2017 and 2018 and cultivated 300 and 242 Ha respectively in 2018. This amounts to a percentage change of 39.54 and 272.31 respectively. Conversely, the John Deere and MF tractors was 4 in 2017 and 3 in 2018 for functional ones while non-functional increased from 16 to 17 in 2017 and 2018 respectively. The area cultivated by the John Deere and MF tractors was also reported to have 19% decrease. This decrease in hectare is associated with the decrease in the number of functional tractors in the state.

However, Ekiti and Osun state reported quite some number of non-functional tractors. Though, Osun state has 8 functional tractors in 2017 and 2018, while the non-functional ones was 12 for 2017 and 2018. Ekiti has 16 different brands of tractors which were all reported to be non-functional.

The states that reported Government tractor availability in the south east zone as shown in Table 6.6 were Ebonyi, Imo, and Abia. Imo state has 1 functional tractor in 2017 and 2018 which cultivated about 15 and 20 hectares in 2017 and 2018 respectively. Abia state has 4 John Deere tractors and 2 power tillers. The tractor cultivated 450 and 652 hectares in 2017 and 2018 respectively, a percentage increase of 44.9%.

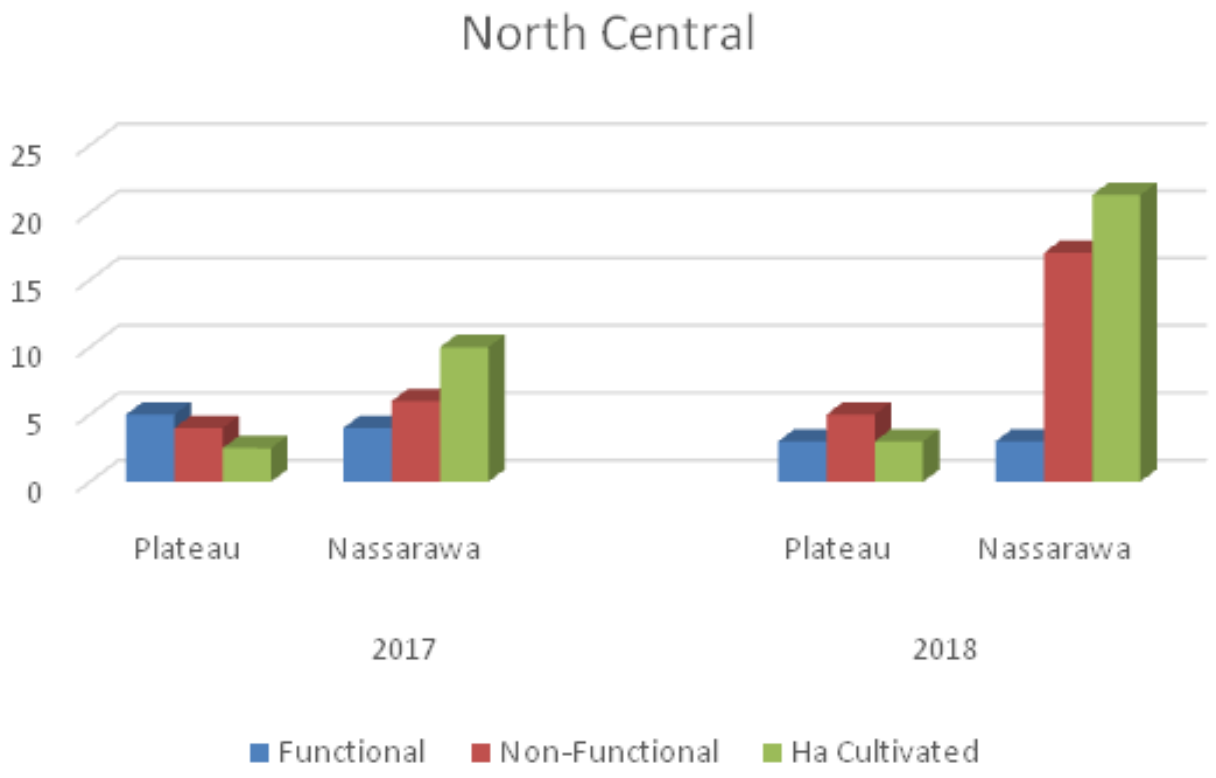


Figure 6.1: Government Tractor Availability in the North Central Zone

Table 6.4: Government tractor availability in the South South Zone

SOUTH SOUTH ZONE										
		Functional			**Non-Functional**			**Ha Cultivated**		
State	**Tractor Type/Capacity**	**2017**	**2018**	**% Change**	**2017**	**2018**	**% Change**	**2017**	**2018**	**% Change**
Delta	72	6	3	-50	4	7	75	216	190	-12.04

Table 6.5: Government tractor availability in the South West Zone

SOUTH WEST ZONE										
		Functional			**Non-Functional**			**Ha Cultivated**		
State	**Tractor Type/Capacity**	**2017**	**2018**	**% Change**	**2017**	**2018**	**% Change**	**2017**	**2018**	**% Change**
Lagos	Fiat1090	1	1	0	N/A	N/A	N/A	215	300	39.54
	SWARAJ958	1	1	0	N/A	N/A	N/A	65	242	272.31
	John Deere, MF	4	3	-25	16	17	6.25	10	8.1	-19
Oyo	MF 875	1	1	0	N/A	N/A	N/A	N/A	N/A	N/A
Ekiti	Mahindra	N/A	N/A	N/A	3	3	0	N/A	N/A	N/A
	Licher	N/A	N/A	N/A	2	2	0	N/A	N/A	N/A
	New Holland	N/A	N/A	N/A	8	8	0	N/A	N/A	N/A
	Ursus	N/A	N/A	N/A	2	2	0	N/A	N/A	N/A
	MF	N/A	N/A	N/A	1	1	0	N/A	N/A	N/A
	Bellarus	N/A	N/A	N/A	3	3	0	N/A	N/A	N/A
Osun	MF 434	8	8	0	12	12	0	N/A	N/A	N/A
Average		**3**	**2.8**	**-5**	**5.875**	**6**	**0.78125**	**96.66667**	**183.3667**	**97.61667**

Table 6.6: Government tractor availability in the South East Zone

SOUTH EAST ZONE										
		Functional			**Non-Functional**			**Ha Cultivated**		
State	**Tractor Type/Capacity**	**2017**	**2018**	**% Change**	**2017**	**2018**	**% Change**	**2017**	**2018**	**% Change**
Ebonyi	55 Hp, 75 Hp 95 Hp	38	0	-100	0	0	0	11500	13500	17.39
Imo	SWARAJ	1	1	0	N/A	N/A	N/A	15.0	20.0	33.33
	FIAT	N/A	N/A	N/A	1	1	0	N/A	N/A	N/A
Abia	John Deere /65hp	4	4	0	N/A	N/A	N/A	450	652	44.89
	Power tillers	2	2	0	N/A	N/A	N/A	20	20	0
Average		**11.25**	**1.75**	**-25**	**0.5**	**0.5**	**0**	**2996.25**	**3548**	**23.9025**

Generally, the outlook of Government tractor availability nationally reflected a decline in the numbers of functional tractors and an increase in the numbers of non-functional tractors. Also, there were instances where the hectares cultivated by these limited tractors were reported to increase. This is as a result of overburden use of these tractors which leads to break down over time. The increase in the numbers of non-functional tractors could be associated to the influx of unorthodox tractors (Licher, Ursus, Bellarus, SWARAJ, Ficher, QLN) into the country, lack of expertise and capability to maintain and operate these tractors. Most states no longer operate tractors for farmers' use, rather tractors are purchased and sold at competitive market price to interested farmers'.

6.2 Private Sector Tractor Usage

The tractor availability in the private sector appears to be better than the ones obtained in the public sector. The Tractor Owners and Hiring Facilities Association of Nigeria (TOHFAN) is a major stakeholder currently driving the tractor hiring services in Nigeria. The association covers almost all states of Nigeria, though, prominent in the north west of Nigeria. The association collaborates with international organizations like John Deere, Mahindra, Tata, New Holland among others. The collaboration is tailored at expanding the availability of tractors to all farmers' in Nigeria. The 2018 Annual Agricultural Performance Survey (APS) received data of available private tractors in Nigeria. The states that has available data are Kaduna, Kano, Katsina, Niger, FCT Abuja, Sokoto, Oyo, Kwara, Zamfara and Adamawa as presented in table 6.2a. The type of tractors available in these states are Mahindra, John Deere, Massey Fergusson and Case with capacities ranging from 50hp – 75hp.

Table 6.7 showed that private tractor availability is more in Kaduna, FCT, Niger and Kano. Kaduna state has about 162 private tractors operating there in 2017 and increased in 2018 to 439. FCT, Niger and Kano state has 40, 30 and 10 tractors. The number of non-functional tractors as reported by private operators is very insignificant across the states (Figure 6.2). The total number of functional private tractors within the states that reported them was found to be 275 in 2017 and 552 in 2018 while the number of non-functional tractors was 13 for both 2017 and 2018. This is an indication that the private tractor endeavor to maintain their tractors in order to reduce the number of non-functional tractors.

The number of hectares cultivated both in 2017 and 2018 was 68040 and 184420 in Kaduna state. The total number of hectares cultivated by private tractors within the mentioned states in 2017 and 2018 was 115500 and 231880 respectively. A remarkable percentage change of 100.8%.

More so, equipment like plough, harrow, ridgers, tipping trailers, boom sprayers, planter, seed drill, threshers and shellers for maize, millet, rice, wheat, sorghum and cowpea was procured. The number of these equipment was reported to increase in number procured in 2018 than in 2017.

Table 6.7: Private Sector Tractor availability in 2017and 2018 TOHFAN

State	Type of Tractor & Capacity (HP)	Functional		Non Functional		Hectares cultivated	
State	Tractor type/Capacity	2017	2018	2017	2018	2017	2018
Kaduna	Mahindra, John Deere, Case, TAK&M.F (50-75HP)	162	439	4	4	68,040	184,420
Kano	Mahindra &John Deere (60-65HP)	10	10	2	2	4,200	4,200
Katsina	Mahindra (60HP)	4	4	-	-	1,680	1,680
Niger	Mahindra &John Deere (60-75HP)	30	30	2	2	12,600	12,600
FCT	Mahindra &John Deere (60-75HP)	40	40	3	3	16,800	16,800
Sokoto	Mahindra &John Deere (60-75HP)	15	15	2	2	6,300	6,300
Oyo	Mahindra (60-75HP)	3	3	-	-	1,260	1,260
Kwara	Mahindra (60-75HP)	6	6	-	-	2,520	2,520
Zamfara	John Deere (60-75HP)	1	1	-	-	420	420
Adamawa	Mahindra (60-75HP)	4	4	-	-	1,680	1,680
Total		**275**	**552**	**13**	**13**	**115,500**	**231,880**

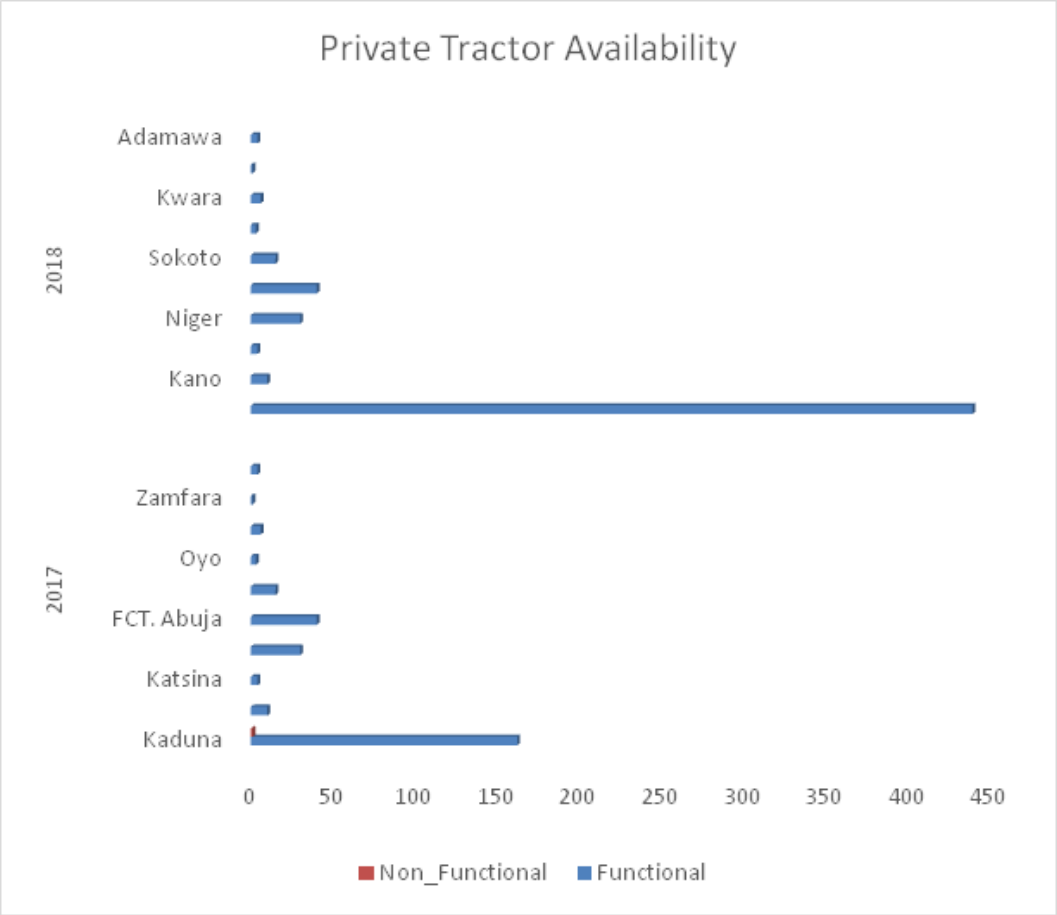


Figure 6.2: Private Tractor Availability in Nigeria

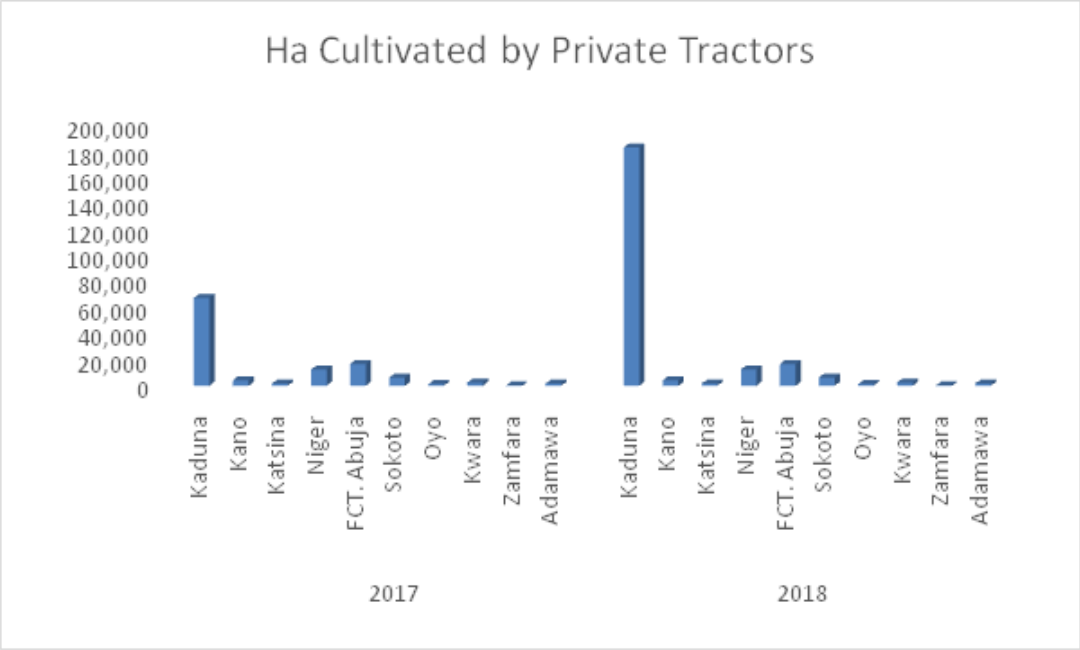


Figure 6.3: Hectares of Land Cultivated by Private Tractors

Table 6.8: Farm Equipment Situation in the State

State	Equipment Type	Quantity procured 2017	Quantity procured 2018
Kaduna	Plough	162	439
	Harrow	81	220
	Ridger	40	110
	Tipping Trailer	12	50
	Boom Sprayer	-	3
	Planter	-	2
	Ripper	-	1
	Seed drill	-	5
	Thresher(Maize, Rice, Millet, Wheat and Sorghum)	12	12
Kano	Plough	10	10
	Harrow	10	10
	Ridger	2	2
	Tipping Trailer	5	5
	Boom Sprayer	-	-
	Planter	-	-
	Ripper	-	-
	Seed drill	-	-
Katsina	Plough	4	4
	Harrow	4	4
	Ridger	-	-
	Tipping Trailer	3	4
	Boom Sprayer	-	-
	Planter	-	-
	Ripper	-	-
	Seed drill	-	-
Niger	Plough	30	30
	Harrow	2	3
	Ridger	-	-
	Tipping Trailer	2	4
	Boom Sprayer	-	-
	Planter	-	-
	Ripper	-	-
	Seed drill	-	-
FCT. Abuja	Plough	40	40
	Harrow	4	6
	Ridger	-	-
	Tipping Trailer	6	8
	Boom Sprayer	-	-
	Planter	-	-
	Ripper	-	-
	Seed drill	-	-
Sokoto	Plough	15	15
	Harrow	15	15
	Ridger	-	-
	Tipping Trailer	-	5
	Boom Sprayer	-	-
	Planter	-	-
	Ripper	-	-
	Seed drill	-	-

Oyo	Plough	3	3
	Harrow	-	-
	Ridger	-	-
	Tipping Trailer	1	1
	Boom Sprayer	-	-
	Planter	-	-
	Ripper	-	-
	Seed drill	-	-
Kwara	Plough	6	6
	Harrow	-	-
	Ridger	-	-
	Tipping Trailer	1	1
	Boom Sprayer	-	-
	Planter	-	-
	Ripper	-	-
	Seed drill	-	-
Zamfara	Plough	1	1
	Harrow	1	1
	Ridger	-	-
	Tipping Trailer	1	1
	Boom Sprayer	-	-
	Planter	-	-
	Ripper	-	-
	Seed drill	-	-
Adamawa	Plough	4	4
	Harrow	2	3
	Ridger	-	-
	Tipping Trailer	2	3
	Boom Sprayer	-	-
	Planter	-	-
	Ripper	-	-
	Seed drill	-	-

6.3 Animal Traction (Work Bulls) Availability

Animal traction is an aspect of agricultural mechanization that involves the use of cattle for agricultural production and this is prominent in the northern part of Nigeria. Table 6.9 presents the number of workbulls in some states across the country.

Animal traction usages were reported in Zamfara, Taraba, Plateau, Bauchi and Kaduna states. In Zamfara and Kaduna states percentage decrease in usage were 15.63% and 91% respectively for 2018 when compared with 2017. The decrease was reported to be associated with insecurity situation and cattle rustling in the 2 states. However, Taraba, Plateau and Bauchi reported an increase in animal traction usage with percentage increase of 30%, 22.5% and 100% in the 3 states respectively between 2017 and 2018..

The use of animal traction has its associated shortcomings, few among them are high cost of bull feeds, occurrence of pests/diseases, inadequate veterinary clinic/staff, cattle rustling, and inadequate grazing land.

Table 6.9: Number of Work Bulls Available

	No. of Work Bulls			
	2017	**2018**	**% Change**	**Remarks**
Zamfara	32000	27000	-15.63	Cattle rustling, high cost of feeds, incidences of diseases/pest, inadequate veterinary clinics/staff.
Taraba	200	260	30	Lack of proper training, Lack of funds to maintain the oxen.
Plateau	80	98	22.5	Distortion of peace in the state
Bauchi	600000	1200000	100	Poor capital for farm investment, More of efficient and improved farm tools required, Further training required on farming techniques (modern)
Kaduna	5000	450	-91	Cattle rustling, Lack of grazing land.
Average	**127456**	**245561.6**	**9.174**	

6.4 Processing Plants

Crop processing is another aspect of agricultural mechanization which ensures value addition to agricultural produce in order to extend the shelf-life, improve quality and maximize profit. Primary processing of crops include threshing, shelling and winnowing, while the conversion of crops from their original form to another like cassava flour, maize flour, gari, tomato paste are secondary processing. Plates 6.5-.6.7 are traditional and modern processing mills in some parts of Nigeria.Various forms of equipment, machines and machineries used for processing crops were reported across the nation.

Plate 6.5: Small Scale Processing mill

Plate 6.6: Traditional rice processing plant

Plate 6.7: Modern rice processing plants

Processing plants available in the North East as presented in Table 6.10 are Bauchi, Gombe, Taraba, Yobe and Borno states. Crops processed are rice, cassava, maize, acha. Gombe state has rice processing mills in Dogonruwa, Taura and Bajoga, each with a capacity of 4.8 metric tons per day. Maize processing plants are available in Jessy, Biller and Tesla with operating capacity of 2.5 Mt/day. Borno state has processing mills for grains, seeds and rice with operating capacities of 20, 24 and 12 Mt/day respectively.

Table 6.10: Processing Centers in the North East Zone

Processing Center	Crop Processed	Location	Operating Capacity
Urban rice mill	Rice	Bauchi	N/A
Golpokki rice mill	Rice	Bauchi	N/A
Fadama III rice mill	Rice	Bauchi	N/A
Afra rice mill	Rice	Bauchi	N/A
Goria farm Ltd.	Maize/rice	Zigau	N/A
Acha processing mill	Acha	Bagoro	N/A
Nadabo	Maize/rice	Bauchi	N/A
Rice mill	Rice	Dogonruwa, taura, bajoga	4.8
Hammer mill	Maize	Jessy, billier, balanga, talasa	2.5
Rice mill	Rice	BCGA Gombe, zambuk, jurara	N/A
Borno L.S.A.	Cereal	Across the state	N/A
Bubaram/gakoko NPFS	Grains	Badeto pets	20
Dazigau CDA proccoide	Seeds	Dazigau	24
Guba IFAD CDA proc	Rice milling	Guba-bursar	12

Note: Daily operation is taken to be 8 hours.

In the North West, Kaduna, Jigawa, Zamfara and Kebbi state reported the availability of some processing plants. In Kaduna state, Olam Mills process grains for livestock with 50,000 metric tonnes in a day. Jigawa hosts 3 rice processing plants and a flour mills. The rice mills has a processing capacity of 75 metric tons. Quite a number of rice processing mills, cotton and ground nut are present in Zamfara state (Table 6.11).

Table 6.11: Processing Centers in the North West Zone

NORTH WEST ZONE					
State	**Processing Center**	**Crop Processed**	**Location**	**Operating Capacity (Mt/day)**	**Remarks**
Kaduna	Falke Oil Mill	Oil extraction from pulses	Behind trade fair complex unguwankaji	N/A	
	Mamia Oil	Oil extraction from pulses	Kutungare airport road kaduna	N/A	
	Olam Mills	Grains	Kaduna-Abuja Express way	50,000	
Jigawa	Majestic	Rice	NA	15	
	3 brothers	Rice	NA	35	
	Danmodi	Rice	Kaffihausa	25	
	Jifato Flour Mills	Wheat	NA	NA	
Zamfara	Mai DubunSuleRice	Rice	Gusau	Na	
	Gomnati Rice	Rice	Gusau	Na	
	Rufa'i Farms	Rice	T/mafara	Na	
	Birnin-tudu	Rice	Birnintudu	Na	
	Rini	Rice	Rini	Na	
	Ginneries	Cotton	Gusau	Na	
	Oil mills	Cotton/g/nut	Gusau	Na	
Kebbi	LabanaRice Mills	Rice	B/kebbi	16	
	WACOT	Rice	Argungu	NA	

Note: *Daily operation is estimated as 8 hours.*

The north central states that reported processing plants were Kwara, Plateau, Nassarawa, Benue and Taraba states as presented in Table 6.12. The plants reported by Kwara state are generally medium scale that process crops like rice, yam into flour, cassava into Garri and size reduction machines (Hammer mills). Plateau state also reported some small to medium scale plants that process crops like rice, acha, coffee, potatoes into chips and honey. Nassarawa state process mainly rice with a total operating capacity of the plants to be 40.9 metric tons in a day. Benue is another state that reported the processing of cassava into flour and garri and rice processing plants with operating capacities of 12 metric tons per day. Lastly, Taraba state in the north central zone reported processing plants that process 80 metric tons of cassava into flour, rice plants with overall operating capacities of 95 metric tons in a day and 30 metric tons of cassava is processed into garri daily.

Table 6.12: Processing Centers in the North Central Zone

NORTH CENTRAL ZONE					
State	**Processing Center**	**Crop Processed**	**Location**	**Operating Capacity (Mt/day)**	**Remarks**
Kwara	EbayitoBokunjimsc	Rice mill	Shonga	Small scale	
	Talk kuremsc	Yam flour	Kaima	Small scale	
	Micro processing centre	Garri processing	Bukaru	Small scale	
	Emi Benu women G.P	Hammer mill	Pategi	Small scale	
	Agbeleremsc	Garri processing	Ilofu	Small scale	
	Agbelere cassava msc	Garri processing	Okeadiniilo	Small scale	
	Ifedapo	Garri processing	Osi	Small scale	
	Owonwami	Garri processing	Onijo	Small scale	
Plateau	Grand cereals foil Mill	Oil Mill	Angudi	Na	
	ECWAFeeds	Animal feeds	Buruku	Na	
	TimtaliRice Mill	Rice	Lantang	Na	
	Pyerat	Acha	Jos	Small scale	
	Kisolo	Acha	Bassa small scale	Small scale	
	Kopal	Coffee	Dadinlamba	Medium scale	
	Kim coffee	Coffee	Buruku	Medium scale	
	Dama rice mill	Rice	Shendam	Medium	
	Lovely honey	Potato chip	Jos	Medium	
	Wec honey	Honey	Jos	Small scale	

Nassarawa	**Gem parboiling centre**	**Rice**	**Lafia rice mill**	**5.6**	
	Ripmapp incubation plant	Rice	Lafia	12	
	Kumazy plant	Rice	Keffi, S/gari	12	
	Beguwa Nig. LTD	Rice	Nassarawa	2.4	
	Olam Integrated Rice Mill	Rice	RukubiDoma	8.4	
Benue	Bee rice processing	Rice	Fiidimakurdi	2	
	Wurukum rice processing	Rice	Makurdi	2	
	Wadata rice mill	Rice	Makurdi	2.5	
	North bank rice mill	Rice	Markudi	2.5	
	Aliade rice mill	Rice	Aliade	3	
	Gboko rice mill	Rice	Gboko	Not yet verified	
	Buruku rice mills	Rice	Buruku	Not yet verified	
	Adikpo rice mill	Rice	Adukpo	Not yet verified	
	Mu Cassava processing	Garri	Tyo-mu near mkd	Not verified	
	Taraku cassava processing	Garri	Taraku	Not verified	
	Gube processing group	Garri	Near adikpo	Not verified	
	Oni garri group	Garri	Otukpo	Not verified	
Taraba	Dalto	Cassava flour	Jalingo	50 Mt	
	Al-Ghanzaki	Rice	Jalingo	25	
	AL Umma Rice	Rice	Jalingo	30	
	FTK Flour	Cassava flour	Jalingo	30	
	Ujiten Processing Centre	Gari	Wukari	30	
	VCDP processing centre	Cassava	Koppi	20	
	VCDP processing centre	Rice	Wukari	20	

Note: Daily operation is estimated as 8 hours.

Delta, Bayelsa, Rivers, Edo and Cross-Rivers states reported processing plants in the south south zone (Table 6.13). Processing plants in Delta state mostly process cassava into Garri while Bayelsa process cassava into garri and starch. Rivers state reported processing plants that process cassava to Fufu, Garri, High Quality Cassava Flour (HQCF), and Plantain into flour. The combine operating capacities of these plants are 20 metric tons per day. Edo state has processing plants that process crops like plantain, beans, and yam into flour. Cassava into starch, HQCF, Fufu, and Garri. Then Palm fruits into Palm oil. Each of the aforementioned plants has a processing capacity of 1 Mt/day.

Table 6.13: Processing Centers in the South South Zone

SOUTH SOUTH ZONE					
State	**Processing Center**	**Crop Processed**	**Location**	**Operating Capacity (Mt/day)**	**Remarks**
Delta	Emuhugarri processing	Garri	Emuhu	N/A	
	Ebugarri processing	Garri	Ebu	N/A	
	Okpanamgarri processing	Garri	Okpanam	N/A	
	EkukuAgborgarri processing	Garri	Ekukuagbor	N/A	
	Aladja chip	Chips	Aladja	N/A	
Bayelsa	Kalabar Cassava processing	Garri/starch	Malabar community	N/A	
	Ebebelebiri Cassava Processing	Garri/Starch	Ebebelebiri	N/A	
	Otuegila Cassava Processing center	Garri/Starch	Otuegila	N/A	
	Asangbene Cassava Processing Center	Garri/Starch	Asaingbene	N/A	
Rivers	Ego agro processing centre	Odorless fufu, high quality cassava flour	Rukpokwu	8	

	Rossy endeavor	High quality cassava flour	East/west rdahoada	8	
	Greanama springs agro processing CICS ltd	Plantain flour, garri	Okochiri, okrika	4	
Edo	Inotech food	Plantain flour and beans flour	Benin	1	
	Santa Maria foods	Yam flour	Benin	1	
	Idaewor farmers	Starch, HQCF, Fufu (instant foofoo)	Fugar	1	
	Amidai farms	HQCF	Iruekpe	1	
	Lentus food	HQCF	Ugoorhionmwon	1	
	Emesomigarriproc	Garri	Uzarie	1	
	Della food	Palm oil	Benin	1	
	Madam Edna	Palm oil	Igueben	1	
	Bokesh farm	Palm oil	Igarra	1	
	Believe farms	Palm oil	Owan, Benin - Akure Rd	1	
	Imafidon	Palm oil	Owan, Benin - Akure Rd	1	
	Nosak farms	Palm oil	Okhiri, off benin - abraka Rd	4	
	Paul Friday	Palm oil	Ibillo, akoko Edo LGA	1	
	Idele farms	Palm oil	Ebele, igueben LGA	1	
	Madam osagie	Palm oil	Igueka, Benin -	1	

Rivers	**Goddy logo farms**	**Cassava**	**Bebi**	**28**	
	Goddy logo farm	Rice	Bebi	8	
	MP rice farm	Rice	Bansara	6	
	Ekureku women mpcs	Cassava	Ekureku	0.3	
	Sunday etengbassey mill	Cassava	Idomi	0.4	
	MichealEtaba	Rice	Ochon	0.33	
	Enangegor	Oil palm	Ovonum	0.3	
	Ayukndifonmpara	Cassava	Akparabong	0.3	

Note: Daily operation is estimated as 8 hours

South East zone, Ebonyi, Enugu, Imo, Abia and Anambra reported some processing plants for crops like rice, cassava, and palm fruits (Table 6.14). Ebonyi state has about 200 clusters of rice processing mills, each with capacity to process 1 metric ton per day, while the cassava processing plant has capacity of 3 metric tons per day. Enugu state has 2 rice processing plants with capacity of 34.4 and 32 metric tons per day. In Imo state the processing plant for palm oil has capacity for 11 metric tons per day, while the cassava processing mill has capacity of 15.5 metric tons per day. Abia state process cassava tuber to garri and HQCF, rice and palm fruits into palm oil. The operating capacities of these plants are between 2-5 metric tons in a day. Moreover, Anambra state also reported some processing plants that process cassava, rice and palm fruits with operating capacities of 8, 5 and 10 metric tons per day respectively.

Table 6.14: Processing Centers in the South East Zone

State	Processing Center	Crop Processed	Location	Operating Capacity (Mt/day)
Ebonyi	Abakaliki rice cluster (200)	Rice	Abakaliki town	1
	Iboko	Rice	Ibokoizzi	5
	Ikwo	Rice	Ikwo	5
	Edda	Rice	EddaAfikpo	5
	Iboko (unido)	Rice	Ibokoizzi	3
	OhaukwuNgbo (unido)	Rice	Ekwashi NGBO	3
	Umuezzeaka NGBO OHaukwu	Cassava	Umuezzeaka NGBO	3

Enugu	**tara agro**	**Rice**	**Ogurugu**	**34.4**
	okumerere farm	Rice	Adaui	32
Imo	Numo farms (Big)Ltd	Oil palm	Ehime Mbano	5.5
	Uju-Nwa farms ltd	Oil palm	Nkpor - Okpuala	5.5
	Ohaimo Farms NIG Ltd	Cassava	Isu LGA	5.5
	Ezedinma FMCS	Oil palm	UmunumoUmueze	N/A
Abia	Nkwoebi cassava mill	Cassava (garri)	Ohufia	2
	Mbom cassava mill	Cassava (HQCF)	Umuahia	4
	Bende rice mill	Rice	Bende	3.5
	Etitiugwuele oil mill	Oil palm fruit	Bende	5
	Atayabam rice mill	Rice	Arochukwu	4
	Etitiakanu oil mill	Oil palm fruit	Ugwunagbo	3
	Uzuokoli rice mill	Rice	Bende	3.5
	Ebem cassava mill	Cassava (garri)	Ohafia	4
Anambra	Cassava processing Center	Cassava	Awka south	8
	Palm oil processing center	Palm fruits	Awka south	5
	Rice processing center	Rice	Dunukofia, Anambra east	10

Note: Daily operation duration is estimated as 8 hours.

In the South West zone, Ekiti, Oyo and Ogun states have some processing plants (Table 6.15). Ekiti state has Cassava processing plants that process 3 metric tons of cassava into garri; rice processing plants with operating capacity of 45 Mt/day and palm fruits processing plants of 45 Mt/day for palm oil. Oyo state has capacity for processing 20 metric tons of maize and 2.5 metric tons of each of soya bean and cowpea daily. In Ogun state, some cassava processing plants have capacities for cassava flour (644 Mt/day), ethanol (250 Mt/day), garri and fufu (16 Mt/day), and starch (150 Mt/day).

Table 6.15: Processing Centers in the South West Zone

State	Processing Center	Crop Processed	Location	Operating Capacity (Mt/day)
Ekiti	Cassava processing machine	Garri	Kuomo Ado	3
	Rice processing machine	Rice	Isanilupeju	45
	Palm oil processing Plant	Palm oil	Hero Ado	45
Oyo	Oysaded seed	Maize	Saki	20
	Oysaded seed	Soya bean/cowpea	Saki	2.5
Ogun	Deban faith	Cassava flour	Abeokuta	4
	Thai farms international	Cassava flour	Ososa	240
	Green tech Nig.	Cassava flour	Agbara	400
	Allied Atlantic Distillery	Ethanol	Igbesa	250
	Bloomed LTD	Garri&fufu	Ijebu	4
	Matsol Agro Allied LTD	Garri&fufu	Siun	12
	Harvest field	Starch	Ajura	150
	El-Rasheed	HQCF	Isiun	12
Ondo	Cassava processing	Cassava	OyinAkoko	N/A
	Cassava processing	Cassava	Oba akoko	N/A
	Cassava processing	Cassava	Koyolaolokuta	N/A
	Cassava processing	Cassava	Italoorun	N/A
	Cassava processing	Cassava	Bajaire	N/A
	Cassava processing	Cassava	Wasimi	N/A
	Cassava processing	Cassava	Okeluse	Nil
	Cassava processing	Cassava	Komawalle-olugi	Nil
	Cassava processing	Cassava	Odigbo	Nil
	Cassava processing	Cassava	Okitipupa	Nil
	High quality cassava flour	Cassava	Owo	Nil

Note: Daily operation duration is estimated as 8 hours.

Generally, there was an increase in crop processing activities across Nigeria. The general increase in processing plants all over Nigeria could be attributed to the awareness for enhanced productivity, the need to increase shelf-life and better market price as a result of value addition. Government policy on agriculture has also greatly contributed to the increase in processing plants.

6.5 Cost of Tillage Operations

Tillage operations are activities conducted in order to prepare the soil for better growth. Such activities include land clearing, ploughing, harrowing and ridging. The cost of these tillage operations across Nigeria is reported in this section.

The cost of land clearing farm operations in Borno state increased generally. Land clearing, ploughing, harrowing and ridging increased with percentage increases of 25%, 20%, 20%, and 50% respectively. This increase could be attributed to the curb and control of Boko Haram activities in the state. However, cost of ridging was found to decrease by 37.5% in Bauchi state while ploughing remained the same (Table 6.16).

Table 6.16: Cost of Tillage Operations in the North East Zone

North-East Agro- Ecological Zone												
	Land Clearing (₦/Ha)			Ploughing (₦/Ha)			Harrowing (₦/Ha)			Ridging (₦/Ha)		
State	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Adamawa	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bauchi	1500	2500	66.67	15000	15000	0	N/A	N/A	N/A	16000	10000	-37.5
Borno	2000	2500	25	2500	3000	20	2500	3000	20	2000	3000	50
Gombe	600	1000	66.67	5000	6000	20	N/A	N/A	N/A	5000	5000	0
Yobe	15000	15000	0	25000	25000	0	15000	15000	0	N/A	N/A	N/A
Z. Mean	**4775**	**5250**	**39.585**	**11875**	**12250**	**10**	**8750**	**9000**	**10**	**7666.667**	**6000**	**4.166667**

Figure 6.4 clearly showed that cost of ploughing operation per hectare in the zone is high. Yobe state reported N25,000 in both 2017 and 2018, closely followed by Bauchi that reported about 15000 in 2018 and 2017. The cost of tillage operation looks relatively stable in Borno state, which could be associated to the activities of Boko Haram.

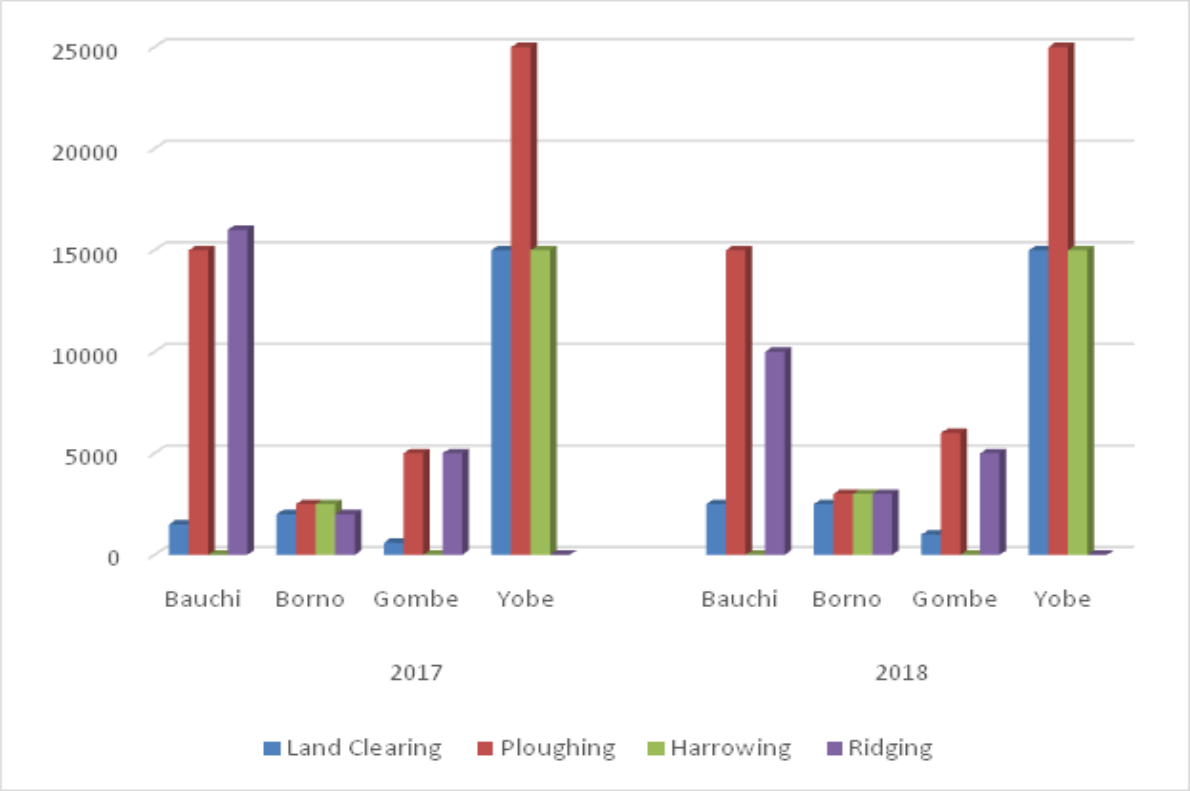


Figure 6.4: Cost of Tillage Operation in the North East Zone

The cost of tillage operations in the Northwest as reported by Jigawa, Kaduna, Katsina, Kebbi, and Sokoto remains relatively the same as 2017. Zamfara state reported an increase in the cost of land clearing by 16.67%. This increase could be attributed to some virgin farm lands that was cleared for farming activities (Table 6.16).

Table 6.16: Cost of Tillage Operations in the North West Zone

North-West Agro-Ecological Zone												
	Land Clearing (₦/Ha)			Ploughing (₦/Ha)			Harrowing (₦/Ha)			Ridging (₦/Ha)		
State	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Jigawa	500	500	0	15,000	15,000	0	10,000	10,000	0	10,000	10,000	0
Kaduna	500	700	40	12000	12000	0	8000	8000	0	8000	8000	0
Kano	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Katsina	700	700	0	18000	18000	0	15000	15000	0	20000	20000	0
Kebbi	1000	1000	0	20000	20000	0	15000	15000	0	15000	15000	0
Sokoto	5000	5000	0	8000	10000		6000	8000		15000	15000	0
Zamfara	3000	3500	16.67	8000	8000	0	8000	8000	0	8000	8000	0
Z. Mean	**1783.333**	**1900**	**9.445**	**13,500**	**13,833**	**0**	**10,333**	**10,667**	**0**	**12,667**	**12,667**	**0**

Cost of ploughing and ridging operation can be seen from Figure 6.5 to be relatively high. Katsina can be seen to have the highest cost of ridging per hectare 20,000 in 2017 and 2018 while Kebbi state has the highest cost of ploughing (20000) in both 2017 and 2018. Harrowing operation in the zone cost less due to use of animal traction.

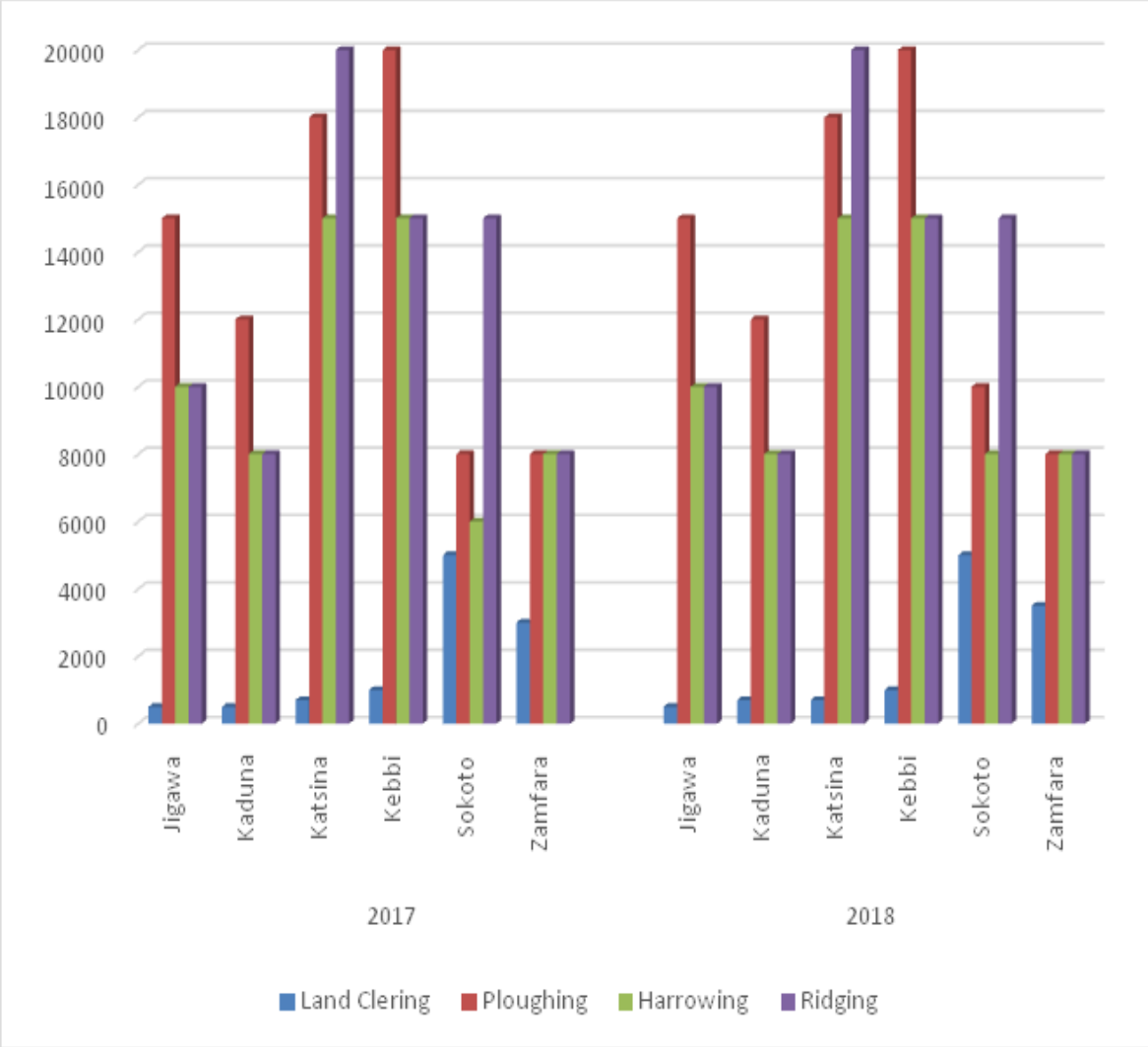


Figure 6.5: Cost of Tillage Operation in the North West Zone

In the Northcentral, the cost of tillage operations in Kwara state remains the same as 2017. Nassarawa state reported an increase in land clearing and ridging from 15,000 in 2017 and 16000 in 2018 and 12,000 in 2017 and 13,000 in 2018 respectively. Also, Niger state reported an increase of 20% in land clearing and harrowing, while ploughing and ridging remains constant. Plateau state reported a decline in the cost of land clearing by 23.1% change.

Table 6.17: Cost of Tillage Operations in the North Central Zone

North-Central Agro-Ecological Zone												
	Land Clearing (₦/Ha)			Ploughing (₦/Ha)			Harrowing (₦/Ha)			Ridging (₦/Ha)		
	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Kogi	N/A	120000	-	N/A	25000	-	N/A	25000	-	N/A	25000	-
Kwara	140,000	140,000	0	20,000	20,000	0	15,000	15,000	0	20,000	20,000	0
Nassarawa	15,000	16,000	6.7	20,000	20,000	0	15,000	15,000	0	12,000	13,000	8.3
Niger	1000	1200	20	1500	1500	0	1000	1200	20	1000	1000	0
Plateau	65000	50000	-23.1	N/A	N/A	N/A	N/A	N/A	N/A	1000	1000	0
Z. Mean	**55250**	**65440**	**0.9**	**13833.33**	**16625**	**0**	**10333.33**	**14050**	**6.67**	**8500**	**12000**	**2.075**

Figure 6.6 clearly showed that cost of land clearing is huge in the north central zone with Kwara and Plateau state been the highest in both 2017 and 2018. The cost of land clearing in Kwara and Plateau state were 140,000 and 65000 in 2017 and 140000 and 55000 in 2018 respectively.

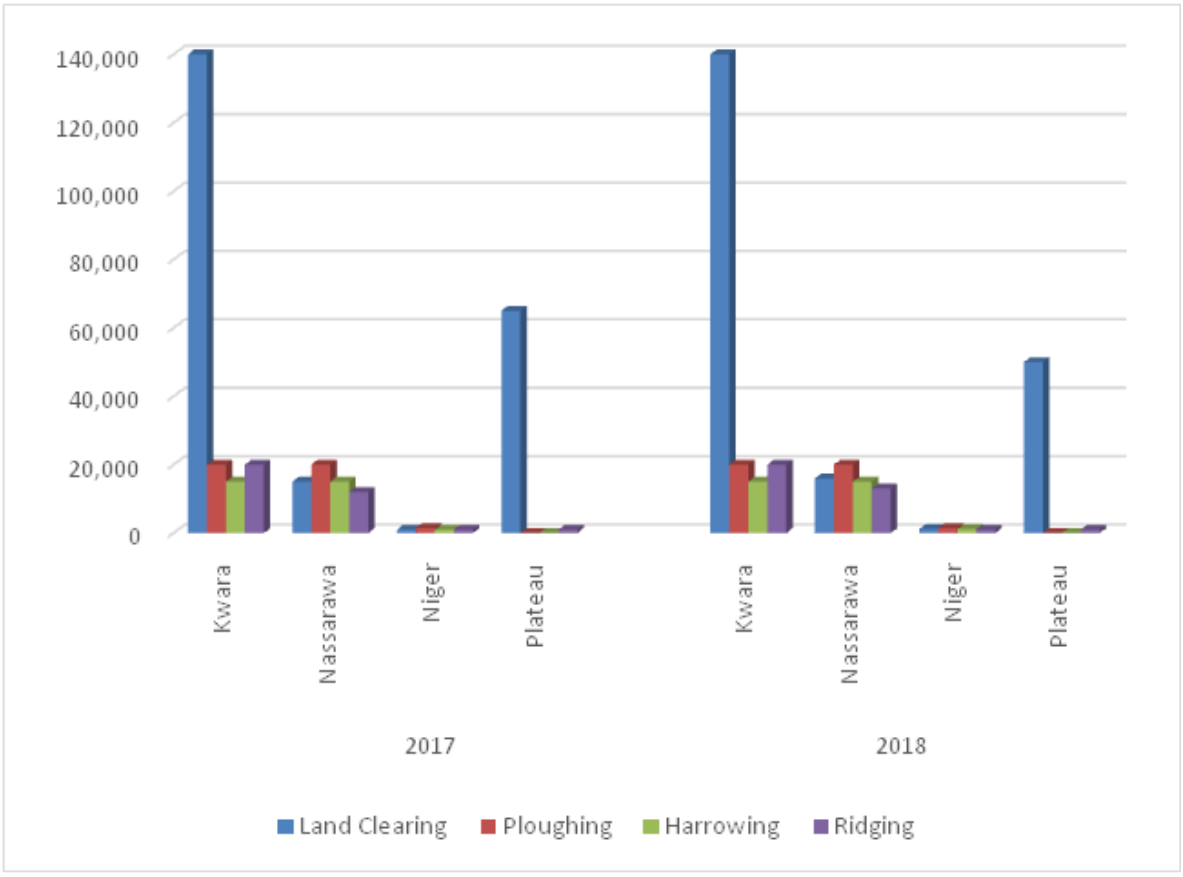


Figure 6.6: Cost of Tillage Operation in the North Central Zone

The cost of tillage operations in the South west was seen to have a general increase. Ekiti, Lagos and Osun states reported a percentage increase of between 8% and 55% for all tillage operations. Only, Ondo state reported a steady increase in the cost of ploughing, harrowing and ridging, however, a 33.33% increase was reported for land clearing (Table 6.18).

Table 6.18: Cost of Tillage Operations in the South West Zone

South-West Agro-Ecological Zone												
	Land Clearing (₦/Ha)			Ploughing (₦/Ha)			Harrowing (₦/Ha)			Ridging (₦/Ha)		
State	2017	2018	% Change	2017	2018	% Change	2017	2018	% change	2017	2018	% Change
Ekiti	N/A	N/A	N/A	12000	17000	41.67	8000	12000	50	8000	12000	50
Lagos	20000	25,000	25	20000	25,000	25	20000	25,000	25	25,000	30,000	25
Ogun	40000	50000	25	15000	20000	33.33	15000	20000	33.33	15000	10000	-33.33
Ondo	1500	2000	33.33	2000	2000	0	2000	2000	0	2000	2000	0
Osun	50000	60000	20	20000	25000	25	N/A	N/A	N/A	37000	40000	8.11
Z. Mean	**27875**	**34250**	**25.85**	**13800**	**17800**	**25**	**11250**	**14750**	**27.089**	**17400**	**18800**	**9.96**

Figure 6.7 showed that cost of land clearing was also high in the zone. Ogun and Osun state are the states that has the largest cost of 40000 and 50000 in 2017 and 50000 and 60000 in 2018 respectively. Ploughing operation was seen to be the next expensive cost of tillage operation in the zone. Osun and Lagos state has the highest in the zone 35000 and 23000 in 2017 and 39000 and 29000 in 2018 respectively. Conversely, the cost of tillage operation in Ondo state was reported to be low for all operations in both 2017 and 2018.

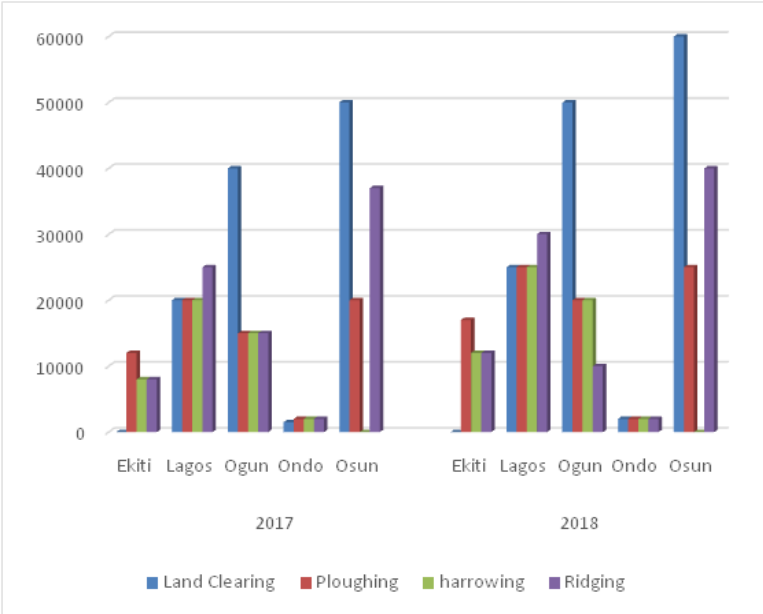


Figure 6.7: Cost of Tillage Operation in the South West Zone

The cost of tillage operation in the South east zone increasedacross the states. Though, Enugu state reported a stable cost for land clearing while in other states, there was a percentage change between 6% - 33.33% (Table 6.19).

Table 6.19: Cost of Tillage Operations in the South East Zone

South-East Agro Ecological Zone												
	Land Clearing (N/Ha)			Ploughing (N/Ha)			Harrowing (N/Ha)			Ridging (N/Ha)		
State	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Abia	2000	2500	25	3000	3500	16.7	N/A	N/A	N/A	N/A	N/A	N/A
Anambra	1500	2000	33.3	1500	2000	33.3	1500	2000	33.3	1700	2500	47.1
Ebonyi	N/A	N/A	N/A	30000	40000	33.33	30000	40000	33.33	30000	40000	33.33
Enugu	3500	3500	0	N/A	N/A	N/A	N/A	N/A	N/A	3000	3500	16.67
Imo	1500	1600	6.67	1500	1700	13.33	1500	2000	33.33	1500	2000	33.33
Z. Mean	**2125**	**2400**	**16.24**	**9000**	**11800**	**24.165**	**11000**	**14666.67**	**33.32**	**9050**	**12000**	**32.61**

The cost of tillage operation in the South east zone as presented in Figure 6.8 is high, especially for ploughing, harrowing and ridging. Anambra state has the highest cost of ridging in the zone for both 2017 and 2018 to be 30000 and 40000 respectively. Ploughing and harrowing is prominently practiced in Ebonyi state and has the highest cost in the zone to be 30000 and 40000 respectively. Enugu state has the least cost of tillage operations, this could be attributed to their soil that is rich in coal, hence, reduce agricultural activities.

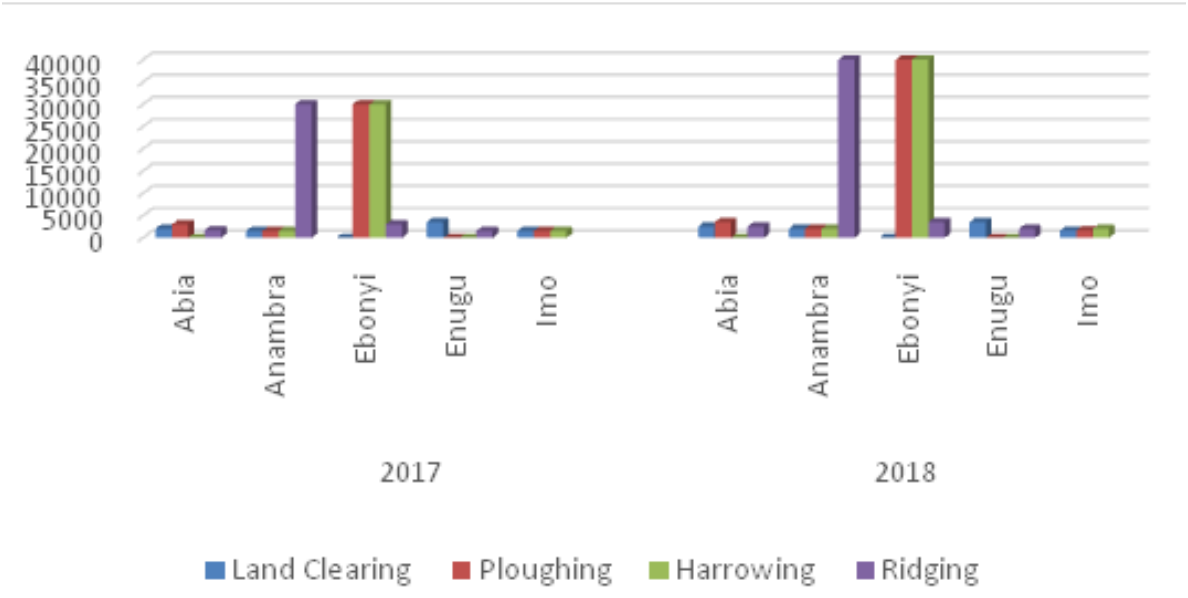


Figure 6.8: Cost of Tillage Operation in the South East Zone

Generally, the cost of tillage operations across Nigeria was found to have increased. The reported increase could be associated to the increasing number of Nigerians that engages in agricultural production, Government policies that encourages the practice of agricultural production, and the awareness of value addition to agricultural produce.

6.6 Grain Reserves

Farmers have recognized the need to manage stocks of grains to prevent starvation in times of scarcity. Grains are stored in traditional and modern storage structures which are rhumbu, barns and silos (Plates 6.8 and 6.9).

Plate 6.8: Traditional Storage Structures for Grain Reserve

Plate 6.9: Modern Silos for Grain Reserves

Strategic grain reserves also known as "*emergency food reserves or food security reserves"* is a Federal Government programe that encourages the reserves of grain during glut period to be used during period of scarcity. Modern storage structures (Silos) of varying storage capacities have been constructed across the country. The storage capacity, status of completion, and location are presented in Table 6.20 as provided by Food and Strategic Reserves Department. The grain reserve is available in

almost all states of the federation at different storage capacities, ranging from 10,000 metric tons to 100,000 metric tons.

In the North East zone, only Gombe state silo is operational at a capacity of 250,000 metric tons. The silos in Jigawa and Kaduna state at the North West zone have operational capacities of 25,000 metric tons each. The North Central silos are located in Benue, Kwara, Niger and Plateau state with 25,000 metric tons operational capacities. In the South West zone, Ondo and Oyo states have silos that are operational with 25,000 metric tons each, while each of Anambra and Ebonyi states in the South East have operational silos with 25,000 metric tons capacity. Cross River and Edo state in the South South zone also have two operational silos with 25000 metric tons each.

Other states that has silos of 100,000 capacities are Kebbi, Abuja which has been completed, Zamfara, Imo and Bayelsa are 90%, 73% and 55% completed respectively.Some states have their grain reserves strategies with capacities sufficient to cater for their states. Few among these states are Kebbi, Adamawa, Bauchi, Gombe, Katsina, Osun and Rivers states.

Table 6.20: Silo Complexes and their Capacity as at August, 2018 across the Zones

South West Zone			
			Status
Ekiti	Ado Ekiti	100,000	90% Completed
Ogun	Ikenne	25,000	95% Completed
Ondo	Akure	25,000	Operational
Osun	Ilesa	25,000	90% Completed
Oyo	Ibadan	25,000	Operational
South East Zone			
Anambra	Igbariam	25,000	Operational
Ebonyi	Ezillo	25,000	Operational
Imo	Okigwe	100,000	73% Completed
South South Zone			
AkwaIbom	Uyo	25,000	90% Completed
Bayelsa	Yenagoa	100,000	55% Completed
Cross Rivers	Ogoja	25,000	Operational
Edo	Irrua	25,000	Operational

Table 6.20 (contd): Silo Complexes and their Capacity as at August, 2018 across the Zones

North East Zone			
State	**Location**	**Capacity (MT)**	**Status**
Adamawa	Yola	25,000	95% Completed
Bauchi	Bauchi	25,000	90% Completed
Gombe	Gombe	25,000	Operational
Yobe	Damaturu	25,000	73% Completed
North West Zone			
Jigawa	Jahun	25,000	Operational
Kaduna	Kaduna	25,000	Operational
Kano	Gaya	25,000	95% Completed
Katsina	Dutsinma	25,000	100% Completed
Kebbi	BirninKebbi	100,000	100% Completed
Sokoto	Sokoto	25,000	100% Completed
Zamfara	Gusau	100,000	90% Completed
North Central Zone			
Abuja	FCT	100,000	100% Completed
Benue	Makurdi	25,000	Operational
Kogi	Lokoja	25,000	75% Completed
Kwara	Ilorin	25,000	Operational
Kwara	Lafiagi	10,000	Operational
Nassarawa	Lafia	25,000	80% Completed
Niger	Minna	25,000	Operational
Plateau	Jos	25,000	Operational
Taraba	Jalingo	25,000	95% Completed

7.0 COST OF PRODUCTION OF MAJOR CROPS PER HECTARE

The crops considered were classified as cereals and legumes, roots and tubers, fruits and vegetables. The crops captured include maize, cowpea, ground nut, rice, sorghum, millet, cassava, yam, tomatoes, okro, and pepper. The cost of producing these afore-mentioned crops was considered per hectare.

7.1 Cereals and Legumes

Cereals and legumes are staple crops commonly grown in Nigeria. They have the tendencies to be cultivated under rain fed and irrigated farming. Crops considered in this survey are maize, rice, millet, sorghum, cowpea, ground nut and melon.

The cost of producing of producing maize, cowpea and groundnut in the North east zone generally increased when compared with 2017 Table 7.1). Maize being a staple crop generally recorded an increase, Adamawa, Bauchi, Borno and Yobe reported a cost of producing maize in 2018 to be 150000, 180000, 215000 and 78000 respectively as against the cost reported in 2017 that was 140000, 180000, 206000 and 75000 respectively. Only Gombe reported a drop in the cost of producing maize with a percentage change 8.52% and Borno also reported a drop in the cost of producing groundnut with a percentage change of 54.8%.

The cost of producing maize, cowpea and groundnut in the Northwest Zone was reported to increase generally across the states of the zone. The percentage increase was highly significant between 2.59% and 25% (Table 7.2).

In the North Central Zone, all the states also reported an increase in the cost of producing major cereals and legumes. Though, Kwara and Taraba state reported a decrease in the cost of producing maize in 2018 when compared to 2017. The percentage decrease for these states were 1.3% and 40% respectively (Table 7.3).

Table 7.1: Cost of Producing Cereals and Legumes in the North East Zone

Northeast Agro-Ecological Zone (Cereals/Legumes)												
	Maize			Melon			Cowpea			G/Nut		
State	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Adamawa	140000	150000	7.14	N/A	N/A	N/A	110000	120000	9.1	105000	115000	9.5
Bauchi	180000	180000	0	N/A	N/A	N/A	76000	103000	35.5	90000	105000	16.67
Borno	206000	215000	4.37	N/A	N/A	N/A	27000	35000	29.63	167000	75500	-54.80
Gombe	164400	150400	-8.52	N/A	N/A	N/A	27000	35000	29.63	-	75500	
Yobe	75000	78000	4	N/A	N/A	N/A	73000	74500	2.05	79500	80000	0.63
Average	**153080**	**154680**	**1.398**	**N/A**	**N/A**	**N/A**	**62600**	**73500**	**21.182**	**110375**	**90200**	**-7**

Table 7.1 (continued): Cost of Producing Cereals and Legumes in the North East Zone

	Rice			Sorghum			Wheat			Soybeans			Millet		
State	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Adamawa	145000	155000	6.9	130000	135000	3.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bauchi	200000	200000	0	96000	144600	50.63							90000	109000	21.11
Borno	234000	210000	-10.26	164000	154000	-6.09	183000	-	-	N/A	N/A	N/A	102000	103000	0.98
Gombe	115000	122000	6.10	38000	40000	5.26	N/A	N/A	N/A	25000	40000	60	45000	55300	30.12
Yobe	94000	95000	1.06	84000	84000	0	109500	109500	0	N/A	N/A	N/A	69500	70000	0.71
Average	**157600**	**156400**	**0.76**	**102400**	**111520**	**10.74**	**146250**	**109500**	**0**	**25000**	**40000**	**60**	**76625**	**84325**	**13.23**

Table 7.2: Cost of Producing Cereals and Legumes in the North West Zone

North West Agro-Ecological Zone (Cereals/Legumes)												
	Maize			Melon			Cowpea			G/Nut		
State	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Jigawa	120000	150000	25	N/A	N/A	N/A				157000	157000	0
Kaduna	179000	205000	14.53	N/A	N/A	N/A	96000	107000	11.46	N/A	N/A	N/A
Kano	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Katsina	180000	210000	16.67	N/A	N/A	N/A	110000	11000	0	120000	135000	12.5
Kebbi	115000	115000	0	N/A	N/A	N/A	108000	108000	0	120000	120000	0
Sokoto	193000	198000	2.59	N/A	N/A	N/A	146000	152000	4.11	143000	153000	6.99
Zamfara	185000	-	-	N/A	N/A	N/A	98000	-	-	157000	-	-
Average	**162000**	**175600**	**11.758**	**N/A**	**N/A**	**N/A**	**111600**	**94500**	**3.8925**	**139400**	**141250**	**4.8725**

Table 7.2(continued): Cost of Producing Cereals and Legumes in the North West Zone

	Rice			Sorghum			Wheat			Soybeans			Millet		
State	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Kaduna	185000	216000	16.76	152000	170000	11.84	N/A	N/A	N/A	165000	179000	8.48	N/A	N/A	N/A
Katsina	210000	225000	7.14	125000	150000	20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Kebbi	210500	215000	2.38	115000	115000	0	N/A	N/A	N/A	N/A	N/A	N/A	115000	115000	0
Sokoto	214000	218000	1.87	182000	193000	6.04	N/A	N/A	N/A	N/A	N/A	N/A	177000	185000	4.52
Average	**204875**	**218500**	**7.0375**	**143500**	**157000**	**9.47**	**N/A**	**N/A**	**N/A**	**165000**	**179000**	**8.48**	**146000**	**150000**	**2.26**

Table 7.3: Cost of Producing Cereals and Legumes in the North Central Zone

North-Central Agro-Ecological Zone (Cereals/Legumes)												
	Maize			Melon			Cowpea			G/Nut		
State	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Benue	-	237200	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FCT	105500	119500	13.3	N/A	N/A	N/A	97500	104000	6.7	93600	102000	9.0
Kogi	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Kwara	152000	150000	-1.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nassarawa	130000	135000	3.9	75000	100000	33.3	100000	100000	0	100000	110000	10
Niger	150000	160000	6.67	N/A	N/A	N/A	160000	175000	9.38	170000	175000	2.94
Plateau	210000	216300	3	N/A	N/A	N/A	131000	134930	3	N/A	N/A	N/A
Taraba	200000	180000	-10	N/A	N/A	N/A	155000	140000	-9.70	120000	120000	0
Average	**157916.7**	**171142.9**	**2.595**	**75000**	**100000**	**33.3**	**128700**	**130786**	**1.876**	**120900**	**126750**	**5.485**

Table 7.3(continued): Cost of Producing Cereals and Legumes in North Central Zone

	Rice			Sorghum			Wheat			Soybeans			Millet		
State	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Benue	N/A	220913	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	171050	-	N/A	N/A	N/A
FCT	115000	125000	8.7	78000	78000	0	N/A	N/A	N/A	N/A	N/A	N/A	76000	76000	0
Kogi	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Kwara	170000	165000	-2.9	N/A	N/A	N/A	N/A	N/A	N/A	172000	172000	0	N/A	N/A	N/A
Nassarawa	220000	240000	0	110000	125000	13.64	N/A	N/A	N/A	95000	100000	5.3	N/A	N/A	N/A
Niger	180000	200000	11.11	155000	165000	6.45	N/A	N/A	N/A	180000	190000	5.55	120000	130000	8.33
Plateau	235000	242050	3	125000	128750	3	N/A	N/A	N/A	101000	104030	3	90000	92700	3
Taraba	230000	165000	-28.26	140000	135000	-3.57	N/A	N/A	N/A	205000	150000	-26.83	90000	110000	22.22
Average	**191666.7**	**193994.7**	**-1.39167**	**121600**	**126350**	**3.904**	**N/A**	**N/A**	**N/A**	**150600**	**147846.7**	**-2.596**	**94000**	**102175**	**8.3875**

The cost of production in the Southwest zone increased for maize, melon, cowpea and groundnut. In Ekiti, Lagos and Ogun states there was a general increase in the cost of producing cowpea, and maize respectively. Ondo state has a uniform cost of producing maize and cowpea in 2017 and 2018 to be 150,000 and 170,000 respectively (Table 7.4).

Maize and groundnut were the crop with data in the South east zone. The cost of producing maize in Abia, Ebonyi, Enugu and Imo increased, while the cost of producing groundnut in Ebonyi reduced in 2018. The cost was 100,000 in 2018 and 120,000 in 2017 amounting to a percentage change of 16.67% (Table 7.5).

Akwa Ibom, Cross River, Delta and Edo states in the south south zone, the cost of production for maize, melon, cowpea and groundnut generally increased in 2018 (Table 7.6).

Rice, sorghum, wheat, soybeans and millet are another important cereals and legumes crop planted. Adamawa, Bauchi, Gombe and Yobe. Though, a single digit percentage increase (6.9%) was reported for rice in Adamawa, Gombe and Yobe while Borno reported a percentage decrease of 10.3%. A decrease was also reported in Borno for sorghum. Cost of production in 2017 was 164,000 and in 2018 it was reported to be 154,000. The decrease could be associated to the resettlement of the people after curbing the Boko Haram activities in the region. Inadequate and irregular circulation of farm inputs could be another associated reason (Table 7.7).

In the North-west zone, Kaduna, Katsina, Kebbi, and Sokoto states reported crop production estimates per hectare for rice, sorghum and millet. Katsina state reported the highest cost of producing rice in 2018 which is 225,000, followed by Sokoto, Kaduna and Kebbi that produces for 218000, 216000 and 215,000 respectively. No decrease in cost of producing these crops was reported in the zone, rather, Kebbi state reported a steady cost of producing sorghum and millet in 2017 and 2018 (Table 7.8).

Table 7.4: Cost of Producing Cereals and Legumes in the South West Zone

South West Agro-Ecological Zone (Cereals/Legumes)												
	Maize			Melon			Cowpea			G/Nut		
State	**2017**	**2018**	**% Change**	**2017**	**2018**	**% Change**	**2017**	**2018**	**% Change**	**2017**	**2018**	**% Change**
Ekiti	220000	260000	0	N/A	N/A	N/A	186000	210000	12.90	N/A	N/A	N/A
Lagos	187000	200000	6.95	450000	500000	11.11	N/A	N/A	N/A	N/A	N/A	N/A
Ogun	122700	182000	48.33	N/A	N/A	N/A	243750	283350	16.25	N/A	N/A	N/A
Ondo	150000	150000	0	N/A	N/A	N/A	170000	170000	0	N/A	N/A	N/A
Oyo	124000	157500		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Average	**160740**	**189900**	**13.82**	**450000**	**500000**	**11.11**	**199916.7**	**221116.7**	**9.716667**	**N/A**	**N/A**	**N/A**

Table 7.4(continued): Cost of Producing Cereals and Legumes in South West Zone

	Rice			Sorghum			Wheat			Soybeans			Millet		
State	**2017**	**2018**	**% Change**	**2017**	**2018**	**% Change**	**2017**	**2018**	**% Change**	**2017**	**2018**	**% Change**	**2017**	**2018**	**% Change**
Ekiti	174000	200000	14.94	N/A	N/A	N/A	N/A	N/A	N/A	195000	200000	2.56	N/A	N/A	N/A
Lagos	210000	250000	19.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ogun	275110	339820	23.52	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ondo	280000	300000	7.14	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Osun	220000	225000	2.27	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Oyo	130000	131500	1.15	N/A	N/A	N/A	N/A	N/A	N/A	119000	129000	8.40	N/A	N/A	N/A
Average	**130000**	**131500**	**1.15**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**119000**	**129000**	**8.4**	**N/A**	**N/A**	**N/A**

Table 7.5: Cost of Producing Cereals and Legumes in the South East Zone

South East Agro-Ecological Zone (Cereals/Legumes)												
	Maize			Melon			Cowpea			G/Nut		
State	**2017**	**2018**	**% Change**	**2017**	**2018**	**% Change**	**2017**	**2018**	**% Change**	**2017**	**2018**	**% Change**
Abia	150000	210000	40	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ebonyi	110000	100000		N/A	N/A	N/A	N/A	N/A	N/A	120000	100000	-16.67
Enugu	312000	325600	4.36	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Imo	300000	360000	20	N/A	N/A	N/A	N/A	N/A	N/A	40000	45000	12.5
Average	**218000**	**248900**	**21.45**							**80000**	**72500**	**-2.085**

Table 7.5(continued): Cost of Producing Cereals and Legumes in South East Zone

	Rice			Sorghum			Wheat			Soybeans			Millet		
State	**2017**	**2018**	**% Change**	**2017**	**2018**	**% Change**	**2017**	**2018**	**% Change**	**2017**	**2018**	**% Change**	**2017**	**2018**	**% Change**
Abia	280000	380000	35.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Anambra	N/A	220913	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	171050	-	N/A	N/A	N/A
Ebonyi	400000	450000	12.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Imo	220000	300000	36.36	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Average	**220000**	**300000**	**36.36**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**

Table 7.6: Cost of Producing Cereals and Legumes in the South South Zone

South-South Agro-Ecological Zone (Cereals/Legumes)												
	Maize			Melon			Cowpea			G/Nut		
State	**2017**	**2018**	**% Change**	**2017**	**2018**	**% Change**	**2017**	**2018**	**% Change**	**2017**	**2018**	**% Change**
Akwa-Ibom	178700	185700	3.93	19000	19500	2.63	N/A	N/A	N/A	N/A	N/A	N/A
Cross River	85536	102643.2	20	45017	60140	33.6	N/A	N/A	N/A	64260	66750	3.9
Delta	73000	74100	1.5	8700	9500	9.2	99500	100500	1.0	N/A	N/A	N/A
Edo	220000	260000	18	N/A	N/A	N/A	180000	220000	22	N/A	N/A	N/A
Average	**139309**	**155610.8**	**10.8575**	**24239**	**29713.33**	**15.14333**	**139750**	**160250**	**11.5**	**64260**	**66750**	**3.9**

Table 7.6(continued): Cost of Producing Cereals and Legumes in South South Zone

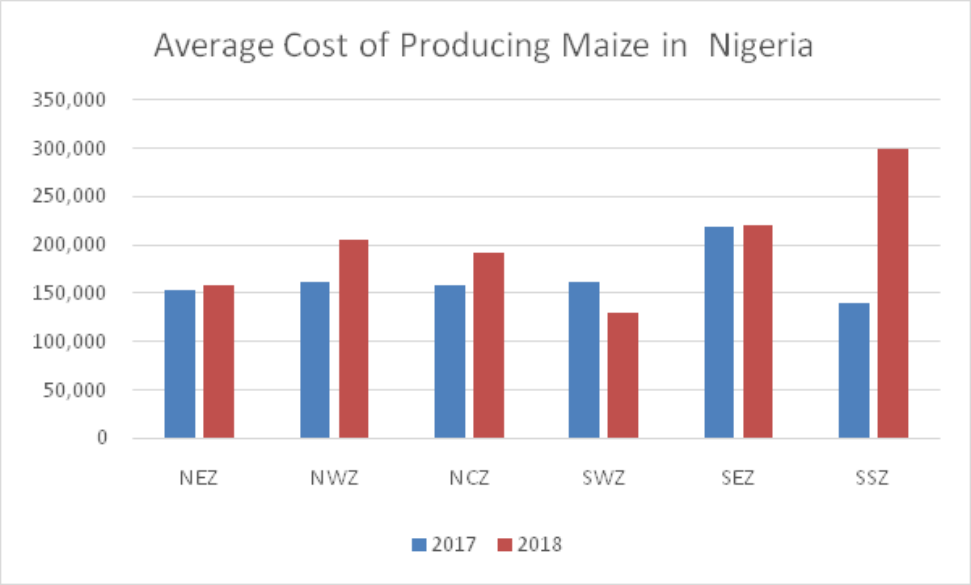
													Millet		
State	**2017**	**2018**	**% Change**	**2017**	**2018**	**% Change**	**2017**	**2018**	**% Change**	**2017**	**2018**	**% Change**	**2017**	**2018**	**% Change**
Bayelsa	722000	809500	12.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cross River	125712	175996.8	40	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Edo	300000	355000	18	N/A	N/A	N/A	N/A	N/A	N/A	180000	220000	22	N/A	N/A	N/A
Average	**382570.7**	**446832.3**	**23.36667**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**180000**	**220000**	**22**	**N/A**	**N/A**	**N/A**

The cost of production in the north central as presented by FCT, Kwara, Nassarawa, Niger, Plateau and Taraba. FCT, Niger and Plateau reported an increase in rice production by 8.7%, 11.11% and 3% respectively. Conversely, Kwara and Taraba state reported a drop in the cost of rice production by a percentage change of 2.9% and 28.26% respectively. The cost of producing sorghum and soybeans in Taraba also dropped by a percentage change of 3.57% and 26.83% respectively. This drop could be associated to the menace of kidnapping within some farm areas in the state (Table 7.3).

Cost of producing rice in the south west zone was majorly reported. Results indicated a general increase in the cost of producing rice with highest cost of N339,820 reported by Ogun state in 2018 and the lowest cost of N200,000 was reported by Ekiti in 2018. Cost of producing soybean was reported by Ekiti and Oyo state with an increase. The cost of production in 2017 for these two states was N19,500 and N11,900 while in 2018, it was N200,000 and N129,000 respectively (Table 7.4).

The cost of producing rice was the only crop reported in the south east zone. Abia, Ebonyi and Imo state reported a cost of production for 2018 as N380,000, N450,000 and N300,000 respectively a percentage increase of 35.7%, 12.5% and 36.6% respectively. Sorghum, wheat, soybeans and millet are not mostly produced in the zone (Table 7.5).

Bayelsa, Cross River and Edo state reported the cost of production for rice. Interestingly, there was an increase in the cost of production within these three states. A percentage increase in the cost of producing rice were 12.1%, 40% and 18% in Bayelsa, Cross River and Edo state respectively (Table 7.6).



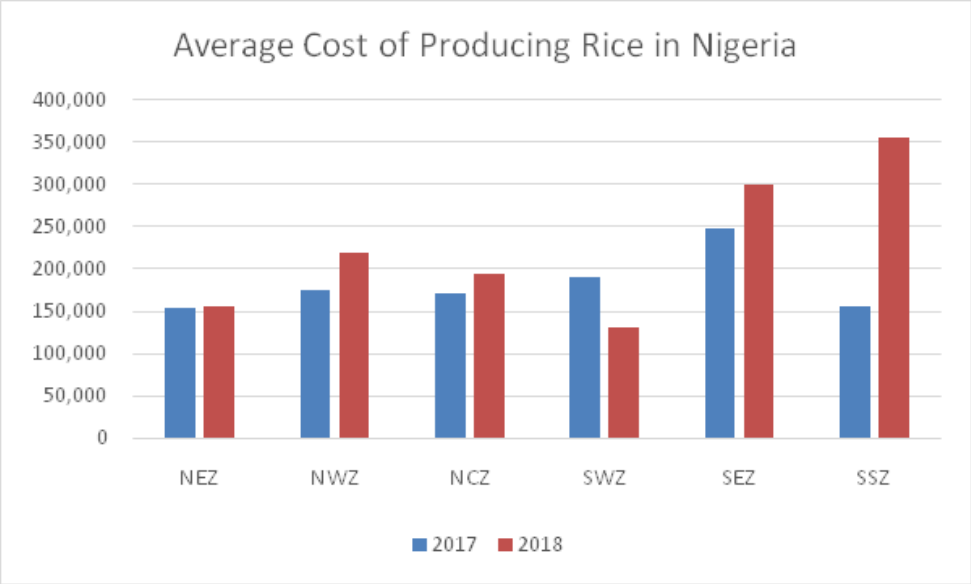


Figure 7.1: Average Cost of Producing Maize and Rice in Nigeria

The cost of producing maize and rice in 2018 reportedly increased slightly when compared to 2017 (Figure 7.1). The least producing zone in 2018 was south west zone with an average cost of production of N130,000 and N131,500 for maize and rice respectively. There happen to be a slight decrease in the average cost of production in 2017 which wasN160,740 and N189,900. The highest cost of producing maize and rice in 2018 was recorded in the south south zone followed by south west zone and northwest zone. The average cost of production for rice and maize was reported to be N355,000 and N300,000 in the south south, N300,000 and N220,000 in the south east zone and N218,500 and N204,875 in the northwest zone respectively.

Roots and Tubber Crops

Roots and tuber crops include cassava, yam, sweet/irish potatoes, carrots, onions and others. Roots and tuber crops are mostly grown under rain fed condition. Crops considered in this APS are cassava and yam.

The cost of producing roots and tuber crops was considered across all zones in the country. The roots and tuber crops considered were cassava and yam. However, zones that reported these crops were north central, south west, south east and south south. In the north central, Benue, FCT, Kwara, Niger, Plateau and Taraba states provided information on the cost of root crop production. Generally, it was reported in the zone that there were increase in the cost of production. Taraba state has the highest cost of producing cassava in 2018, reported to be N240,000, closely followed by Benue N200,000. More so, the cost of producing yam in the zone generally experienced an increase. Plateau state reported the highest cost of production of N606,000 in 2018 as against N589,000 in 2017, Niger state followed with N850,000 in 2018 and N800,000 in 2017 (Table 7.7).

Table 7.7: Cost of Producing Roots/Tuber Crops in the North Central/Ha

	Cassava			Yam		
State	**2017**	**2018**	**% Change**	**2017**	**2018**	**% Change**
Benue	190000	200000	5.26	205000	210000	2.44
FCT	90700	106000	16.9	266500	272000	2.1
Kogi	N/A	N/A	N/A	N/A	N/A	N/A
Kwara	120000	120000	0	N/A	N/A	N/A
Nassarawa	150000	180000	20	75000	100000	33.33
Niger	130000	140000	7.69	800000	850000	6.25
Plateau	97800	100734	3	589000	606670	3
Taraba	157000	240000	52.87	310000	240000	-22.58
Average	**133642.9**	**155247.7**	**15.10286**	**374250**	**379778.3**	**4.09**

In the south west zone, Ekiti, Lagos, Ogun, Ondo, Osun and Oyo states reported cost of production for cassava and yam. Quite a number of states reported an increase in the cost of producing cassava and yam. Ogun state reported the highest cost of producing cassava in the zone in 2018 which was N330,000 and Ondo reported the highest cost of producing yam with a value of N500,000 (Table 7.8).

Table 7.8: Cost of Producing Roots/Tuber Crops in the South West Zone/Ha

South West Agro-Ecological Zone (Roots/ Tuber Crops)						
	Cassava			Yam		
State	**2017**	**2018**	**% Change**	**2017**	**2018**	**% Change**
Ekiti	230000	290000	26.09	750000	870000	16
Lagos	240000	250000	4.2	-	157000	-
Ogun	277800	330000	18.79	410500	430140	4.78
Ondo	250000	250000	0	500000	500000	0
Osun	150000	160000	6.67	350000	350000	0
Oyo	126500	136500	7.91	129000	144000	11.63
Average	**212383.3**	**236083.3**	**10.61**	**427900**	**408523.3**	**6.482**

In the south east zone, Abia, Ebonyi, Enugu and Imo reported cost of production for cassava and yam. The costs reported were found to be generally on the increase across these states. Ebonyi reported the highest cost of producing Yam in 2017 and 2018 amounting to a cost of N600,000 while Enugu reported the cost of producing cassava in 2017 and 2018 to be N347,000 and N359,100 respectively (Table 7.9).

Table 7.9: Cost of Producing Roots/Tuber Crops in the South East Zone/Ha

South East Agro-Ecological Zone (Roots/ Tuber Crops)						
	Cassava			Yam		
State	**2017**	**2018**	**% Change**	**2017**	**2018**	**% Change**
Abia	300000	350000	16.67	390000	410000	5.12
Anambra	190000	200000	5.3	205000	210000	2.4
Ebonyi	180000	170000	5.56	600000	600000	0
Enugu	347000	359100	3.48	N/A	N/A	N/A
Imo	300000	350000	16.67	500000	510000	2
Average	**263400**	**285820**	**9.536**	**423750**	**432500**	**2.38**

The cost of producing cassava and yam in the south south zone was reported by Akwa Ibom, Bayelsa, Cross River, Delta and Edo. There was a significant increase in the cost of producing these crops in the zone. Edo state reported the highest cost of producing both cassava and yam in the zone at a cost of N290,000 and N460,000 respectively in 2018. This is followed by Cross River that has a percentage increase of 6% and 5% for cassava and yam respectively.

Figure 7.1.1b shows the average cost of producing tuber crops (cassava and Yam) in Nigeria. Though, the average cost of producing yam is much higher than cassava in all the zones studied. The north east and north west zone are not major producer of any of these crops. However, the cost of producing yam was observed to have a significant increase in south east zone N432,500, south west zone N408,523 and north central zone N379,778 in 2018 when compared to cassava that has N285,820, N236,083 and N155,247 respectively (Table 7.10). This significant increase in the average cost of producing yam could be associated to the Government initiatives, on yam exportation.

Table 7.10: Cost of Producing Roots/Tuber Crops in the South South Zone/Ha

South-South Agro-Ecological Zone (Roots/ Tuber Crops)						
	Cassava			Yam		
State	**2017**	**2018**	**% Change**	**2017**	**2018**	**% Change**
Akwa-Ibom	157000	170000	8.28	310000	240000	-22.6
Bayelsa	98000	129030	31.7	480700	526200	9.5
Cross River	200670	212710.2	6.0	257580	270459	5.0
Delta	96800	96850	0.05	100150	100250	0.1
Edo	250000	290000	16	400000	460000	15
Average	**160494**	**179718**	**12.406**	**309686**	**319381.8**	**1.4**

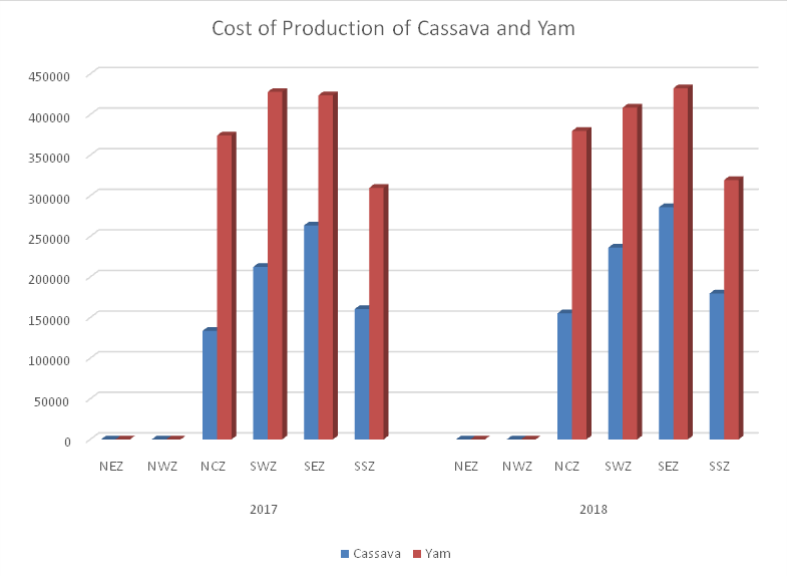


Figure 7.1: Average Cost of Production of Cassava and Yam in Nigeria

Fruits and Vegetables

Fruits and vegetables are succulent crops that are produced mostly under irrigation. The crops considered under fruits and vegetables are tomatoes, okro and pepper.

Fruits and vegetables was reported for only south west zone. States that reported the cost of producing tomato and okro were Ekiti, Lagos, Ogun, Ondo and Osun states. There was a general increase in the cost of producing tomatoes and okro with Ogun state reporting the highest cost of producing tomato at N360,000 in 2018 and N339,500 in 2017 respectively. This is closely followed by Ekiti state with a cost of N250,000 in 2018 and N200,000 in 2017 (Table 7.11).

Table 7.11: Cost of Producing Fruits and Vegetables in the So uth West Zone

South West Agro-Ecological Zone (Fruits and Vegetables)									
	Tomato			Okra			Pepper		
State	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Ekiti	200,000	250,000	25	180,000	190,000	5.56	N/A	N/A	N/A
Lagos	125,000	130,000	4.0	N/A	N/A	N/A	N/A	N/A	N/A
Ogun	339,500	360,000	6.04	134,001	166,200	24.03	N/A	N/A	N/A
Osun	100,000	120,000	20	120,000	120,000	0	N/A	N/A	N/A
Average	**191,125**	**215,000**	**13.76**	**144,667**	**158,733.3**	**9.86**	**N/A**	**N/A**	**N/A**

8.0 FOOD COMMODITY PRICES

This section reports prices of major food commodities across the country. Comparison of prices were made between January and July 2017 and the corresponding periods in 2018. As in last year, general increases in prices of most commodities were recorded across the country. Again as in the previous year, this increase in prices could be attributed to the general rise in prices in the economy. Government macroeconomic policies as well as its compliance with the ECOWAS Charter could be other reasons for the general increases in price levels. The tables for commodity prices were presented according to the 6 geopolitical zones of the country for ease of comparison.

Prices of Maize, Millet and Sorghum

Comparison of market prices of maize, millet and sorghum were made for Jan-July 2017 and Jan-July 2018 and presented in Table 9.1. Generally, the prices of maize, millet and sorghum increased across all zones except the South-East and South-South zones. There was a general decrease in maize prices when July 2017 and July 2018 prices were compared across the states. Taraba and Nassarawa recorded the highest decrease in maize prices (>50%). However, among the few states that reported increase in the price of maize over the period, Anambra state reported more than 87% increase. The highest mean decrease in maize price (33%) was recorded in the North-East Zone, while the highest mean increase

(9%) was recorded in the South-East.

Both the highest decrease and increase in millet prices were reported from the North-East Zone. Bauchi recorded the highest decrease (58%) in millet price; while Adamawa reported the highest increase of 38%. The highest mean decrease in millet price (28%) was recorded in the North-East Zone, while the highest mean increase of 11% was recorded in the South-West.

The highest decrease and increase in sorghum prices were reported in the North-West Zone. Katsina recorded the highest decrease of 64% in sorghum prices; while Kaduna reported the highest increase of 45%. The highest mean decrease in sorghum price of 36% was recorded in the North-West Zone, while the highest mean increase of 18% was recorded in the South-East Zone.

Prices of Paddy and Milled Rice

The government's tariff on imported rice as well as its policy against the importation of rice across land borders stimulated local production and processing of rice. General increase in paddy prices was recorded across the country. Both the highest decrease and increase in paddy prices were reported from the North-East Zone. Taraba recorded the highest decrease of 39% in paddy prices, while Gombe reported the highest increase of 63%. The highest mean decrease in paddy price of 8% was recorded in the North-Central Zone, while the highest mean increase of 20% was recorded in the North-East Zone.

Ebonyi recorded the highest decrease of 74% in milled rice prices, which could be attributed to the concentration of small and medium scale rice processing firms in the state. The highest increase of 85% was recorded in Zamfara state. The highest zonal mean decrease in milled rice price of 37% was recorded in the South-East Zone, while the highest mean increase of about 5% was recorded in the South-West Zone.

Prices of Yam tuber, cassava tuber and cassava garri

Increases in the prices of Yam tuber, cassava tuber and cassava garri was reported across most states. Zamfara recorded the highest decrease of 74% in prices of yam tuber. The highest increase of 230% was recorded in Lagos state. The highest zonal mean decrease in yam tuber price of 11% was recorded in the South-East Zone, while the highest mean increase of about 86% was recorded in the North-West Zone.

Both the highest decrease and increase in cassava tuber prices were reported from the South-West Zone. Osun recorded the highest decrease of 84%, while Lagos reported the highest increase of 217%. The highest mean decrease in cassava tuber price of 49% was recorded in the South-East Zone, while the highest mean increase of 50% was recorded in the North-West Zone.
Delta recorded the highest decrease of 74% in the prices of cassava garri. The highest increase of 86%

was recorded in Enugu. The highest zonal mean decrease in cassava gari price of 65% was recorded in the South-East Zone, while the highest mean increase of 25% was recorded in the North-East Zone.

Prices of soybeans and Fresh Tomato

Sokoto recorded the highest decrease of 36% in the prices of soyabean. The highest increase of 88% was recorded in Bauchi. Both highest mean decrease by14% and increase by 10% in soyabean price were recorded in the North-West Zone. Nassarawa recorded the highest decrease of 37% in the prices of fresh tomato between July 2017 and July 2018. The highest increase of 300% was recorded in Jigawa between January 2017 and January 2018. The highest zonal mean decrease in fresh tomato price of about 4% was recorded in the South-South Zone, while the highest mean increase of about 57% was recorded in the North-West Zone.

Prices of beef, mutton and goat meat

Slight increases in the prices of beef, mutton and goat meat were also reported across the states. The highest increase of 44% was recorded for beef price in Jigawa. Adamawa recorded the highest decrease of 42% in beef prices. The highest zonal mean decrease in beef price of 8% was recorded in the North-West Zone, while the highest mean increase of 8% was recorded in the North-Central Zone.

The highest increase of 40% was recorded for mutton price in Nassarawa. Zamfara recorded the highest decrease of 33%. The highest zonal mean decrease in mutton price of 6% was recorded in the North-West Zone, while the highest mean increase of 25% was recorded in the South-East Zone.

Jigawa recorded the highest decrease of 40% in the prices of goat meat. The highest increase of 44% was recorded in Nassarawa in July 2017 and July 2018. The highest zonal mean decrease in goat meat price of 8% was recorded in the South-West Zone, while the highest mean increase of 13% was recorded in the North-West Zone.

Prices of fresh and dried fish

Slight increases were reported in the prices of fresh and dried fish across most states of the country. Sokoto recorded the highest increase of 89% in the price of fresh fish. The highest decrease of 33% was recorded in Ondo. The highest zonal mean decrease in fresh fish price of 7% was recorded in the South-West Zone, while the highest mean increase of 24% was recorded in the North-East Zone. The highest increase of 76% was recorded for dried fish price in Ebonyi. The FCT recorded the highest decrease of 20%. The highest zonal mean decrease in dried fish price of 6% was recorded in the North-West Zone, while the highest mean increase of 30% was recorded in the South-East Zone.

Table 8.1: Commodity Prices(N) across the Six Ecological Zones of Nigeria in 2019

Sorghum, millet and maize commodity prices(N) in the North East Zone

States	Commodity Prices (N) in Northeast Zone/(Kg)																	
	Sorghum						Millet						Maize					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Borno	150	135	-10.00	175	120	-31.43	130	110	-15.38	180	130	-27.78	150	135	-10.00	175	120	-31.43
Yobe	145	154	6.21	184	137	-25.54	140	135	-3.57	197	148	-24.87	145	154	6.21	184	137	-25.54
Bauchi	165.00	110.45	-33.06	114.80	126.50	10.19	165.80	110.35	-33.44	321.50	134.90	-58.04	116.25	93.00	-20.00	163.85	125.00	-23.71
Gombe	153.84	195.10	26.82	176.00	205.00	16.48	153.85	110.50	-28.18	126.92	148.70	17.16	160.00	104.70	-34.56	176.00	114.53	-34.93
Adamawa	132.00	140.00	6.06	145.00	140.00	-3.45	142.00	158.00	11.27	148.00	144.00	-2.70	190.00	200.00	5.26	200.00	180.00	-10.00
Taraba	80.00	100.00	25.00	200.00	120.00	-40.00	142.00	120.00	-15.49	151.00	130.00	-13.91	142.00	80.00	-43.66	190.00	90.00	-52.63
Z. Mean	137.64	139.0917	3.505	317.80	273.58	-13.91	128.94	107.31	-16.78	170.74	122.60	-28.19	133.88	111.12	-17.00	164.81	111.09	-32.60

Sorghum, millet and maize commodity prices(N) in North West Zone

States	Commodity Prices (N) in Northwest Zone/(Kg)																	
	Sorghum						Millet						Maize					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Jigawa	144.00	90.00	-37.50	160.00	120.00	-25.00	148.00	100.00	-32.43	162.00	132.00	-18.52	152.00	90.00	-40.79	180.00	112.00	-37.78
Zamfara	157.00	160.00	1.91	180.00	112.00	-37.78	176.00	140.00	-20.45	200.00	140.00	-30.00	160.00	100.00	-37.50	180.00	112.00	-37.78
Kaduna	120.00	175.00	45.83	200.00	130.00	-35.00	150.00	150.00	0.00	200.00	150.00	-25.00	100.00	150.00	50.00	250.00	190.00	-24.00
Katsina	133.33	120.00	-10.00	108.30	112.00	-3.42	130.00	120.00	-7.69	151.50	112.00	-26.07	130.00	120.00	-7.69	133.30	108.00	-18.98
Kebbi	300.00	250.00	-16.67	300.00	230.00	-23.33	230.00	220.00	-4.35	300.00	180.00	-40.00	220.00	200.00	-9.09	240.00	180.00	-25.00
Sokoto	162.26	132.54	-18.32	166.46	138.86	-16.58	149.38	123.08	-17.61	161.49	136.44	-15.51	159.43	121.95	-23.51	153.60	125.13	-18.54
Kano	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na
Z. Mean	169.4317	154.59	-5.79	219.13	140.48	-35.89	163.90	142.18	-13.25	195.83	141.74	-27.62	153.57	130.33	-15.14	189.48	137.86	-27.25

Sorghum, millet and maize commodity prices (N) in North Central Zone

States	Commodity Prices (N) in Northcentral Zone/(Kg)																	
	Sorghum						Millet						Maize					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Benue	251.70	287.00	14.02	302.00	308.10	2.02	291.60	312.13	7.04	331.00	401.10	21.18	131.11	176.13	34.34	201.23	280.00	39.14
Kogi	200.00	210.00	5.00	154.00	155.00	0.65	na	na	na	na	na	na	214.29	157.14	-26.67	218.75	164.29	-24.90
Nassarawa	186.00	236.40	27.10	291.80	145.01	-50.31	195.00	183.74	-5.77	285.45	154.06	-46.03	180.00	117.39	-34.78	277.08	134.80	-51.35
FCT	175.00	120.84	-30.95	237.50	158.34	-33.33	158.34	129.17	-18.42	237.50	158.34	-33.33	181.50	112.34	-38.10	225.84	133.33	-40.96
Plateau	182.23	167.47	-8.10	198.24	168.71	-14.90	511.70	398.50	-22.12	472.36	343.84	-27.21	na	na	na	na	na	na
Niger	136.18	98.66	-27.55	174.33	101.61	-41.71	151.94	134.72	-11.33	176.46	114.54	-35.09	141.17	92.87	-34.21	155.14	92.62	-40.30
Kwara	218.00	163.00	-25.23	181.00	123.00	-32.04	118.75	118.75	0.00	118.75	122.50	3.16	133.33	113.33	-15.00	165.49	106.00	-35.95
Z. Mean	420.76	412.67	-1.92	444.48	397.22	-10.63	492.05	470.72	-4.34	519.79	473.20	-8.96	428.34	398.17	-7.04	465.79	418.43	-10.17

Sorghum, millet and maize commodity prices (N) in South West Zone

States	Commodity Prices (N) in Southwest Zone/(Kg)																	
	Sorghum						Millet						Maize					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Osun	210.00	185.49	-11.67	214.52	180.21	-15.99	na	na	#VALUE!	na	na	na	205.00	125.81	-38.63	142.64	116.49	-18.33
Oyo	246.50	269.23	9.22	230.76	178.57	-22.62	269.23	230.76	-14.29	230.79	192.80	-16.46	166.00	133.33	-19.68	213.33	120.00	-43.75
Ekiti	na	na	na	na	na	na	na	na	na	na	na	na	250.00	300.00	20.00	255.00	350.00	37.25
Ondo	na	na	na	na	na	na	230.00	250.00	8.70	260.00	233.00	-10.38	200.00	190.25	-4.88	180.00	na	Na
Ogun	na	na	na	na	na	na	450.00	475.00	5.56	475.25	590.5	24.25	75.00	85.00	13.33	141.70	188.50	33.03
Lagos	na	na	na	na	na	na	na	na	na	na	na	na	125.00	125.00	0.00	125.00	135.11	8.09
Z. Mean	228.25	227.36	-0.39	222.64	179.39	-19.43	466.41	476.92	2.25	480.43	535.60	11.48	170.17	159.90	-6.03	176.28	182.02	3.26

Sorghum, millet and maize commodity prices (N) in South East Zone

States	Commodity Prices (N) in Southeast Zone/(Kg)																	
	Sorghum						Millet						Maize					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Enugu	na	na	na	na	na	na	251.00	167.00	-33.47	200.00	175.00	-12.50	301.00	125.00	-58.47	274.00	168.00	-38.69
Ebonyi	300.00	325.00	8.33	240.00	325.00	35.42	na	na	na	na	na	na	na	na	na	na	na	na
Abia	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na
Imo	250.00	257.50	3.00	255.00	260.00	1.96	na	na	na	na	na	na	200.00	230.00	15.00	210.00	232.50	10.71
Anambra	na	na	na	na	na	na	na	na	na	na	na	na	149.00	210.00	40.94	160.00	300.00	87.50
Z. Mean	550.00	582.50	5.91	495.00	585.00	18.18	251.00	167.00	-33.47	200.00	175.00	-12.50	283.33	265.00	-6.47	284.67	311.00	9.25

Sorghum, millet and maize commodity prices (N) inSouth South Zone

States	Commodity Prices (N) in Southsouth Zone/(Kg)																	
	Sorghum						Millet						Maize					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Akwa Ibom	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	Na
Bayelsa	na	na	na	na	na	na	400.00	358.00	-10.50	479.00	465.00	-2.92	385.00	361.00	-6.23	341.50	365.50	7.03
C/River	na	na	na	na	na	na	na	na	na	na	na	na	237.90	229.81	-3.40	237.90	194.41	-18.28
Delta	na	na	na	na	na	na	na	na	na	na	na	na	191.25	203.60	6.46	198.34	201.90	1.79
Edo	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	Na
Rivers	na	na	na	na	na	na	na	na	na	na	na	na	225.00	225.00	0.00	250.00	300.00	20.00
Z. Mean	na	na	na	na	na	na	400.00	358.00	-10.50	479.00	465.00	-2.92	259.79	254.85	-1.90	256.94	265.45	3.32

Sorghum, millet and maize commodity prices (N) in North East Zone

States	Commodity Prices (N) in Northeast Zone/(Kg)																	
	Milled Rice						Yam Tuber						Yam Flour					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Borno	350	370	5.71	350	400	14.29	220	300	36.36	225	398	76.89	na	na	na	na	na	Na
Yobe	372	398	6.99	382	413	8.12	230	313	36.09	235	356	51.49	na	na	na	na	na	Na
Bauchi	217.78	240.50	10.43	307.60	138.35	-55.02	130.22	250	91.98	213	300	40.85	na	na	na	na	na	Na
Gombe	224.28	264.20	17.80	350.00	338.50	-3.29	128.88	230.00	78.46	220.00	287.00	30.45	na	na	na	na	na	Na
Adamawa	280.00	300.00	7.14	300.00	400.00	33.33	120.00	170.00	41.67	140.00	160.00	14.29	na	na	na	na	na	Na
Taraba	250.00	195.00	-22.00	350.00	220.00	-37.14	150.00	160.00	6.67	200.00	100.00	-50.00	na	na	na	na	na	Na
Z. Mean	282.34	294.62	4.35	339.93	318.31	-6.36	163.18	237.17	45.34	205.50	266.83	29.85	na	na	na	na	na	Na

Sorghum, millet and maize commodity prices (N) in North West Zone

States	Commodity Prices (N) in Northwest Zone/(Kg)																	
	Milled Rice						Yam Tuber						Yam Flour					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Jigawa	248.00	220.00	-11.29	259.00	203.00	-21.62	200.00	380.00	90.00	200.00	400.00	100.00	na	na	na	na	na	Na
Zamfara	303.00	232.00	-23.43	135.00	250.00	85.19	350.00	100.00	-71.43	230.00	280.00	21.74	na	na	na	na	na	Na
Kaduna	370.00	450.00	21.62	380.00	400.00	5.26	250.00	800.00	220.00	250.00	250.00	0.00	na	na	na	na	na	Na
Katsina	253.30	300.00	18.44	308.20	280.00	-9.15	260.00	789.00	203.46	250.00	250.00	0.00	na	na	na	na	na	Na
Kebbi	350.00	300.00	-14.29	300.00	300.00	0.00	300.00	500.00	66.67	700.00	600.00	-14.29	na	na	na	na	na	Na
Sokoto	278.33	266.38	-4.29	257.80	239.55	-7.08	94.25	139.84	48.37	172.16	225.83	31.17	na	na	na	na	na	Na
Z. Mean	300.44	294.73	-1.90	273.33	278.76	1.98	242.38	451.47	86.27	300.36	334.31	11.30	na	na	na	na	na	Na

Processed Rice and Yam commodity prices (N) in South West Zone

States	Commodity Prices (N) in Southwest Zone/(Kg)																	
	Milled Rice						Yam Tuber						Yam Flour					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Osun	403.50	343.31	-14.92	305.49	343.75	12.52	176.50	231.54	31.18	188.04	121.50	-35.39	216.59	379.05	75.01	110.00	120.00	9.09
Oyo	341.77	270.58	-20.83	352.94	264.70	-25.00	79.18	72.46	-8.49	81.30	78.53	-3.41	500.00	650.00	30.00	450.00	800.00	77.78
Ekiti	350.00	370.00	5.71	340.00	380.00	11.76	550.00	550.00	0.00	520.00	570.00	9.62	450.00	480.00	6.67	450.00	490.00	8.89
Ondo	650.00	366.66	-43.59	483.00	506.00	4.76	100.00	727.95	627.95	90.00	100.00	11.11	350.00	313.90	-10.31	375.00	263.75	-29.67
Ogun	500.00	533.00	6.60	460.00	466.00	1.30	700.00	850.00	21.43	1159.00	1368.90	18.11	634.00	634.50	0.08	998.50	1046.00	4.76
Lagos	508.46	508.46	0.00	508.46	610.80	20.13	116.14	130.54	12.40	131.63	435.11	230.56	340.00	416.62	22.54	416.26	416.62	0.09
Z. Mean	458.96	398.67	-13.14	408.32	428.54	4.95	286.97	427.08	48.82	361.66	445.67	23.23	415.10	479.01	15.40	466.63	522.73	12.02

Processed Rice and Yam commodity prices (N) in North Central Zone

States	Commodity Prices (N) in Northcentral Zone/(Kg)																	
	Milled Rice						Yam Tuber						Yam Flour					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Benue	323.13	256.11	-20.74	419.00	290.90	-30.57	268.14	287.00	7.03	522.00	607.10	16.30	290.14	312.00	7.53	371.00	477.60	28.73
Kogi	236.84	222.22	-6.17	222.22	250.00	12.50	121.43	123.08	1.36	100.00	84.21	-15.79	na	na	#VALUE!	na	na	Na
Nassarawa	246.68	321.86	30.48	312.22	342.50	9.70	156.00	230.50	47.76	375.00	551.50	47.07	120.00	67.20	-44.00	101.10	151.90	50.25
FCT	535.00	425.00	-20.56	999.00	525.00	-47.45	350.00	210.00	-40.00	999.00	350.00	-64.96	180.00	180.00	0.00	200.00	200.00	0.00
Plateau	453.49	187.31	-58.70	317.32	285.33	-10.08	na	na	na	na	na	na	na	na	na	na	na	Na
Niger	264.62	207.35	-21.64	267.99	235.81	-12.01	185.28	188.89	1.95	279.05	275.28	-1.35	na	na	na	na	na	Na
Kwara	500.00	400.00	-20.00	400.00	270.00	-32.5	181.00	139.00	-23.20	206.00	175.00	-15.05	207.00	135.00	-34.78	207.00	123.00	-40.58
Z. Mean	709.60	554.73	-21.82	669.34	527.19	-21.24	468.41	456.64	-2.51	642.58	580.16	-9.71	562.83	542.44	-3.62	579.22	594.10	2.57

Processed Rice and Yam commodity prices (N) inSouth South Zone

States	Commodity Prices (N) in Southsouth Zone/(Kg)																	
	Milled Rice						Yam Tuber						Yam Flour					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Akwa Ibom	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	Na
Bayelsa	454.00	471.00	3.74	451.00	465.50	3.22	233.00	250.00	7.30	297.00	240.00	-19.19	na	na	na	na	na	Na
Cross River	370.30	386.67	4.42	370.30	346.67	-6.38	195.30	233.61	19.62	345.90	365.74	5.74	na	na	na	na	na	Na
Delta	480.60	480.60	0.00	480.60	480.60	0.00	415.65	470.80	13.27	470.80	471.58	0.17	na	na	na	na	na	Na
Edo	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	Na
Rivers	500.00	450.00	-10.00	450.00	425.00	-5.56	300.00	300.00	0.00	350.00	260.00	-25.71	na	na	na	na	na	Na
Z. Mean	451.23	447.07	-0.92	437.98	429.44	-1.95	285.99	313.60	9.66	365.93	334.33	-8.63	na	na	na	na	na	Na

Processed Rice and Yam commodity prices (N) inSouth East Zone

States	Commodity Prices (N) in Southeast Zone/(Kg)																	
	Milled Rice						Yam Tuber						Yam Flour					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Enugu	Na	na	na	na	na	na	378.00	160.00	-57.67	345.00	173.00	-49.86	na	na	na	na	na	na
Ebonyi	500.00	300.46	-39.91	500.00	305.00	-39	350.00	263.30	-24.77	500.00	478.00	-4.40	na	na	na	na	na	na
Abia	590.00	454.50	-22.97	565.00	454.50	-19.56	366.00	308.30	-15.77	647.22	500.00	-22.75	na	na	na	na	na	na
Imo	450.00	430.00	-4.44	400.00	435.00	8.75	400.00	510.00	27.50	500.00	512.50	2.50	na	na	na	na	na	na
Anambra	356.00	450.00	26.40	398.00	500.00	25.63	241.00	306.00	26.97	267.00	350.00	31.09	na	na	na	na	na	na
Z. Mean	649.00	408.74	-37.02	640.75	423.63	-33.89	347.00	309.52	-10.80	451.84	402.70	-10.88	na	na	na	na	na	Na

Soybean, Sweet and Irish potato (N)commodity prices (N) inNorth West Zone

States	Commodity Prices (N) in Northwest Zone/(Kg)																	
	Soybeans						Sweet Potato						Irish Potato					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Jigawa	na	na	na	na	na	na	50.00	148.00	196.00	70.00	150.00	114.29	na	na	na	na	na	Na
Zamfara	144.00	132.00	-8.33	165.00	188.00	13.94	200.00	200.00	0.00	400.00	500.00	25.00	1000.00	1200.00	20.00	833.00	900.00	8.04
Kaduna	140.00	150.00	7.14	136.00	160.00	17.65	200.00	600.00	200.00	250.00	200.00	-20.00	750.00	1000.00	33.33	650.00	600.00	-7.69
Katsina	133.33	140.00	5.00	212.50	160.00	-24.71	400.00	400.00	0.00	550.00	500.00	-9.09	143.33	143.33	0.00	150.00	150.00	0.00
Kebbi	230.00	200.00	-13.04	250.00	320.00	28.00	200.00	150.00	-25.00	150.00	200.00	33.33	400.00	370.00	-7.50	450.00	400.00	-11.11
Sokoto	297.53	189.44	-36.33	192.58	219.57	14.01	57.93	69.95	20.75	61.51	109.20	77.53	150.00	190.82	27.21	100.00	200.20	100.20
Kano	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	Na
Z. Mean	188.97	162.29	-14.12	191.22	209.51	9.57	184.66	261.33	41.52	246.92	276.53	11.99	488.67	580.83	18.86	436.60	450.04	3.08

Soybean, Sweet and Irish potato (N)commodity prices (N) inNorth East Zone

States	Commodity Prices (N) in Northeast Zone/(Kg)																	
	Soybeans						Sweet Potato						Irish Potato					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Borno	370	400	8.11	400	400	0.00	150	250	66.67	200	250	25.00	na	na	na	na	na	Na
Yobe	500	450	-10.00	450	438	-2.67	250	287	14.80	210	265	26.19	350	410	17.14	378	413	9.26
Bauchi	103.28	195.04	88.85	162.50	185.03	13.86	61	75.24	23.34	190	180.03	-5.25	270	280.00	3.70	192	200.00	4.17
Gombe	166.66	162.00	-2.80	291.66	221.40	-24.09	200.00	90.30	-54.85	200.00	196.80	-1.60	300.00	175.30	-41.57	400.00	227.50	-43.13
Adamawa	120.00	142.00	18.33	140.00	136.00	-2.86	59.00	55.00	-6.78	60.00	56.00	-6.67	141.00	138.00	-2.13	150.00	136.00	-9.33
Taraba	143.00	140.00	-2.10	230.00	190.00	-17.39	80.00	100.00	25.00	170.00	150.00	-11.76	180.00	190.00	5.56	240.00	160.00	-33.33
Z. Mean	233.82	248.17	6.14	279.03	261.74	-6.20	133.33	142.92	7.19	171.67	182.97	6.59	248.20	238.66	-3.84	272.00	227.30	-16.43

Soybean, Sweet and Irish potato (N)commodity prices (N) inNorth Central Zone

States	Commodity Prices (N) in Northcentral Zone/(Kg)																	
	Soybeans						Sweet Potato						Irish Potato					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Benue	223.00	224.00	0.45	351.00	356.00	1.42	131.80	144.00	9.26	135.00	162.11	20.08	na	na	na	na	na	Na
Kogi	294.10	259.00	-11.93	294.10	300.00	2.01	100.00	400.00	300.00	100.00	120.00	20.00	na	na	na	na	na	Na
Nassarawa	181.11	133.00	-26.56	234.00	225.31	-3.71	183.97	120.00	-34.77	133.30	250.87	88.20	225.00	264.00	17.33	222.22	200.07	-9.97
FCT	235.00	192.86	-17.93	350.25	370.00	5.64	101.29	140.00	38.22	160.59	200.00	24.54	208.33	200.00	-4.00	332.50	181.82	-45.32
Plateau	154.16	174.96	13.49	164.56	166.49	1.17	174.96	166.49	-4.84	177.40	177.50	0.06	na	na	na	na	na	na
Niger	143.21	134.04	-6.40	152.51	184.36	20.88	130.00	138.04	6.18	142.05	156.33	10.05	285.27	372.41	30.55	393.05	240.53	-38.80
Kwara	187.00	187.00	0.00	187.00	162.00	-13.37	86.00	70.00	-18.60	86.00	169.00	96.51	na	na	na	na	na	na
Z. Mean	429.32	415.36	-3.25	468.80	472.77	0.85	365.63	399.57	9.28	368.92	406.73	10.25	683.90	713.60	4.34	741.19	660.11	-10.94

Soybean, Sweet and Irish potato (N)commodity prices (N) inSouth West Zone

States	Commodity Prices (N) in Southwest Zone/(Kg)																	
	Soybeans						Sweet Potato						Irish Potato					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Osun	192.00	195.70	1.93	215.13	169.27	-21.32	141.50	124.12	-12.28	89.74	na	#VALUE!	na	na	na	na	na	na
Oyo	175.00	187.50	7.14	218.75	218.75	0.00	47.77	53.76	12.54	65.14	98.36	51.00	300.00	289.54	-3.49	300.00	300.00	0.00
Ekiti	300.00	350.00	16.67	300.00	380.00	26.67	85.00	95.00	11.76	80.00	95.00	18.75	na	na	na	na	na	na
Ondo	300.00	235.88	-21.37	353.50	390.00	10.33	253.00	172.52	-31.81	290.00	201.00	-30.69	na	na	na	na	na	na
Ogun	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na
Lagos	261.58	261.58	0.00	216.58	216.58	0.00	na	na	na	na	na	na	165.49	169.49	2.42	169.49	177.14	4.51
Z. Mean	245.72	246.13	0.17	260.79	274.92	5.42	131.82	111.35	-15.53	131.22	131.45	0.18	232.75	229.52	-1.39	234.75	238.57	1.63

Soybean, Sweet and Irish potato (N)commodity prices (N) in South West Zone

States	Commodity Prices (N) in Southwest Zone/(Kg)																	
	Soybeans						Sweet Potato						Irish Potato					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Osun	192.00	195.70	1.93	215.13	169.27	-21.32	141.50	124.12	-12.28	89.74	na	#VALUE!	na	na	na	na	na	na
Oyo	175.00	187.50	7.14	218.75	218.75	0.00	47.77	53.76	12.54	65.14	98.36	51.00	300.00	289.54	-3.49	300.00	300.00	0.00
Ekiti	300.00	350.00	16.67	300.00	380.00	26.67	85.00	95.00	11.76	80.00	95.00	18.75	na	na	na	na	na	na
Ondo	300.00	235.88	-21.37	353.50	390.00	10.33	253.00	172.52	-31.81	290.00	201.00	-30.69	na	na	na	na	na	na
Ogun	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na
Lagos	261.58	261.58	0.00	216.58	216.58	0.00	na	na	na	na	na	na	165.49	169.49	2.42	169.49	177.14	4.51
Z. Mean	245.72	246.13	0.17	260.79	274.92	5.42	131.82	111.35	-15.53	131.22	131.45	0.18	232.75	229.52	-1.39	234.75	238.57	1.63

Soybean, Sweet and Irish potato (N)commodity prices (N) in South East Zone

States	Commodity Prices (N) in Southeast Zone/(Kg)																	
	Soybeans						Sweet Potato						Irish Potato					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Enugu	200.00	200.00	0.00	200.00	202.00	1.00	na	na	na	na	na	na	na	na	na	na	na	na
Ebonyi	300.00	330.00	10.00	350.00	350.00	0.00	200.00	223.30	11.65	350.00	na	na	na	na	na	na	na	na
Abia	na	na	na	na	na	na	317.00	315.00	-0.63	500.00	350.00	-30.00	na	na	na	na	na	na
Imo	na	na	na	na	na	na	300.00	410.00	36.67	400.00	415.00	3.75	na	na	na	na	na	na
Anambra	na	na	na	na	na	na	na	na	na	na	na	na	394.00	400.00	1.52	400.00	445.00	11.25
Z. Mean	250.00	265.00	5.0	250.00	276.00	0.5	272.33	316.10	16.07	416.67	382.50	-8.20	394.00	400.00	1.52	400.00	445.00	11.25

Soybean, Sweet and Irish potato (N)commodity prices (N) inSouth South Zone

States	Commodity Prices (N) in Southsouth Zone/(Kg)																	
	Soybeans						Sweet Potato						Irish Potato					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Akwa Ibom	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na
Bayelsa	na	na	na	na	na	na	160.00	142.00	-11.25	173.00	163.50	-5.49	na	na	na	na	na	na
Cross River	333.40	400.09	20.00	341.10	320.00	-6.19	65.12	72.31	11.04	67.14	72.44	7.89	420.00	500.00	19.05	425.00	500.00	17.65
Delta	na	na	na	na	na	na	203.45	325.80	60.14	305.50	326.00	6.71	na	na	na	na	na	na
Edo	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na
Rivers	na	na	na	na	na	na	200.00	140.00	-30.00	200.00	200.00	0.00	250.00	300.00	20.00	300.00	300.00	0.00
Z. Mean	333.40	400.09	20.00	341.10	320.00	-6.19	157.14	170.03	8.20	186.41	190.49	2.19	335.00	400.00	19.40	362.50	400.00	10.34

Processes Cassavacommodity prices (N) inNorth East Zone

States	Commodity Prices (N) in Northeast Zone/(Kg)																	
	Cassava Tuber						Cassava Garri						Cassava Flour					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Borno	na	na	na	na	na	na	300	400	33.33	450	400	-11.11	650	700	7.69	700	723	3.29
Yobe	150	170	13.33	176	180	2.27	311	404	29.90	467	489	4.71	700	760	8.57	721	765	6.10
Bauchi	100	110	10.00	108	120.00	11.11	203.35	245.00	20.48	225.00	235.46	4.65	178.18	140.25	-21.29	187.00	195.85	4.73
Gombe	200.00	130.50	-34.75	150.00	140.90	-6.07	230.00	240.00	4.35	260.00	226.00	-13.08	300.00	227.00	-24.33	389.00	228.70	-41.21
Adamawa	120.00	100.00	-16.67	145.00	155.00	6.90	110.00	150.00	36.36	110.00	130.00	18.18	55.00	67.00	21.82	56.00	70.00	25.00
Taraba	100.00	90.00	-10.00	100.00	80.00	-20.00	na	na	na	na	na	na	225.00	170.00	-24.44	300.00	180.00	-40.00
Z. Mean	134.00	120.10	-10.37	135.80	135.18	-0.46	230.87	287.80	24.66	302.40	296.09	-2.09	351.36	344.04	-2.08	392.17	360.43	-8.09

Processed Cassava commodity prices (N) inNorth West Zone

States	Commodity Prices (N) in Northwest Zone/(Kg)																	
	Cassava Tuber						Cassava Garri						Cassava Flour					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Jigawa	50.00	95.00	90.00	60.00	100.00	66.67	333.00	170.00	-48.95	180.00	150.00	-16.67	na	na	na	na	na	na
Zamfara	150.00	300.00	100.00	150.00	150.00	0.00	295.00	182.00	-38.31	318.00	186.00	-41.51	na	na	na	na	na	na
Kaduna	120.00	150.00	25.00	125.00	165.00	32.00	200.00	250.00	25.00	245.00	160.00	-34.69	120.00	180.00	50.00	125.00	200.00	60.00
Katsina	80.00	120.00	50.00	110.00	115.40	4.91	208.30	200.00	-3.98	250.00	180.00	-28.00	89.08	100.00	12.26	153.90	104.20	-32.29
Kebbi	na	na	na	na	na	na	320.00	300.00	-6.25	230.00	200.00	-13.04	na	na	na	na	na	na
Sokoto	87.24	66.14	-24.19	90.40	105.50	16.70	256.75	273.81	6.64	297.78	232.71	-21.85	na	na	na	na	na	na
Kano	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na
Z. Mean	97.45	146.23	50.06	107.08	127.18	18.77	268.84	229.30	-14.71	253.46	184.79	-27.10	104.54	140.00	33.92	139.45	152.10	9.07

Processed Cassava commodity prices (N) inNorth Central Zone

States	Commodity Prices (N) in Northcentral Zone/(Kg)																	
	Cassava Tuber						Cassava Garri						Cassava Flour					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Benue	97.30	102.66	5.51	196.70	227.00	15.40	198.00	201.20	1.62	221.00	237.80	7.60	147.10	163.90	11.42	153.00	194.00	26.80
Kogi	20.00	22.50	12.50	25.00	24.50	-2.00	375.00	141. 67		154.17	10a. 16		307.69	416.67	35.42	300.00	461.54	53.85
Nassarawa	76.53	132.32	72.90	133.00	233.57	75.62	275.56	212.58	-22.86	285.00	177.58	-37.69	193.50	64.12	-66.86	86.93	93.35	7.39
FCT	na	na	na	na	na	na	255.00	190.00	-25.49	300.00	200.00	-33.33	200.00	150.00	-25.00	282.22	250.00	-11.42
Plateau	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na
Niger	97.60	89.23	-8.58	133.45	111.66	-16.33	292.05	195.07	-33.21	250.02	194.00	-22.41	147.06	151.45	2.99	228.14	145.55	-36.20
Kwara	24.00	23.00	-4.17	35.00	18.00	-48.57	150.00	184.21	22.81	250.00	153.20	-38.72	1038.46	1038.46	0.00	1038.46	1500.00	44.44
Z. Mean	388.74	397.95	2.37	423.36	438.79	3.64	508.94	500.18	-1.72	496.74	496.76	0.00	578.69	571.80	-1.19	586.54	666.06	13.56

Processed Cassavacommodity prices (N) inSouth West Zone

States	Commodity Prices (N) in Southwest Zone/(Kg)																	
	Cassava Tuber						Cassava Garri						Cassava Flour					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Osun	47.58	21.12	-55.61	92.07	14.50	-84.25	180.50	170.46	-5.56	183.94	134.23	-27.03	185.50	154.14	-16.91	139.00	200.00	43.88
Oyo	17.95	21.23	18.27	27.94	15.27	-45.35	175.00	116.66	-33.34	166.66	91.66	-45.00	250.00	212.50	-15.00	375.00	250.00	-33.33
Ekiti	15.00	17.00	13.33	18.00	19.00	5.56	480.00	450.00	-6.25	350.00	300.00	-14.29	300.00	350.00	16.67	300.00	350.00	16.67
Ondo	27.00	10.95	-59.44	37.50	17.00	-54.67	252.00	166.57	-33.90	350.50	128.75	-63.27	210.00	233.00	10.95	218.00	250.00	14.68
Ogun	18.50	18.55	0.27	31.40	34.45	9.71	400.00	400.50	0.13	676.65	676.60	-0.01	450.00	450.50	0.11	732.80	761.15	3.87
Lagos	17.00	54.05	217.94	30.65	54.65	78.30	185.49	150.32	-18.96	198.72	129.03	-35.07	227.27	195.84	-13.83	195.84	140.72	-28.15
Z. Mean	23.84	23.82	-0.09	39.59	25.81	-34.81	278.83	242.42	-13.06	321.08	243.38	-24.20	270.46	266.00	-1.65	326.77	325.31	-0.45

Processed Cassava commodity prices (N) inSouth East Zone

States	Commodity Prices (N) in Southeast Zone/(Kg)																	
	Cassava Tuber						Cassava Garri						Cassava Flour					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Enugu	45.00	24.00	-46.67	38.00	22.00	-42.11	375.00	200.00	-46.67	375.00	700.00	86.67	na	na	na	na	na	na
Ebonyi	200.00	53.35	-73.33	250.00	52.25	-79.10	300.00	186.85	-37.72	400.00	186.00	-53.50	na	na	na	na	na	na
Abia	50.00	30.00	-40.00	73.33	35.00	-52.27	330.00	203.91	-38.21	400.00	180.00	-55.00	160.00	200.00	25.00	180.00	200.00	11.11
Imo	40.00	45.00	12.50	50.00	46.00	-8.00	500.00	300.00	-40.00	600.00	350.00	-41.67	400.00	310.00	-22.50	350.00	360.00	2.86
Anambra	66.00	78.00	18.18	70.00	90.00	28.57	na	231.00	#VALUE!	3000.00	264.00	-91.20	na	na	na	na	na	na
Z. Mean	80.20	46.07	-42.56	96.27	49.05	-49.05	376.25	224.35	-40.37	955.00	336.00	-64.82	280.00	255.00	-8.93	265.00	280.00	5.66

Processed Cassava commodity prices (N) inSouth South Zone

States	Commodity Prices (N) in Southsouth Zone/(Kg)																	
	Cassava Tuber						Cassava Garri						Cassava Flour					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Akwa Ibom	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na
Bayelsa	65.00	78.00	20.00	65.00	75.00	15.38	397.00	388.00	-2.27	424.50	392.00	-7.66	na	na	na	na	na	na
Cross River	38.45	35.92	-6.58	54.02	30.98	-42.65	220.10	168.57	-23.41	365.70	94.45	-74.17	na	na	na	na	na	na
Delta	na	na	na	na	na	na	205.55	347.20	68.91	345.70	346.25	0.16	205.55	347.20	68.91	345.70	346.25	0.16
Edo	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na
Rivers	120.00	112.00	-6.67	125.00	120.00	-4.00	225.00	125.00	-44.44	300.00	120.00	-60.00	na	na	na	na	na	na
Z. Mean	74.48	75.31	1.11	81.34	75.33	-7.39	261.91	257.19	-1.80	358.98	238.18	-33.65	205.55	347.20	68.91	345.70	346.25	0.16

Meat commodity prices (N) inNorth East Zone

States	Commodity Prices (N) in Northeast Zone/(Kg)																	
	Beef						Goat Meat						Mutton					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Borno	700	850	21.43	750	600	-20.00	750	900	20.00	800	950	18.75	750	900	20.00	800	950	18.75
Yobe	1200	1321	10.08	1250	1280	2.40	900	950	5.56	900	1100	22.22	1400	1450	3.57	760	890	17.11
Bauchi	1000.00	1300.00	30.00	1200.00	1250.00	4.17	900.00	860.00	-4.44	1100.00	800.00	-27.27	850.00	720.00	-15.29	1100.00	1200.00	9.09
Gombe	1000.00	1000.00	0.00	1022.20	1200.00	17.39	800.00	917.00	14.63	1000.00	900.00	-10.00	1000.00	1000.00	0.00	1000.00	1000.00	0.00
Adamawa	1200.00	700.00	-41.67	1100.00	1000.00	-9.09	350.00	365.00	4.29	300.00	400.00	33.33	1000.00	930.00	-7.00	900.00	750.00	-16.67
Taraba	1200.00	1200.00	0.00	1200.00	1200.00	0.00	900.00	900.00	0.00	900.00	900.00	0.00	850.00	850.00	0.00	850.00	900.00	5.88
Z. Mean	1050.00	1061.83	1.13	1087.03	1088.33	0.12	766.67	815.33	6.35	833.33	841.67	1.00	975.00	975.00	0.00	901.67	948.33	5.18

Meat commodity prices (N) inNorth West Zone

States	Commodity Prices (N) in Northwest Zone/(Kg)																	
	Beef						Goat Meat						Mutton					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Jigawa	650.00	600.00	-7.69	600.00	650.00	8.33	450.00	500.00	11.11	500.00	300.00	-40.00	na	na	na	na	na	na
Zamfara	1200.00	1250.00	4.17	1400.00	1200.00	-14.29	1500.00	1100.00	-26.67	1200.00	1000.00	-16.67	1600.00	1100.00	-31.25	1800.00	1200.00	-33.33
Kaduna	na	na	na	na	na	na	1000.00	1000.00	0.00	1100.00	1100.00	0.00	1000.00	1100.00	10.00	850.00	1000.00	17.65
Katsina	1000.00	1000.00	0.00	1000.00	1000.00	0.00	1200.00	1200.00	0.00	1200.00	1200.00	0.00	1200.00	1200.00	0.00	1200.00	1200.00	0.00
Kebbi	1500.00	1300.00	-13.33	1500.00	1300.00	-13.33	1500.00	1500.00	0.00	1600.00	1500.00	-6.25	1500.00	1500.00	0.00	1600.00	1500.00	-6.25
Sokoto	964.35	961.90	-0.25	879.36	809.18	-7.98	523.21	657.93	25.75	520.00	602.98	15.96	768.75	1012.01	31.64	667.07	877.40	31.53
Kano	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na
Z. Mean	1062.87	1022.38	-3.81	1075.87	991.84	-7.81	1028.87	992.99	-3.49	1020.00	950.50	-6.81	1213.75	1182.40	-2.58	1223.41	1155.48	-5.55

Meat commodity prices (N) inNorth Central Zone

States	Commodity Prices (N) in Northcentral Zone/(Kg)																	
	Beef						Goat Meat						Mutton					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Benue	1491.70	1757.00	17.79	1221.00	1501.00	22.93	1392.00	1479.20	6.26	1123.00	1479.80	31.77	1307.50	1477.71	13.02	1502.00	1728.00	15.05
Kogi	1500.00	1200.00	-20.00	1300.00	1200.00	-7.69	1500.00	1100.00	-26.67	1300.00	1250.00	-3.85	na	na	na	na	na	na
Nassarawa	1000.00	1357.75	35.78	1200.00	1300.00	8.33	1275.00	1300.00	1.96	953.00	1376.00	44.39	900.00	1260.10	40.01	844.00	976.08	15.65
FCT	1400.00	1400.00	0.00	1400.00	1400.00	0.00	1400.00	1400.00	0.00	1400.00	1400.00	0.00	1300.00	1300.00	0.00	1400.00	1400.00	0.00
Plateau	1163.91	1089.59	-6.39	1085.51	1105.75	1.86	969.36	967.56	-0.19	850.16	693.75	-18.40	1074.16	1022.25	-4.83	na	na	na
Niger	1100.00	973.43	-11.51	956.07	1008.66	5.50	764.66	728.24	-4.76	789.93	823.84	4.29	754.85	686.41	-9.07	723.27	907.30	25.44
Kwara	1038.46	1038.46	0.00	1038.46	1500.00	44.44	700.00	700.00	0.00	700.00	700.00	0.00	na	na	na	na	na	na
Z. Mean	1338.88	1354.28	1.15	1277.26	1379.18	7.98	1252.25	1211.63	-3.24	1141.64	1217.67	6.66	1225.59	1294.08	5.59	1297.25	1405.88	8.37

Meat commodity prices (N) inSouth West Zone

States	Commodity Prices (N) in Southwest Zone/(Kg)																	
	Beef						Goat Meat						Mutton					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Osun	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na
Oyo	1201.59	1230.76	2.43	1200	1273.88	6.16	1196.16	1011.9	-15.40	1327.43	1349.25	1.64	na	na	na	na	na	na
Ekiti	1400.00	1450.00	3.57	1400.00	1500.00	7.14	1500	1600	6.67	1500	1700	13.33	na	na	na	na	na	na
Ondo	1000.00	1000.00	0.00	1200.00	1200.00	0.00	850.00	610.00	-28.24	875.00	700.00	-20.00	800.00	1000.00	25.00	800.00	950.00	18.75
Ogun	na	na	na	na	na	na	1200.00	1200.00	0.00	2013.00	2013.50	0.02	na	na	na	na	na	na
Lagos	1000	1000	0.00	1000	1000	0.00	1100	950	-13.64	1050	950	-9.52	na	na	na	na	na	na
Z. Mean	1150.40	1170.19	1.72	1200.00	1243.47	3.62	1169.23	1074.38	-8.11	1353.09	1342.55	-0.78	na	na	na	na	na	na

Meat commodity prices (N) inSouth East Zone

States	Commodity Prices (N) in Southeast Zone/(Kg)																	
	Beef						Goat Meat						Mutton					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Enugu	1700.00	1600.00	-5.88	1852.00	1570.00	-15.23	1801.00	1700.00	-5.61	1871.00	1700.00	-9.14	na	na	na	na	na	na
Ebonyi	1600.00	1633.30	2.08	1600.00	1700.00	6.25	1500.00	1416.70	-5.55	1500.00	1475.00	-1.67	1200.00	1475.00	22.92	1200.00	1500.00	25.00
Abia	1283.00	1350.60	5.27	1416.60	1650.00	16.48	1438.00	2150.00	49.51	2500.00	2500.00	0.00	na	na	na	na	na	na
Imo	1600.00	1650.00	3.13	1650.00	1650.00	0.00	1600.00	1560.00	-2.50	1550.00	1580.00	1.94	na	na	na	na	na	na
Anambra	1200.00	1450.00	20.83	1340.00	1500.00	11.94	911.00	1200.00	31.72	1020.00	1400.00	37.25	na	na	na	na	na	na
Z. Mean	1476.60	1536.78	4.08	1571.72	1614.00	2.69	1450.00	1605.34	10.71	1688.20	1731.00	2.54	1200.00	1475.00	22.92	1200.00	1500.00	25.00

Meat commodity prices (N) inSouth South Zone

States	Commodity Prices (N) in Southsouth Zone/(Kg)																	
	Beef						Goat Meat						Mutton					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Akwa Ibom	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na
Bayelsa	900.00	940.00	4.44	800.00	940.00	17.50	904.00	1080.00	19.47	955.50	1035.00	8.32	na	na	na	na	na	na
Cross River	1967.30	1970.50	0.16	2011.40	2106.27	4.72	2083.00	1989.06	-4.51	2183.20	2500.00	14.51	na	na	na	na	na	na
Delta	na	na	na	na	na	na	1550.00	1650.00	6.45	1550.00	1650.00	6.45	na	na	na	na	na	na
Edo	na	na	na	na	na	na	na	na	#VALUE!	na	na	#VALUE!	na	na	na	na	na	na
Rivers	1700.00	1600.00	-5.88	1800.00	1600.00	-11.11	1650.00	2200.00	33.33	2100.00	2500.00	19.05	na	na	na	na	na	na
Z. Mean	1522.43	1503.50	-1.24	1537.13	1548.76	0.76	1546.75	1729.77	11.83	1697.18	1921.25	13.20	na	na	na	na	na	na

Fish commodity prices (N) inNorth East Zone

States	Commodity Prices (N) in Northeast Zone/(Kg)																	
	Fresh Fish						Dry Fish						Frozen Fish					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Borno	na	na	#VALUE!	na	na	#VALUE!	750	850	13.33	na	na	na	na	na	na	na	na	na
Yobe	522	650	24.52	589	689	16.98	900	1050	16.67	na	na	na	na	na	na	na	na	na
Bauchi	450	520.00	15.56	500.00	552.21	10.44	1000.00	850.00	-15.00	1100.00	1100.00	0.00	380	410.00	7.89	400	570.00	42.50
Gombe	600.00	800.00	33.33	800.00	900.00	12.50	800.00	1000.00	25.00	1000.00	900.00	-10.00	330	350.00	6.06	390	350.00	-10.26
Adamawa	500.00	700.00	40.00	550.00	600.00	9.09	750.00	700.00	-6.67	950.00	909.00	-4.32	1000.00	1200.00	20.00	1100.00	1000.00	-9.09
Taraba	1300.00	1500.00	15.38	1400.00	1500.00	7.14	1000	870	-13.00	1050	1099	4.67	na	na	na	na	na	na
Z. Mean	674.40	834.00	23.67	767.80	848.24	10.48	866.67	886.67	2.31	1025.00	1002.00	-2.24	570.00	653.33	14.62	630.00	640.00	1.59

Fish commodity prices (N) inNorth West Zone

States	Commodity Prices (N) in Northwest Zone/(Kg)																	
	Fresh Fish						Dry Fish						Frozen Fish					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Jigawa	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na
Zamfara	500.00	700.00	40.00	1100.00	900.00	-18.18	650.00	750.00	15.38	700.00	600.00	-14.29	1000.00	700.00	-30.00	1000.00	700.00	-30.00
Kaduna	1050.00	1200.00	14.29	1150.00	1200.00	4.35	1350.00	1400.00	3.70	1500.00	1300.00	-13.33	700.00	850.00	21.43	750.00	850.00	13.33
Katsina	650.00	700.00	7.69	850.00	850.00	0.00	na	na	na	na	na	na	na	na	na	na	na	na
Kebbi	800.00	750.00	-6.25	850.00	800.00	-5.88	1200.00	1000.00	-16.67	800.00	800.00	0.00	na	na	na	na	na	na
Sokoto	520.00	980.00	88.46	535.00	801.96	49.90	730.27	550.25	-24.65	658.08	962.54	46.26	608.33	1041.67	71.23	755.44	1107.96	46.66
Kano	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na
Z. Mean	704.00	866.00	23.01	897.00	910.39	1.49	982.57	925.06	-5.85	914.52	915.64	0.12	769.44	863.89	12.27	835.15	885.99	6.09

Fish commodity prices (N) inNorth East Zone

States	Commodity Prices (N) in Northeast Zone/(Kg)																	
	Fresh Fish						Dry Fish						Frozen Fish					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Benue	na	na	na	na	na	na	2481.00	2552.00	2.86	2203.00	2601.00	18.07	1491.20	1601.00	7.36	1491.20	1711.70	14.79
Kogi	700.00	750.00	7.14	650.00	600.00	-7.69	na	na	na	na	na	na	300.00	250.00	-16.67	275.00	250.00	-9.09
Nassarawa	450.00	600.00	33.33	550.00	700.00	27.27	1450.00	2435.90	67.99	1135.33	1513.30	33.29	250.00	852.10	240.84	320.00	300.00	-6.25
FCT	900.00	1000.00	11.11	1000.00	900.00	-10.00	2500.00	2000.00	-20.00	2300.00	2800.00	21.74	1300.00	1300.00	0.00	1400.00	1400.00	0.00
Plateau	773.26	1089.64	40.92	850.10	693.75	-18.39	1357.62	1338.89	-1.38	1138.48	1140.38	0.17	na	na	na	na	na	na
Niger	710.74	739.14	4.00	762.70	647.70	-15.08	934.28	1183.93	26.72	1063.26	1087.61	2.29	na	na	na	na	na	na
Kwara	750.00	750.00	0.00	700.00	700.00	0.00	1500.00	1500.00	0.00	1500.00	1400.00	-6.67	680.00	760.00	11.76	700.00	700.00	0.00
Z. Mean	900.14	992.40	10.25	932.83	894.21	-4.14	1748.56	1861.25	6.44	1622.44	1794.33	10.59	1006.37	1130.18	12.30	1033.87	1063.28	2.85

Fish commodity prices (N) inSouth West Zone

States	Commodity Prices (N) in Southwest Zone/(Kg)																	
	Fresh Fish						Dry Fish						Frozen Fish					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Osun	576.00	600.36	4.23	390.19	453.12	16.13	na	na	na	na	na	na	576.00	600.36	4.23	390.19	453.12	16.13
Oyo	903.22	731.70	-18.99	802.46	797.10	-0.67	1333.33	1450.00	8.75	1666.66	1750.00	5.00	235.29	326.08	38.59	503.36	760.00	50.99
Ekiti	1200.00	1200.00	0.00	1300.00	1300.00	0.00	700.00	700.00	0.00	750.00	800.00	6.67	700.00	800.00	14.29	750.00	850.00	13.33
Ondo	1150.00	920.00	-20.00	1200.00	800.00	-33.33	1700.00	1850.00	8.82	1900.00	2100.00	10.53	950.00	713.00	-24.95	950.00	950.00	0.00
Ogun	655.00	660.00	0.76	1046.00	1046.50	0.05	700.00	700.50	0.07	1207.80	1207.90	0.01	650.00	650.00	0.00	1087.00	1087.00	0.00
Lagos	700.00	670.00	-4.29	720.00	670.00	-6.94	2200.00	2200.00	0.00	2300.00	2200.00	-4.35	850.00	850.00	0.00	850.00	850.00	0.00
Z. Mean	864.04	797.01	-7.76	909.78	844.45	-7.18	1326.67	1380.10	4.03	1564.89	1611.58	2.98	660.22	656.57	-0.55	755.09	825.02	9.26

Fish commodity prices (N) inSouth East Zone

States	Commodity Prices (N) in Southeast Zone/(Kg)																	
	Fresh Fish						Dry Fish						Frozen Fish					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Enugu	1200.00	1100.00	-8.33	1276.00	1200.00	-5.96	2800.00	2500.00	-10.71	2828.00	2500.00	-11.60	na	na	na	na	na	na
Ebonyi	1300.00	1380.00	6.15	1300.00	1380.00	6.15	1500.00	1516.70	1.11	2500.00	4400.00	76.00	1100.00	1250.00	13.64	1200.00	1350.00	12.50
Abia	900.00	900.00	0.00	988.00	1200.00	21.46	1431.40	2133.33	49.04	1750.00	2500.00	42.86	750.00	600.00	-20.00	800.00	850.00	6.25
Imo	960.00	860.00	-10.42	850.00	865.00	1.76	1000.00	1100.00	10.00	900.00	1200.00	33.33	900.00	920.00	2.22	900.00	950.00	5.56
Anambra	na	820.00	#VALUE!	1000.00	1200.00	20.00	1637.00	1950.00	19.12	1850.00	2145.00	15.95	750.00	880.00	17.33	795.00	970.00	22.01
Z. Mean	1090.00	1012.00	-7.16	1082.80	1169.00	7.96	1673.68	1840.01	9.94	1965.60	2549.00	29.68	875.00	912.50	4.29	923.75	1030.00	11.50

Fish commodity prices (N) inSouth South Zone

States	Commodity Prices (N) in Southsouth Zone/(Kg)																	
	Fresh Fish						Dry Fish						Frozen Fish					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Akwa Ibom	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na
Bayelsa	647.00	575.00	-11.13	637.00	607.50	-4.63	541.50	500.00	-7.66	575.00	545.00	-5.22	397.00	320.00	-19.40	450.00	335.00	-25.56
Cross River	1698.50	1555.56	-8.42	1698.70	1822.22	7.27	2088.60	1685.12	-19.32	2018.20	2030.30	0.60	na	na	na	na	na	na
Delta	1250.00	1450.00	16.00	1450.00	1450.00	0.00	1450.00	1550.00	6.90	1550.00	1550.00	0.00	625.00	625.00	0.00	655.00	625.00	-4.58
Edo	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na
Rivers	1300.00	1200.00	-7.69	1400.00	1500.00	7.14	2058.00	2500.00	21.48	2300.00	2500.00	8.70	1200.00	1400.00	16.67	1300.00	1600.00	23.08
Z. Mean	1223.88	1195.14	-2.35	1296.43	1344.93	3.74	1534.53	1558.78	1.58	1610.80	1656.33	2.83	740.67	781.67	5.54	801.67	853.33	6.44

Cowpea, Groundnut and Gingercommodity prices (N) inNorth East Zone

States	Commodity Prices (N) in Northeast Zone/(Kg)																	
	Cowpea						Ginger						Groundnut					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Borno	140	250	78.57	300	500	66.67	na	na	na	na	na	na	220	250	13.64	253	400	58.10
Yobe	230	360	56.52	350	420	20.00	na	na	na	na	na	na	450	na	na	na	na	na
Bauchi	187.50	258.38	37.80	270.84	368.46	36.04	230.00	249.00	8.26	353.40	400.00	13.19	317.20	292.38	-7.82	315.00	330.00	4.76
Gombe	250.00	269.00	7.60	271.42	333.80	22.98	650.00	999.00	53.69	800.00	1389.97	73.75	333.33	222.00	-33.40	375.00	400.00	6.67
Adamawa	100.00	160.00	60.00	140.00	165.00	17.86	250.00	270.00	8.00	200.00	2400.00	1100.00	120.00	120.00	0.00	140.00	120.00	-14.29
Taraba	265.00	250.00	-5.66	500.00	340.00	-32.00	na	na	na	na	na	na	300.00	240.00	-20.00	430.00	200.00	-53.49
Z. Mean	195.42	257.90	31.97	305.38	354.54	16.10	376.67	506.00	34.34	451.13	1396.66	209.59	290.09	224.88	-22.48	302.60	290.00	-4.16

Cowpea, Groundnut and Gingercommodity prices (N) in Northwest Zone

States	Commodity Prices (N) in Northwest Zone/(Kg)																	
	Cowpea						Ginger						Groundnut					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Jigawa	240.00	226.00	-5.83	320.00	320.00	0.00	na	na	na	na	na	na	196.00	220.00	12.24	286.00	285.00	-0.35
Zamfara	200.00	280.00	40.00	340.00	340.00	0.00	945.00	833.00	-11.85	833.00	708.00	-15.01	320.00	140.00	-56.25	550.00	260.00	-52.73
Kaduna	350.00	400.00	14.29	400.00	450.00	12.50	1000.00	1000.00	0.00	1800.00	2500.00	38.89	320.00	350.00	9.38	400.00	450.00	12.50
Katsina	236.00	220.20	-6.69	317.30	240.00	-24.36	na	na	na	na	na	na	234.20	220.00	-6.06	317.70	240.00	-24.46
Kebbi	300.00	400.00	33.33	600.00	500.00	-16.67	na	na	na	na	na	na	200.00	100.00	-50.00	150.00	150.00	0.00
Sokoto	246.54	286.05	16.03	288.68	283.95	-1.64	337.17	307.54	-8.79	301.48	307.96	2.15	234.32	330.39	41.00	267.69	284.79	6.39
Kano	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na
Z. Mean	262.09	302.04	15.24	377.66	355.66	-5.83	760.72	713.51	-6.21	978.16	1171.99	19.82	250.75	226.73	-9.58	328.57	278.30	-15.30

Cowpea, Groundnut and Gingercommodity prices (N) in North Central Zone

States	Commodity Prices (N) in Northcentral Zone/(Kg)																	
	Cowpea						Ginger						Groundnut					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Benue	211.00	231.80	9.86	227.00	258.10	13.70	232.10	247.60	6.68	288.00	307.10	6.63	391.70	481.00	22.80	421.26	487.20	15.65
Kogi	400.00	307. 14	#VALUE!	357.14	321.14	-10.08	na	na	#VALUE!	na	na	#VALUE!	160.00	200	25	200.00	250	25
Nassarawa	347.61	260.05	-25.19	263.75	525.30	99.17	1010.10	243.69	-75.87	725.57	425.05	-41.42	133.20	256.65	92.68	441.50	417.73	-5.38
FCT	312.50	364.58	16.67	398.96	525.00	31.59	na	na	na	na	na	na	575.00	380.00	-33.91	450.00	400.00	-11.11
Plateau	na	na	na	na	na	na	na	na	na	na	na	na	233.18	206. 68		259.86	256.98	-1.11
Niger	238.03	333.84	40.25	313.43	296.75	-5.32	na	na	na	na	na	na	647.46	255.68	-60.51	491.26	250.73	-48.96
Kwara	312.50	380.00	21.60	380.00	375.00	-1.32	na	na	na	na	na	na	na	na	na	na	na	na
Z. Mean	548.38	598.05	9.06	565.33	617.04	9.15	1086.40	836.43	-23.01	1010.19	916.72	-9.25	593.93	678.27	14.20	611.55	638.44	4.40

Cowpea, Groundnut and Gingercommodity prices (N) in South West Zone

States	Commodity Prices (N) in Southwest Zone/(Kg)																	
	Cowpea						Ginger						Groundnut					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Osun	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na
Oyo	281.25	375.00	33.33	375.00	375.00	0.00	na	na	na	na	na	na	433.33	357.14	-17.58	625.00	300.00	-52.00
Ekiti	650.00	450.00	-30.77	750.00	780.00	4.00	na	na	na	na	na	na	550.00	500.00	-9.09	600.00	600.00	0.00
Ondo	350.00	450.00	28.57	360.00	790.00	119.44	na	na	na	na	na	na	475.00	475.00	0.00	500	500.00	0.00
Ogun	700.00	700.00	0.00	603.50	603.50	0.00	na	na	na	na	na	na	562.50	562.50	0.04	676.00	676.00	0.00
Lagos	314.28	357.14	13.64	357.14	450.12	26.03	145.36	130.21	-10.42	145.36	120.12	-17.36	175.00	229.62	31.21	200.00	304.29	52.15
Z. Mean	459.11	466.43	1.59	609.83	720.42	18.14	145.36	130.21	-10.42	145.36	120.12	-17.36	646.67	632.45	-2.20	855.40	811.26	-5.16

Cowpea, Groundnut and Gingercommodity prices (N) in South East Zone

States	Commodity Prices (N) in Southeast Zone/(Kg)																	
	Cowpea						Ginger						Groundnut					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Enugu	325.00	300.00	-7.69	325.00	347.00	6.77	na	na	na	na	na	na	420.00	421.00	0.24	421.00	420.00	-0.24
Ebonyi	600.00	441.70	-26.38	600.00	462.50	-22.92	na	na	na	na	na	na	400.00	411.70	2.93	500.00	550.00	10.00
Abia	400.00	325.00	-18.75	700.00	650.00	-7.14	na	na	na	na	na	na	400.00	340.00	-15.00	666.00	400.00	-39.94
Imo	450.00	500.00	11.11	500.00	510.00	2.00	na	na	na	na	na	na	700.00	730.00	4.29	720.00	732.50	1.74
Anambra	367.00	5000.00	1262.40	450.00	500.00	11.11	na	na	na	na	na	na	390.00	420.00	7.69	405.00	450.00	11.11
Z. Mean	548.40	1313.34	139.49	635.00	493.90	-22.22	na	na	na	na	na	na	462.00	464.54	0.55	542.40	510.50	-5.88

Cowpea, Groundnut and Gingercommodity prices (N) in South South Zone

States	Commodity Prices (N) in Southsouth Zone/(Kg)																	
	Cowpea						Ginger						Groundnut					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Akwa Ibom	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na
Bayelsa	472.00	421.00	-10.81	522.50	445.50	-14.74	na	na	na	na	na	na	398.00	358.00	-10.05	433.00	364.00	-15.94
Cross River	305.50	333.33	9.11	330.10	360.00	9.06	na	na	na	na	na	na	488.30	508.09	4.05	489.40	375.32	-23.31
Delta	380.00	380.00	0.00	380.00	390.00	2.63	na	na	Na	na	na	na	na	na	na	na	na	na
Edo	na	na	na	na	na	na	na	na	Na	na	na	na	na	na	na	na	na	na
Rivers	350.00	400.00	14.29	375.00	375.00	0.00	350.00	300.00	-14.29	350.00	300.00	-14.29	375.00	350.00	-6.67	350.00	325.00	-7.14
Z. Mean	376.88	383.58	1.78	401.90	392.63	-2.31	350.00	300.00	-14.29	350.00	300.00	-14.29	420.43	405.36	-3.58	424.13	354.77	-16.35

Poultry and paddy rice commodity prices (N) in North East Zone

States	Commodity Prices (N) in Northeast Zone/(Kg)																	
	Chicken						Egg						Paddy Rice					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Borno	950	1000	5.26	850	1200	41.18	950	1050	10.53	1000	1150	15.00	na	na	na	na	na	na
Yobe	1150	1200	4.35	1167	1230	5.40	950	1100	15.79	1000	1067	6.70	na	na	na	na	na	na
Bauchi	590.00	700.00	18.64	622.20	680.00	9.29	1000.00	950.00	-5.00	900.00	900.00	0.00	65.00	80.00	23.08	98.00	138.46	41.29
Gombe	1400.00	1517.70	8.41	1750.00	1733.33	-0.95	850.00	800.00	-5.88	900.00	800.00	-11.11	100.00	163.40	63.40	175.00	184.33	5.33
Adamawa	900.00	950.00	5.56	900.00	850.00	-5.56	1000.00	1050.00	5.00	1050.00	1100.00	4.76	na	na	na	na	na	na
Taraba	3000.00	3000.00	0.00	2500.00	2500.00	0.00	1200.00	1400.00	16.67	1200.00	1400.00	16.67	120.00	100.00	-16.67	180.00	110.00	-38.89
Z. Mean	1331.67	1394.62	4.73	1298.20	1365.56	5.19	991.67	1058.33	6.72	1008.33	1069.50	6.07	95.00	114.47	20.49	151.00	144.26	-4.46

Poultry and paddy rice commodity prices (N) in North West Zone

States	Commodity Prices (N) in Northwest Zone/(Kg)																	
	Chicken						Egg						Paddy Rice					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Jigawa	560.00	450.00	-19.64	900.00	650.00	-27.78	na	na	na	na	na	na	na	na	na	na	na	na
Zamfara	1250.00	850.00	-32.00	750.00	1199.00	59.87	1100.00	800.00	-27.27	800.00	1200.00	50.00	159.00	114.00	-28.30	150.00	108.00	-28.00
Kaduna	600.00	600.00	0.00	800.00	950.00	18.75	800.00	900.00	12.50	850.00	900.00	5.88	200.00	250.00	25.00	250.00	250.00	0.00
Katsina	1000.00	1000.00	0.00	1200.00	1400.00	16.67	800.00	1000.00	25.00	1000.00	1200.00	20.00	na	na	na	na	na	na
Kebbi	2000.00	1800.00	-10.00	1900.00	1900.00	0.00	1250.00	1100.00	-12.00	1200.00	1050.00	-12.50	200.00	200.00	0.00	200.00	150.00	-25.00
Sokoto	545.28	900.01	65.05	613.91	627.74	2.25	800.00	800.00	0.00	900.00	900.00	0.00	238.28	191.50	-19.63	200.11	244.65	22.26
Kano	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na
Z. Mean	1079.06	1030.00	-4.55	1052.78	1215.35	15.44	950.00	920.00	-3.16	950.00	1050.00	10.53	199.32	188.88	-5.24	200.03	188.16	-5.93

Poultry and paddy rice commodity prices (N) in North CentralZone

States	Commodity Prices (N) in Northcentral Zone/(Kg)																	
	Chicken						Egg						Paddy Rice					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Benue	na	na	na	na	na	na	na	na	na	na	na	na	na	389.00	na	562.00	441.70	-21.41
Kogi	2200.00	2000.00	-9.09	2500.00	na	#VALUE!	1500.00	2105.26	40.35	2119.21	1538.46	-27.40	na	na	na	na	na	na
Nassarawa	na	na	#VALUE!	na	na	#VALUE!	na	na	#VALUE!	na	na	#VALUE!	192.00	153.10	-20.26	192.30	164.06	-14.69
FCT	1825.00	1825.00	0.00	2500.00	1950.00	-22.00	760.00	800.00	5.26	788.00	850.00	7.87	na	na	na	na	na	na
Plateau	936.00	885.76	-5.37	856.65	809.52	-5.50	na	na	na	na	na	na	na	na	na	na	na	na
Niger	1094.25	1122.44	2.58	1124.85	1230.30	9.37	na	na	na	na	na	na	146.84	150.29	2.35	175.06	249.14	42.32
Kwara	1400.00	1400.00	0.00	1400.00	1400.00	0.00	1000.00	1000.00	0.00	1100.00	1000.00	-9.09	250.00	300.00	20.00	281.55	200.00	-28.96
Z. Mean	1578.71	1541.87	-2.33	1733.08	1481.56	-14.51	1319.25	1480.82	12.25	1506.05	1351.62	-10.25	651.46	602.08	-7.58	645.58	614.58	-4.80

Poultry and paddy rice commodity prices (N) in South West Zone

States	Commodity Prices (N) in Southwest Zone/(Kg)																	
	Chicken						Egg						Paddy Rice					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Osun	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na
Oyo	900.00	1050.00	16.67	800.00	1350.00	68.75	809.84	850.00	4.96	543.00	303.34	-44.14	341.77	270.58	-20.83	352.94	264.70	-25.00
Ekiti	1000.00	1000.00	0.00	1000.00	120.00	-88.00	800.00	900.00	12.50	900.00	1000.00	11.11	400.00	550.00	37.50	650.00	750.00	15.38
Ondo	2000.00	920.00	-54.00	1800.00	1200.00	-33.33	1000.00	655.00	-34.50	950.00	420.00	-55.79	na	343.50	na	na	na	na
Ogun	na	na	na	na	na	na	na	na	na	na	na	na	na	300.00	0.00	200.00	200.00	0.00
Lagos	900.00	1000.00	11.11	1000.00	850.00	-15.00	850.00	900.00	5.88	900.00	900.00	0.00	na	na	na	na	na	na
Z. Mean	1200.00	992.50	-17.29	1150.00	880.00	-23.48	864.96	826.25	-4.48	823.25	655.84	-20.34	347.26	366.02	5.40	400.98	404.90	0.98

Poultry and paddy rice commodity prices (N) in South East Zone

States	Commodity Prices (N) in Southeast Zone/(Kg)																	
	Chicken						Egg						Paddy Rice					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Enugu	1851.00	1800.00	-2.76	1896.00	1780.00	-6.12	na	na	na	na	na	na	na	na	na	na	na	na
Ebonyi	1200.00	132.50	-88.96	1700.00	1800.00	5.88	1200.00	1400.00	16.67	1400.00	1450.00	3.57	298.00	303.50	1.85	290.00	303.50	4.66
Abia	1500.00	1200.00	-20.00	1650.00	1200.00	-27.27	900.00	1300.00	44.44	950.00	1300.00	36.84	na	na	na	na	na	na
Imo	1800.00	1850.00	2.78	1600.00	1860.00	16.25	700.00	850.00	21.43	800.00	855.00	6.88	na	na	na	na	na	na
Anambra	na	na	Na	na	na	na	na	na	na	na	na	na!	na	na	na	na	na	na
Z. Mean	1587.75	1245.63	-21.55	1711.50	1660.00	-3.01	933.33	1183.33	26.79	1050.00	1201.67	14.44	298.00	303.50	1.85	290.00	303.50	4.66

Poultry and paddy rice commodity prices (N) in South South Zone

States	Commodity Prices (N) in Southsouth Zone/(Kg)																	
	Chicken						Egg						Paddy Rice					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Akwa Ibom	na	na	#VALUE!	na	na	#VALUE!	na	na	#VALUE!	na	na	na	na	na	na	na	na	na
Bayelsa	700.00	1040.00	48.57	1112.00	1020.00	-8.27	400.00	400.00	0.00	425.00	400.00	-5.88	na	na	na	na	na	na
Cross River	1744.70	1747.90	0.18	1748.30	1551.38	-11.26	1100.00	1100.00	0.00	1200.00	1100.00	-8.33	na	na	na	na	na	na
Delta	2100.00	2550.00	21.43	2100.00	2550.00	21.43	1000.00	1000.00	0.00	1000.00	1000.00	0.00	na	na	na	na	na	na
Edo	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na
Rivers	2000.00	1500.00	-25.00	2600.00	2000.00	-23.08	950.00	1000.00	5.26	1050.00	1200.00	14.29	na	na	na	na	na	na
Z. Mean	1636.18	1709.48	4.48	1890.08	1780.35	-5.81	862.50	875.00	1.45	918.75	925.00	0.68	na	na	na	na	na	na

Benniseed, Fresh Tomato and palm oil commodity prices (N) in North East Zone

States	Commodity Prices (N) in Northeast Zone/(Kg)																	
	Benniseed						Oil Palm						Tomato Fresh					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Borno	270	300	11.11	260	350	34.62	220	250	13.64	253	400	58.10	na	na	na	na	na	na
Yobe	800	850	6.25	810	865	6.79	550	500	-9.09	555	576	3.78	700	655	-6.43	660	780	18.18
Bauchi	349.70	396.72	13.45	400.00	425.00	6.25	400.00	550.00	37.50	400.00	520.00	30.00	130.00	165.16	27.05	152.52	175.60	15.13
Gombe	116.66	239.10	104.95	291.66	384.23	31.74	2800.00	2500.00	-10.71	2800.00	2400.00	-14.29	100.00	126.00	26.00	160.00	163.10	1.94
Adamawa	135.00	150.00	11.11	250.00	300.00	20.00	na	na	Na	na	na	na	120.00	160.00	33.33	140.00	135.00	-3.57
Taraba	270.00	500.00	85.19	300.00	335.00	11.67	na	na	Na	na	na	na	na	na	na	na	na	na
Z. Mean	323.56	405.97	25.47	385.28	443.21	15.04	992.50	950.00	-4.28	1002.00	974.00	-2.79	262.50	276.54	5.35	278.13	313.43	12.69

Benniseed, Fresh Tomato and palm oil commodity prices (N) in North West Zone

States	Commodity Prices (N) in Northwest Zone/(Kg)																	
	Benniseed						Palm Oil						Tomato Fresh					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Jigawa	272.00	265.00	-2.57	273.00	295.00	8.06	250.00	535.00	114.00	440.00	500.00	13.64	50.00	200.00	300.00	260.00	500.00	92.31
Zamfara	na	na	na	na	na	na	857.00	389.00	-54.61	400.00	380.00	-5.00	300.00	250.00	-16.67	1000.00	700.00	-30.00
Kaduna	350.00	450.00	28.57	330.00	442.00	33.94	600.00	750.00	25.00	700.00	750.00	7.14	500.00	1000.00	100.00	600.00	1550.00	158.33
Katsina	250.00	340.00	36.00	212.50	280.00	31.76	450.00	450.00	0.00	500.00	500.00	0.00	80.00	80.00	0.00	100.00	120.00	20.00
Kebbi	230.00	250.00	8.70	300.00	300.00	0.00	500.00	350.00	-30.00	450.00	350.00	-22.22	120.00	150.00	25.00	150.00	200.00	33.33
Sokoto	na	na	na	na	na	na	703.12	555.70	-20.97	530.80	474.50	-10.61	143.93	189.91	31.95	98.33	122.11	24.18
Kano	na	na	na	na	na	na	na	na	Na	na	na	na	na	na	na	na	na	na
Z. Mean	275.50	326.25	18.42	278.88	329.25	18.06	560.02	504.95	-9.83	503.47	492.42	-2.19	198.99	311.65	56.62	368.06	532.02	44.55

Benniseed, Fresh Tomato and palm oil commodity prices (N) in North Central Zone

States	Commodity Prices (N) in Northcentral Zone/(Kg)																	
	Benniseed						Oil Palm						Tomato Fresh					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Benue	na	407.00	na	na	672.51	na!	409.00	376.12	-8.04	451.00	442.00	-2.00	329.00	451.00	37.08	107.00	312.00	191.59
Kogi	307 .69	416.67	na	300.00	461.54	53.85	na	na	Na	na	na	na	133.33	187.50	40.63	375	157.90	na
Nassarawa	467.66	241.70	-48.32	437.04	670.15	53.34	608.50	257.12	-57.75	265.38	395.62	49.08	242.45	153.60	-36.65	131.76	130.50	-0.96
FCT	250.00	281.25	12.50	315.88	368.75	16.74	na	na	Na	na	na	na	83.33	275.00	230.01	130.00	375.00	188.46
Plateau	na	na	na	na	na	na	na	na	Na	na	na	na	109.49	167.35	52.85	210.19	256.20	21.89
Niger	299.00	311.26	4.10	300.00	303.57	1.19	800.21	501.74	-37.30	440.55	425.14	-3.50	155.12	371.17	139.28	184.06	181.87	-1.19
Kwara	na	na	na	na	na	na	1600.00	800.00	-50.00	800.00	270.00	-66.25	85.70	166.66	94.47	166.67	194.40	16.64
Z. Mean	758.42	612.65	-19.22	673.98	749.09	11.14	1086.94	790.60	-27.26	794.79	710.15	-10.65	394.43	473.79	20.12	420.95	453.23	7.67

Benniseed, Fresh Tomato and palm oil commodity prices (N) in South West Zone

States	Commodity Prices (N) in Southwest Zone/(Kg)																	
	Benniseed						Oil Palm						Tomato Fresh					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Osun	na	na	na	na	na	na	na	na	Na	na	na	na	na	na	na	na	na	na
Oyo	na	na	na	na	na	na	1000.00	375.00	-62.50	500.00	437.50	-12.50	125.00	121.95	-2.44	161.29	163.93	1.64
Ekiti	na	na	na	na	na	na	400.00	500.00	25.00	500.00	650.00	30.00	650.00	700.00	7.69	600.00	750.00	25.00
Ondo	na	na	na	na	na	na	700.00	na	Na	550.00	360.00	-34.55	150.00	207.27	38.18	150.00	na	na
Ogun	na	na	na	na	na	na	804.00	750.00	-6.72	1368.00	na	na	345.00	375.00	8.70	644.00	644.00	0.00
Lagos	na	na	na	na	na	na	400.00	500.67	25.17	470.00	450.62	-4.12	na	na	na	na	na	na
Z. Mean	na	na	na	na	na	na	660.80	531.42	-19.58	677.60	474.53	-29.97	317.50	351.06	10.57	388.82	519.31	33.56

Benniseed, Fresh Tomato and palm oil commodity prices (N) in South East Zone

States	Commodity Prices (N) in Southeast Zone/(Kg)																	
	Benniseed						Oil Palm						Tomato Fresh					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Enugu	na	na	na	na	na	na	na	na	Na	na	na	na	360.00	350.00	-2.78	403.00	285.00	-29.28
Ebonyi	1000.00	1300.00	30.00	1400.00	1500.00	7.14	7200.00	9300.00	29.17	7500.00	9300.00	24.00	na	na	na	na	na	na
Abia	na	na	na	na	na	na	201.00	467.00	132.34	500.00	480.00	-4.00	475.00	475.00	0.00	355.00	638.88	79.97
Imo	na	na	na	na	na	na	na	na	Na	na	na	na	300.00	360.00	20.00	350.00	365.00	4.29
Anambra	na	na	na	na	na	na	na	na	Na	na	na	na	340.00	460.00	35.29	390.00	500.00	28.21
Z. Mean	1000.00	1300.00	30.00	1400.00	1500.00	7.14	3700.50	4883.50	31.97	4000.00	4890.00	22.25	368.75	411.25	11.53	374.50	447.22	19.42

Benniseed, Fresh Tomato and palm oil commodity prices (N) in South South Zone

States	Commodity Prices (N) in Southsouth Zone/(Kg)																	
	Benniseed						Oil Palm						Tomato Fresh					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change	2017	2018	% Change
Akwa Ibom	na	na	na	na	na	na	na	na	Na	na	na	na	na	na	na	na	na	na
Bayelsa	na	na	na	na	na	na	812.50	558.00	-31.32	560.00	499.00	-10.89	306.00	300.00	-1.96	300.00	310.00	3.33
Cross River	na	na	na	na	na	na	na	na	Na	na	na	na	875.70	706.80	-19.29	875.70	1100.00	25.61
Delta	1750.00	1750.00	0.00	1750.00	1750.00	0.00	550.00	475.00	-13.64	550.00	475.00	-13.64	625.00	825.00	32.00	775.00	940.00	21.29
Edo	na	na	na	na	na	na	na	na	Na	na	na	na	na	na	na	na	na	na
Rivers	na	na	na	na	na	na	na	na	Na	na	na	na	300.00	200.00	-33.33	600.00	250.00	-58.33
Z. Mean	1750.00	1750.00	0.00	1750.00	1750.00	0.00	681.25	516.50	-24.18	555.00	487.00	-12.25	526.68	507.95	-3.56	637.68	650.00	1.93

9.0 FARMERS' ASSESSMENT OF CROPPING PERFORMANCE

This part of the report presents the results of the 2018 farmers' assessment of cropping performance for Nigeria based on the statistical analysis performed. The results are presented in different forms including brief summaries, charts and tables in order to make it easier for users to understand.

An average of 2ha of land was cultivated by the farmers in 2018 resulting in an increase of 0.25% to the average land size cultivated in 2017. Most farmers reported that they increased their land size in the growing season. More fallow lands were open up for farming in 2018. Most farmers (52%) were involved in growing crops only, (3%) farmers reared livestock only, (0.5%) farmers kept poultry only and (0.4%) farmers were involved in fishing only. In all, (97%) were into crop production irrespective of other agricultural production. Some farmers, (35%) combine crop production with rearing of livestock while (20%) farmers were engaged in crop production as well as poultry keeping. The percentage use of improved seed was only reported by fewer farmers, since most farmers go for own saved seed from previous harvest. Majority (67%) of farmers sampled used inorganic fertilizer. Very few farmers (1%) reported to have used Single Super Phosphate (SSP) fertilizer. Fertilizer application in Nigeria by farmers is not impressive due to paucity of fund and the believe by some that their lands are fertile. 50% of the farmers also reported that they use organic fertilizer (animal manure). The application of organic fertilizers was also minimal. The organic fertilizer used among farmers were mostly cow dung, small ruminant waste (31%) and poultry waste (19%). About 10% of farmers got Government input in 2018 as compared to 2017 where only 4% of farmers got input. Fertilizer received by the Government were purchased at the cost of N5500 per 50kg bag. About 89% of farmers that received Government fertilizer reported that the quality of fertilizer was high. Some farmers (47%) reported that the fertilizer was distributed early while 53% of farmers reported that the distribution was late. Farmers' access to Government Input are shown in Figure 9.8 and 9.9. Only 2% of farmers reported to have hired Government tractor in the current season. Twenty percent (20%) were able to hire tractor from private owners. No farmer reported to have received credit from Government in 2018.

However, 3% of the farmers had access to credit which they got from cooperatives. About 52% of the sampled farmers purchased seeds in the 2018 cropping season. Fewer farmers (12%) purchased improved seed varieties. The quantities of seeds purchased varied between 10kg and 50kg. The average cost of purchased seeds was about N500. Seeds were mainly obtained from the market by 40% of the farmers while 12% of farmers purchased from seed companies and agro-dealers. Other sources were from cofarmers (7%) and farmers' own stock (41%). Farmers' sources of seed are shown in Figure 9.10. The nonseed inputs purchased in the current season included NPK, Urea, pesticides (herbicides and insecticides) and manure. Fewer farmers used non-seed inputs, suggesting the need to encourage farmers to use these inputs to enhance their productivity.

Figure 9.1: Mean Household Size

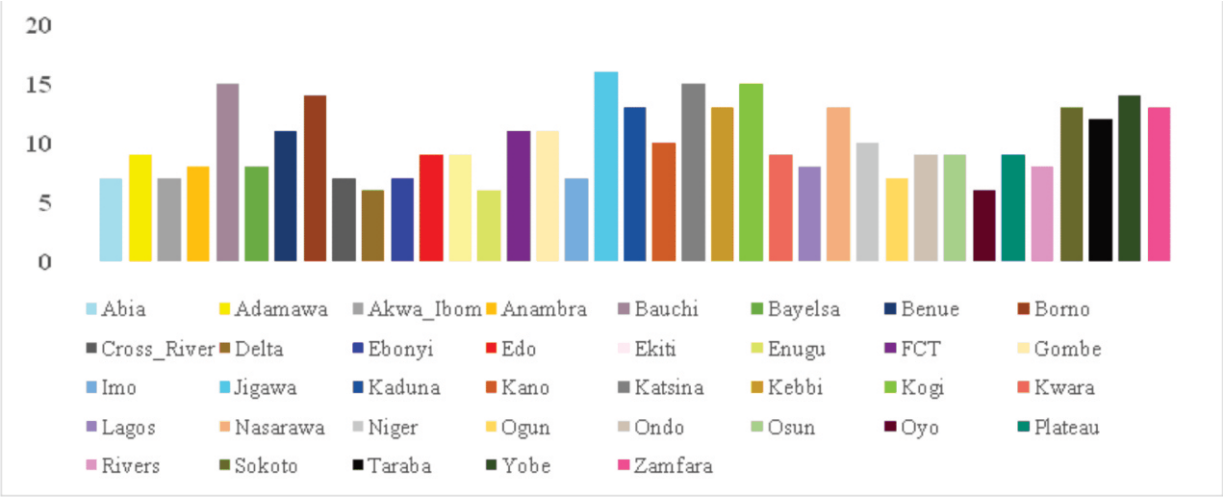


Figure 9.2: Distribution of Farmers by Major Enterprises

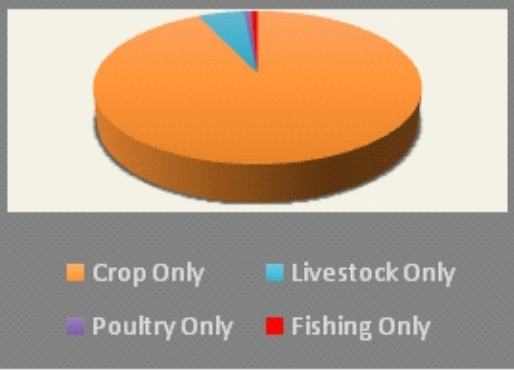


Figure 9.3: Distribution of Farmers by Mixed Enterprises

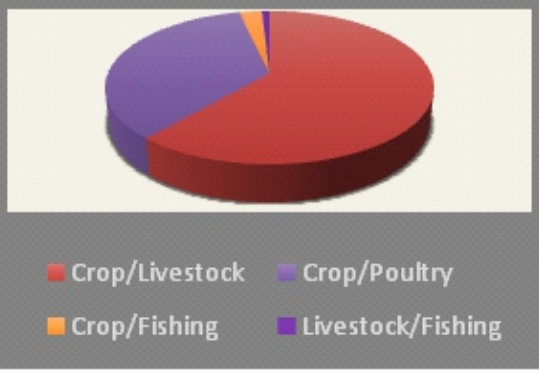


Figure 9.4: Farmers by Livestock Type

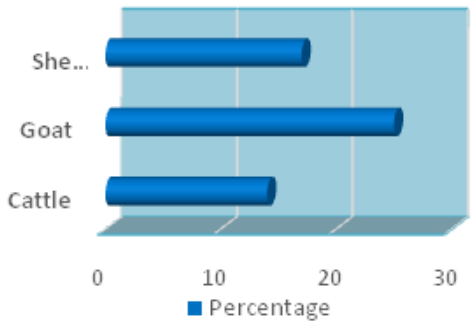


Figure 9.5: Distribution of Farmers in Market Enterprises

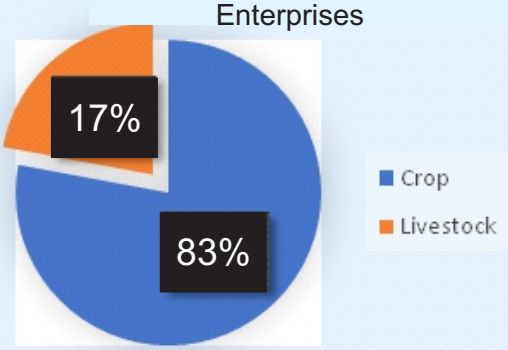


Figure 9.6: Proportion of Land Area Planted for Crop

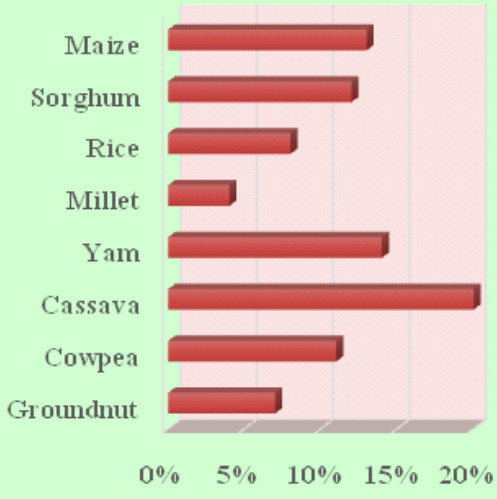


Figure 9.7: Cereal Production and Yield per Hectare

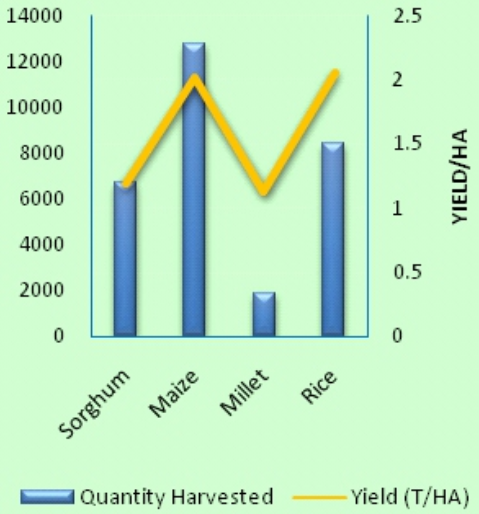


Figure 9.8: Access to Government Input by Farmers in 2018

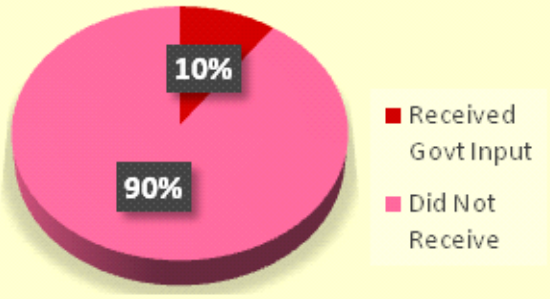


Figure 9.9: Proportion of Farmers that Received Govt. Input in 2017 and 2018

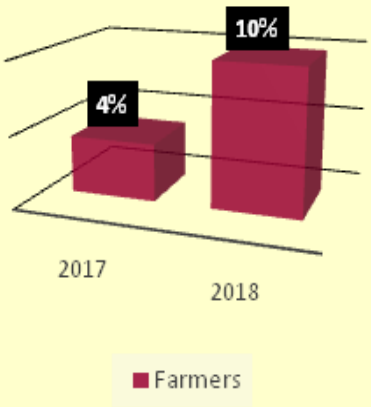


Figure 9.10: Sources of Seed by Farmers

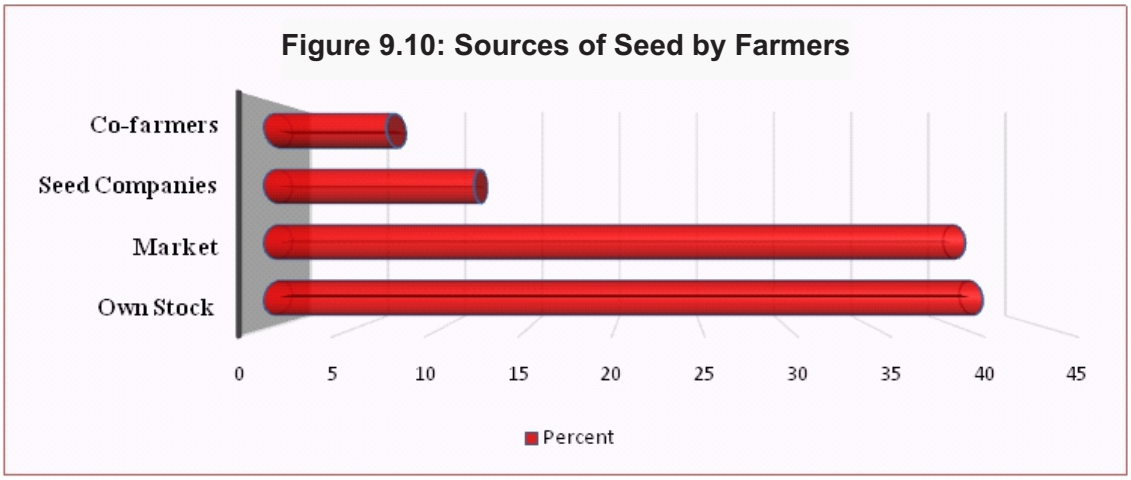


Figure 9.11: Expected Output for 2018 by Farmers

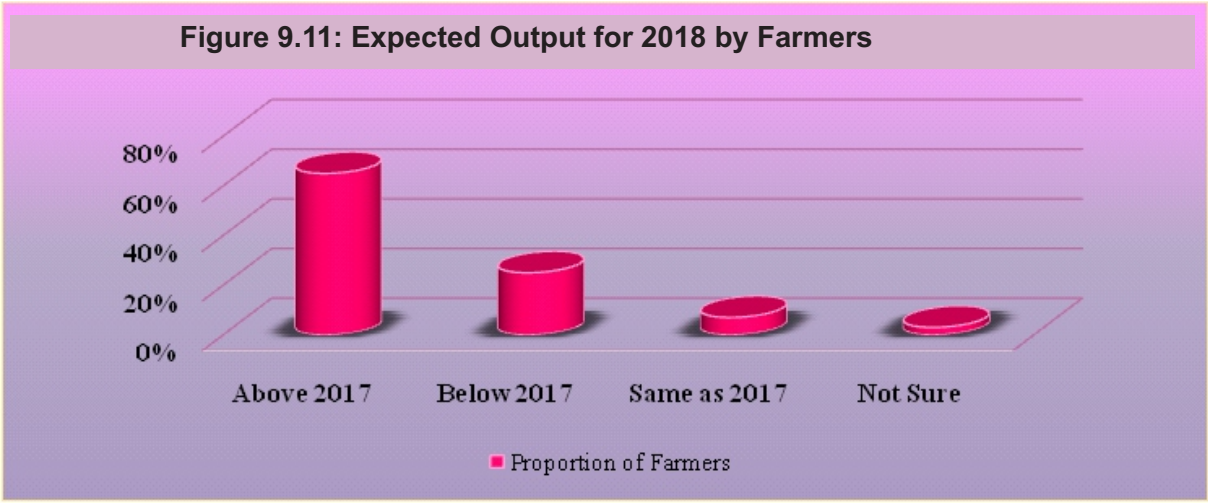


Figure 9.12: Sources of Extension Services

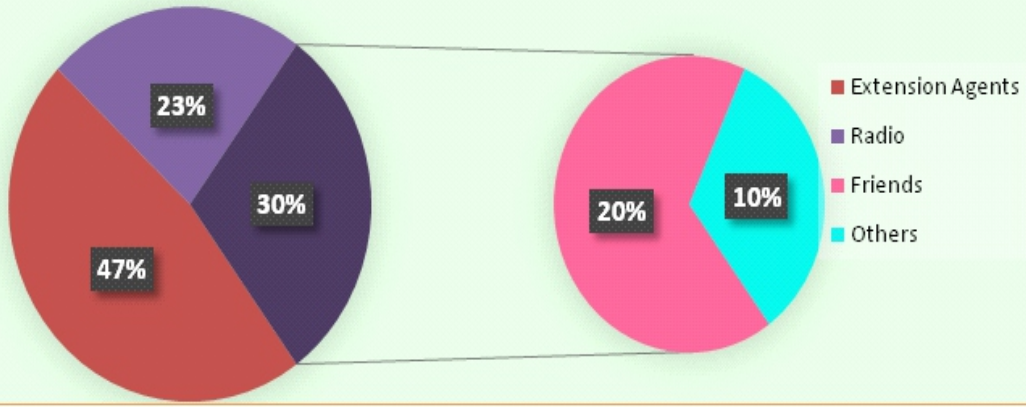


Figure 9.13: Proportion of Farmers who Reported Constraints to Media Use

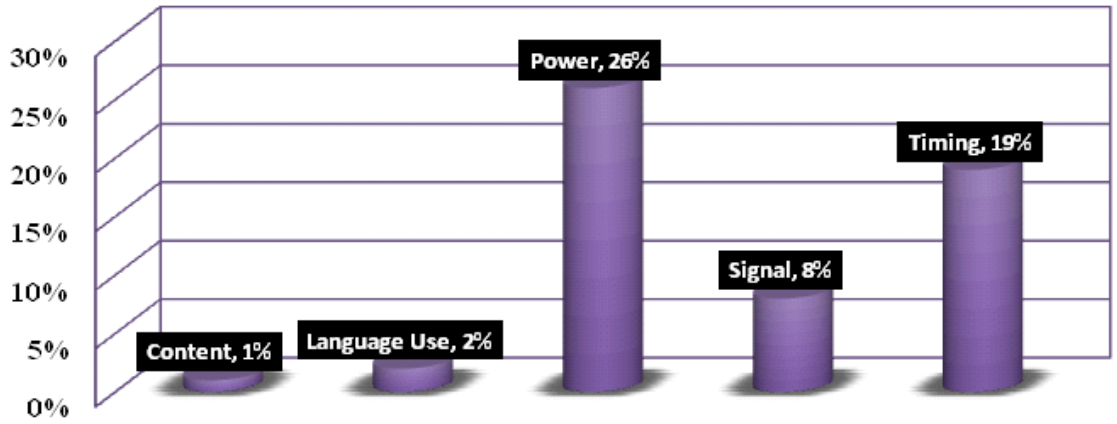
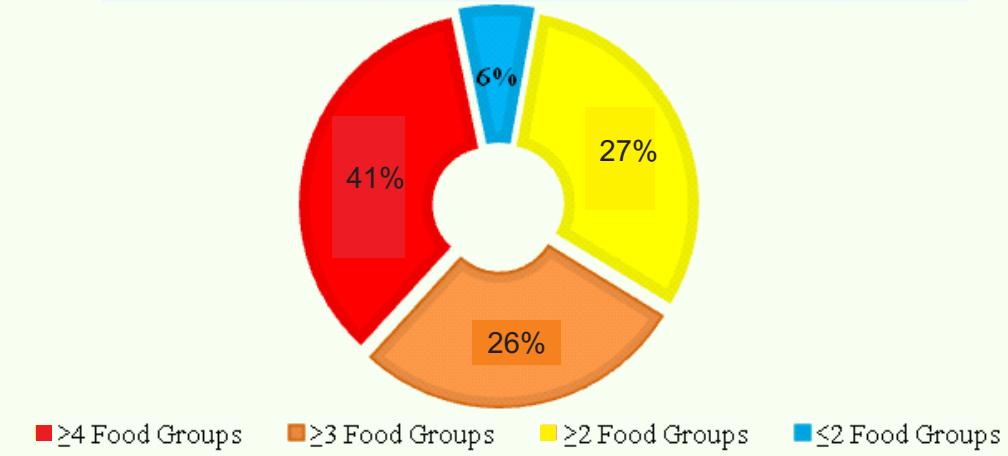


Figure 9.14: Groups Consumed by Households



10. 0. PRODUCTION ESTIMATES FOR MAJOR CROPS

Cultivated land area, production estimates and yield for major crops across the country are presented in this section

10.1. Cereals

The cereal crops include rice, maize, sorghum, and millets among others. They are mostly rich in carbonhydrates and hence serve as energy foods to most Nigerians. They are regarded as staple foods in sub-Saharan countries due to the frequency of their consumption in every household. They are processed into grains and taken either cooked or further processed into other forms such as flour.

Rice

Rice is one of the major cereal crops that supply dietary energy to humans. It is a leading staple food in Nigeria with its consumption increasing at a higher rate than its production. It is grown in almost all the thirty-six states and federal capital territory. Data from the 2018 agricultural performance survey indicate that an estimated land area of about 4,065.49 million hectares was devoted to rice cultivation across the country compared with 3,764.96 million hectares in 2017. This represents an increase of about 7.98%. The increase as reported by most farmers in all the state is as a result of the government efforts in improving domestic production. For the output on the other hand, rice forecast for this year stands at 8,403.36million metric tonnes, reflecting 7.25% against 2017 forecast of 7,835.12 million tonnes with an average yield of 2.07 tonnes per hectare in 2018 (Table 10.1). All the states reported an increase in rice output with exception of Yobe that recorded a decrease in rice output for the year 2018.

Sorghum

Both land area and production in 2018 increased compared with 2017. Total land area dedicated for sorghum increased to 5,848,460 hectares in 2018 as compared with 5,636,180 in 2017 which represent a 3.77% increase. The production forecast for 2018 increased by 4.50% from 6,431,670 MT in 2017 to 6,721,180 MT in 2018. The highest increase recorded for sorghum was in Bauchi with up to 20.63% increase in production and 19.90% increase in land area from 2017 to 2018. Some states recorded a decrease in either land area, production or both.The highest decrease was recorded in Adamawa with 7.72% in land area and 4.11% in production output. Other states that

Table 10.1: Estimates of Cultivated Land Area, Production Output and Yield Forecast for Rice								
State	Production ("000" MT)			Land ("000" Ha)			Yield(tons/Ha)	
	2017	2018	% Change	2017	2018	% Change	2017	2018
Borno	181.44	186.63	2.86	113.03	115.15	1.88	1.61	1.62
Yobe	169.00	156.34	-7.49	102.58	100.25	-2.27	1.65	1.56
Bauchi	216.16	246.79	14.17	122.08	136.56	11.86	1.77	1.81
Gombe	174.08	208.89	20.00	102.26	124.75	22.00	1.70	1.67
Adamawa	278.58	280.89	0.83	156.83	162.44	3.58	1.78	1.73
Taraba	366.12	417.34	13.99	173.82	189.46	9.00	2.11	2.20
Jigawa	212.08	245.98	15.99	99.66	108.63	9.00	2.13	2.26
Katsina	199.75	225.05	12.66	107.68	121.32	12.67	1.86	1.85
Sokoto	162.31	164.78	1.52	79.9	81.30	1.75	2.03	2.03
Kebbi	411.49	412.63	0.28	216.86	218.22	0.63	1.90	1.89
Zamfara	250.14	251.94	0.72	119.00	121.68	2.25	2.10	2.07
Kano	418.48	422.79	1.03	124.70	125.10	0.32	3.36	3.38
Kaduna	338.81	348.97	3.00	157.59	159.15	0.99	2.15	2.19
Plateau	245.23	252.61	3.01	129.39	131.32	1.49	1.90	1.92
Nassarawa	410.82	413.61	0.68	178.40	180.81	1.35	2.30	2.29
FCT	408.11	417.24	2.24	195.86	200.60	2.42	2.08	2.08
Niger	545.70	616.64	13.00	229.08	262.30	14.50	2.38	2.35
Kwara	408.25	438.87	7.50	187.28	201.33	7.50	2.18	2.18
Kogi	512.61	563.87	10.00	235.52	274.90	16.72	2.18	2.05
Benue	486.62	558.62	14.80	227.73	277.83	22.00	2.14	2.01
Osun	92.54	101.89	10.10	41.94	44.88	7.01	2.21	2.27
Oyo	99.58	102.64	3.08	54.52	56.26	3.19	1.83	1.82
Ekiti	134.72	135.08	0.27	72.87	75.03	2.96	1.85	1.80
Ondo	117.35	119.11	1.50	34.60	36.70	6.07	3.39	3.25
Ogun	68.83	77.02	11.90	44.71	51.85	15.97	1.54	1.49
Lagos	63.52	71.47	12.52	36.18	38.18	5.53	1.76	1.87
Anambra	90.63	93.32	2.97	32.60	33.80	3.68	2.78	2.76
Enugu	84.71	88.95	5.00	39.64	41.62	5.00	2.14	2.14
Ebonyi	109.64	126.70	15.56	49.80	59.76	20.00	2.20	2.12
Abia	50.31	56.70	12.70	31.89	37.33	17.06	1.58	1.52
Imo	63.07	74.74	18.50	30.80	34.84	13.12	2.05	2.15
Akwa Ibom	19.19	24.63	28.37	8.30	9.31	12.17	2.31	2.65
Bayelsa	93.39	95.49	2.25	44.48	50.93	14.50	2.10	1.87
C/Rivers	116.33	145.05	24.69	60.16	63.17	5.00	1.93	2.30
Delta	44.23	45.95	3.89	24.38	26.28	7.78	1.81	1.75
Edo	124.80	137.28	10.00	61.32	67.45	10.00	2.04	2.04
Rivers	66.50	76.84	15.56	37.52	45.02	20.00	1.77	1.71
National	7835.12	8403.36	7.25	3764.96	4065.49	7.98	2.07	2.07

Table 10.2: Estimates of Cultivated Land Area, Production Output and Yield Forecast for Sorghum								
State	Production ("000" MT)			Land ("000" Ha)			Yield(tons/Ha)	
	2017	2018	% Change	2017	2018	% Change	2017	2018
Borno	327.22	333.25	1.84	334.54	336.01	0.44	0.98	0.99
Yobe	266.60	267.00	0.15	251.60	251.66	0.03	1.06	1.06
Bauchi	383.88	463.08	20.63	366.77	439.75	19.90	1.05	1.05
Gombe	314.87	330.61	5.00	325.91	342.21	5.00	0.97	0.97
Adamawa	296.20	284.04	-4.11	276.50	255.16	-7.72	1.07	1.11
Taraba	325.66	342.52	5.18	307.85	313.96	1.99	1.06	1.09
Jigawa	353.92	355.62	0.48	291.72	291.72	0.00	1.21	1.22
Katsina	372.16	389.23	4.59	313.46	327.84	4.59	1.19	1.19
Sokoto	372.20	372.67	0.13	273.90	273.79	-0.04	1.36	1.36
Kebbi	398.86	402.41	0.89	325.87	328.27	0.74	1.22	1.23
Zamfara	406.40	408.50	0.52	435.70	435.76	0.01	0.93	0.94
Kano	583.60	585.16	0.27	576.50	577.17	0.12	1.01	1.01
Kaduna	419.89	432.49	3.00	408.51	412.59	1.00	1.03	1.05
Plateau	294.56	303.41	3.00	196.04	198.96	1.49	1.50	1.52
Nassarawa	159.90	161.21	0.82	93.10	92.20	-0.97	1.72	1.75
FCT	127.70	128.51	0.63	102.46	104.86	2.34	1.25	1.23
Niger	531.36	624.08	17.45	382.38	419.50	9.71	1.39	1.49
Kwara	134.28	143.01	6.50	90.25	96.11	6.49	1.49	1.49
Kogi	126.56	127.16	0.48	95.89	95.89	0.00	1.32	1.33
Benue	164.41	194.80	18.48	126.40	193.92	53.42	1.30	1.00
Oyo	58.00	58.80	1.38	48.71	48.93	0.46	1.19	1.20
Enugu	13.44	13.63	1.38	12.12	12.18	0.46	1.11	1.12
National	**6431.67**	**6721.18**	**4.50**	**5636.18**	**5848.46**	**3.77**	**1.20**	**1.20**

recorded decrease in land area include Sokoto (-0.04) and Nassarawa (-0.97). Average yield was 1.2 tons/ha in 2018 (Table 10.2).

Maize

Maize is the second most important cereal crop in Nigeria (after rice) and virtually produced across all the states of the country. The total estimated land area for the crop in 2018 was 6,021.20 million hectares as compared with 5773.62 million hectares in 2017, thus indicating 4.29% increase. The production also increased to 12,759.99 million MT in 2018 compared with12004.65 million MT in 2017, with percentage increase of 6.29%. An average yield of 2.02 tons/ha was recorded in 2018, which was a slight increase above 2017 (Table 10.3).

Millet

Millet is also an important cereal crop mainly grown in the Northern part of Nigeria. The crop thrives well in locations where the rainfall does not last long enough to deter its growth. In 2018, a total of

1,734,300 Ha was devoted for the crop compared to 1, 676,630 Ha in 2017. In terms of production, an increase of 5.35% was realised from 1,783, 970 MT in 2017 to 1,879,350 MT in 2018. Generally, there was an increase in production for all states except Zamfara and Kogi states which recorded decrease of -0.03 and -1.31 respectively. This could probably be as a result of the crisis that engulfed Zamfara state which made it difficult to cultivate and cater for the crop and the cases of flood which was experienced in part of Kogi state. The national average yield recorded for 2018 was about 1.14 tons/ha and 1.12 tons/ha in2017 (Table 10.4).

10.2. Legumes

The legumes are very important nitrogen fixing crops that adds to soil fertility. They are grown under mixed cropping with other crops most especially the cereals. The crops include Cowpea, Soybean, and Groundnut.

Groundnut

Groundnut is an important legume crop grown mostly in the Northern part of the country. Total land area dedicated for the crop in 2018 significantly increased to 3,562, 650 Ha as against 3, 398, 100 Ha in 2017 (an increase of 4.84%). Similarly, production output increased to 4,421,540 MT in 2018 compared with 4,247,760 MT in 2017, representing 4.09% increase. Output from the Groundnut producing states considerably increased - Niger (18.17%), Ogun (18.11%), and Katsina (14.83%) recorded the highest increase while Kaduna (-5.05%), Yobe (-2.72%) and Sokoto (-1.41%) had decrease in production output. Generally, the average national yield is 1.27 tons/ha in 2018 (Table 10.5).

Table 10.3: Estimates of Cultivated Land Area, Production Output and Yield Forecast for Maize								
State	Production ("000" MT)			Land ("000" Ha)			Yield(tons/Ha)	
	2017	2018	% Change	2017	2018	% Change	2017	2018
Borno	613.55	627.20	2.23	367.75	368.54	0.21	1.67	1.70
Yobe	295.20	297.11	0.65	145.70	146.13	0.30	2.03	2.03
Bauchi	515.26	582.50	13.05	278.79	301.75	8.24	1.85	1.93
Gombe	596.04	715.19	19.99	313.04	381.91	22.00	1.90	1.87
Adamawa	412.10	413.87	0.43	189.90	189.91	0.01	2.17	2.18
Taraba	538.70	608.73	13.00	259.19	282.52	9.00	2.08	2.15
Jigawa	324.64	330.54	1.82	177.92	177.92	0.00	1.82	1.86
Katsina	336.03	408.04	21.43	175.44	187.97	7.14	1.92	2.17
Sokoto	272.50	275.50	1.10	101.70	101.79	0.09	2.68	2.71
Kebbi	335.54	357.48	6.54	172.41	173.86	0.84	1.95	2.06
Zamfara	265.80	268.38	0.97	189.60	189.88	0.15	1.40	1.41
Kano	351.50	353.14	0.47	126.50	128.58	1.64	2.78	2.75
Kaduna	910.50	937.82	3.00	356.61	360.18	1.00	2.55	2.60
Plateau	641.67	660.92	3.00	258.32	262.19	1.50	2.48	2.52
Nassarawa	306.60	308.86	0.74	105.20	105.65	0.42	2.91	2.92
FCT	447.96	449.23	0.28	196.47	197.26	0.40	2.28	2.28
Niger	677.78	745.11	9.93	272.45	284.31	4.35	2.49	2.62
Kwara	310.69	333.99	7.50	151.53	162.89	7.50	2.05	2.05
Kogi	395.99	399.45	0.87	164.13	165.89	1.07	2.41	2.41
Benue	342.76	404.46	18.00	136.94	153.37	12.00	2.50	2.64
Osun	347.02	351.32	1.24	176.10	172.53	-2.03	1.97	2.04
Oyo	269.06	317.73	18.09	134.63	153.48	14.00	2.00	2.07
Ekiti	269.81	284.18	5.32	150.53	154.49	2.63	1.79	1.84
Ondo	384.50	387.33	0.73	154.00	154.17	0.11	2.50	2.51
Ogun	281.33	293.37	4.28	137.39	140.30	2.12	2.05	2.09
Lagos	241.14	263.81	9.40	140.22	155.35	10.79	1.72	1.70
Anambra	88.18	102.35	16.07	50.16	56.68	13.00	1.76	1.81
Enugu	157.33	171.81	9.20	86.21	90.52	5.00	1.82	1.90
Ebonyi	129.74	153.53	18.33	67.25	74.65	11.00	1.93	2.06
Abia	140.35	115.39	-17.79	75.46	74.09	-1.82	1.86	1.56
Imo	124.30	127.03	2.20	45.40	47.68	5.02	2.74	2.66
Akwa Ibom	83.80	85.38	1.89	77.00	78.03	1.34	1.09	1.09
Bayelsa	79.15	80.50	1.71	45.45	46.91	3.21	1.74	1.72
C/River	102.45	103.09	0.63	56.19	57.07	1.57	1.82	1.81
Delta	154.50	154.51	0.01	96.09	86.60	-9.88	1.61	1.78
Edo	151.54	166.91	10.15	90.12	99.13	10.00	1.68	1.68
Rivers	109.64	124.26	13.33	51.83	57.01	10.00	2.12	2.18
National	**12004.65**	**12759.99**	**6.29**	**5773.62**	**6021.20**	**4.29**	**2.00**	**2.02**

Table 10.4: Estimates of Cultivated Land Area, Production Output and Yield Forecast for Millet								
State	Production ("000" MT)			Land ("000" Ha)			Yield(tons/Ha)	
	2017	2018	% Change	2017	2018	% Change	2017	2018
Borno	75.01	75.65	0.86	95.66	95.81	0.15	0.78	0.79
Yobe	238.50	246.66	3.42	203.30	207.31	1.97	1.17	1.19
Bauchi	71.92	77.17	7.30	82.39	84.77	2.88	0.87	0.91
Gombe	105.62	113.01	7.00	111.12	116.67	5.00	0.95	0.97
Adamawa	162.70	166.20	2.15	133.90	134.81	0.68	1.22	1.23
Taraba	93.78	95.19	1.50	104.29	106.47	2.09	0.90	0.89
Jigawa	71.15	71.57	0.59	91.74	92.40	0.72	0.78	0.77
Katsina	124.68	152.54	22.35	139.88	148.26	5.99	0.89	1.03
Sokoto	186.30	186.96	0.35	81.20	81.29	0.10	2.29	2.30
Kebbi	74.29	74.53	0.33	79.90	80.11	0.26	0.93	0.93
Zamfara	81.90	81.87	-0.03	33.00	33.72	2.18	2.48	2.43
Kano	87.60	88.36	0.87	48.00	49.00	2.08	1.83	1.80
Kaduna	46.89	48.30	3.00	61.76	62.38	1.00	0.76	0.77
Plateau	67.42	69.45	3.00	76.96	78.12	1.50	0.88	0.89
Nassarawa	28.30	29.23	3.29	20.80	21.14	1.62	1.36	1.38
FCT	53.28	54.63	2.54	58.76	57.73	-1.75	0.91	0.95
Niger	84.09	103.81	23.45	94.92	113.56	19.64	0.89	0.91
Kwara	25.53	27.19	6.48	27.79	29.60	6.53	0.92	0.92
Kogi	41.97	41.42	-1.31	47.80	45.84	-4.11	0.88	0.90
Benue	63.04	75.60	19.93	83.46	95.34	14.23	0.76	0.79
National	**1783.97**	**1879.35**	**5.35**	**1676.63**	**1734.30**	**3.44**	**1.12**	**1.14**

Table 10.5: Estimates of Cultivated Land Area, Production Output and Yield Forecast for Groundnut								
State	Production ("000" MT)			Land ("000" Ha)			Yield(tons/Ha)	
	2017	2018	% Change	2017	2018	% Change	2017	2018
Borno	187.36	190.06	1.44	160.13	161.16	0.64	1.17	1.18
Yobe	66.60	64.79	-2.72	45.70	46.01	0.67	1.46	1.41
Bauchi	511.78	528.78	3.32	394.34	406.17	3.00	1.30	1.30
Gombe	130.71	134.64	3.00	114.05	119.75	5.00	1.15	1.12
Adamawa	128.70	129.34	0.50	54.20	55.08	1.62	2.37	2.35
Taraba	231.14	240.39	4.00	214.99	220.24	2.44	1.08	1.09
Jigawa	238.80	240.43	0.68	152.00	152.23	0.15	1.57	1.58
Katsina	111.94	128.54	14.83	114.07	133.27	16.84	0.98	0.96
Sokoto	101.20	99.77	-1.41	197.20	197.82	0.32	0.51	0.50
Kebbi	182.37	189.31	3.81	148.36	149.11	0.50	1.23	1.27
Zamfara	175.10	175.13	0.02	155.40	158.52	2.01	1.13	1.10
Kano	145.30	148.22	2.01	215.50	216.36	0.40	0.67	0.69
Kaduna	288.61	274.05	-5.05	202.59	204.62	1.00	1.42	1.34
Plateau	203.09	209.16	2.99	143.84	146.01	1.51	1.41	1.43
Nassarawa	210.00	210.19	0.09	96.20	93.94	-2.35	2.18	2.24
FCT	256.71	259.46	1.07	182.45	180.75	-0.93	1.41	1.44
Niger	250.51	296.04	18.17	176.83	209.17	18.29	1.42	1.42
Kwara	239.77	255.34	6.49	175.59	187.02	6.51	1.37	1.37
Kogi	165.99	170.09	2.47	125.40	126.00	0.48	1.32	1.35
Benue	273.29	317.57	16.20	199.41	261.47	31.12	1.37	1.21
Osun	38.96	42.90	10.10	33.79	36.16	7.01	1.15	1.19
Oyo	48.20	50.76	5.32	44.13	44.92	1.80	1.09	1.13
Ogun	18.97	22.41	18.11	15.97	18.63	16.67	1.19	1.20
Enugu	6.39	6.71	4.98	5.28	5.55	5.17	1.21	1.21
Ebonyi	5.09	5.53	8.70	4.85	5.83	20.14	1.05	0.95
Imo	7.52	8.08	7.45	6.31	7.14	13.22	1.19	1.13
C/River	17.61	17.68	0.38	13.35	13.41	0.44	1.32	1.32
Edo	6.05	6.17	2.03	6.17	6.30	2.03	0.98	0.98
National	**4247.76**	**4421.54**	**4.09**	**3398.10**	**3562.65**	**4.84**	**1.28**	**1.27**

Cowpea

Cowpea is a leguminous crop that is of high economic importance in Nigeria. The crop is grown in many parts of the country, especially in the north and serves as a substitute for animal protein. Nigeria is the leading producers of cowpea in Africa with not less than 60% of the total continental production. Findings showed that the crop was cultivated in an estimated land area of 4909.06 million hectares in 2018 which was higher than 4763.69 million hectares of land area used for the production of the crop in 2017, translating to about 2.96% increase. Production forecast for 2018 stood at 4007.83 MT which is higher than that of 2017 by 223,060 MT thus representing 5.89% increase. Major producing states in the country are Gombe, Taraba, Adamawa, Yobe, Kwara, Kogi and Jigawa among others. A national average yield of 0.85 tonnes per hectare was recorded for 2018 (Table 10.6).

Soybean

Soybean is one of the major crops that is grown for both food and industrial purposes. The crop is grown in many states of the country. Estimates for land area showed that 1174.83 million hectares was cultivated in 2018 as against 1119.70 million hectares cultivated last year; an increase of 4.69%. The crop output forecast for the year 2018 was 1053.56 million tonnes which is higher than 993.78 million tonnes in 2017 (Table 10.7). The increase in production output could be as a result of more demand by the poultry industry in the country that utilize soybean as major constituent in poultry feed production. Major soybeans producing states in Nigeria are; Benue, Kaduna, Gombe, Kwara, Niger and Kogi.

10.3 Oil Seeds

Benniseed

Benniseed (sesame) is an oil seed crop. It is among the leading cash crops that are grown in Nigeria which is second to Cocoa in terms of export value. The estimated land area for the cultivation of benniseed crop in 2018 was 785.80 million hectares as against the 871.45 million hectares cultivated in 2017; a decrease of 9.83%. The decrease could be as a result of diversification to other crops in the country. The production output forecast for benniseed for 2018 was 522.73 million tonnes 2017 production figure of 556.36 million tonnes, indicating a 6.04% decrease in the output (Table 10.8).

Table 10.6: Estimates of Cultivated Land Area, Production Output and Yield Forecast for Cowpea								
State	Production (MT)			Land ("000"Ha)			Yield(tons/Ha)	
	2017	2018	% Change	2017	2018	% Change	2017	2018
Borno	118.77	137.53	15.79	143.75	146.48	1.90	0.83	0.94
Yobe	164.73	207.30	25.84	97.70	99.90	2.25	1.69	2.08
Bauchi	169.58	174.67	3.00	183.48	188.90	2.95	0.92	0.92
Gombe	264.49	304.13	14.99	287.83	318.89	10.79	0.92	0.95
Adamawa	188.10	211.50	12.44	196.10	196.70	0.31	0.96	1.08
Taraba	239.89	254.28	6.00	256.41	260.11	1.44	0.94	0.98
Jigawa	109.69	154.00	40.40	113.00	116.50	3.10	0.97	1.32
Katsina	111.49	116.30	4.31	127.28	130.23	2.32	0.88	0.89
Sokoto	130.41	112.30	-13.89	133.90	135.30	1.05	0.97	0.83
Kebbi	86.80	87.72	1.06	107.48	108.46	0.91	0.81	0.81
Zamfara	115.89	87.40	-24.58	134.30	137.40	2.31	0.86	0.64
Kano	163.08	166.30	1.97	198.30	199.10	0.40	0.82	0.84
Kaduna	143.25	147.55	3.00	176.81	178.58	1.00	0.81	0.83
Plateau	90.88	93.59	2.98	173.02	175.61	1.50	0.53	0.53
Nassarawa	68.33	74.80	9.47	49.40	50.80	2.83	1.38	1.47
FCT	123.05	123.91	0.70	138.40	141.53	2.26	0.89	0.88
Niger	88.11	103.72	17.71	93.90	110.53	17.71	0.94	0.94
Kwara	189.89	202.07	6.42	204.24	217.65	6.57	0.93	0.93
Kogi	163.96	165.66	1.04	355.28	356.78	0.42	0.46	0.46
Benue	116.62	126.38	8.37	136.77	148.21	8.37	0.85	0.85
Osun	63.68	70.05	10.00	188.11	206.97	10.02	0.34	0.34
Oyo	98.84	100.12	1.29	128.27	128.69	0.33	0.77	0.78
Ekiti	91.65	92.16	0.55	160.30	163.67	2.10	0.57	0.56
Ondo	114.00	114.60	0.53	150.00	150.00	0.00	0.76	0.76
Ogun	43.57	50.13	15.06	67.60	77.88	15.20	0.64	0.64
Lagos	57.2	58.65	2.54	107.40	108.58	1.10	0.53	0.54
Anambra	61.60	62.34	1.20	109.90	111.22	1.20	0.56	0.56
Enugu	68.78	72.17	4.93	94.76	99.37	4.86	0.73	0.73
Ebonyi	47.39	46.48	-1.93	72.07	71.70	-0.52	0.66	0.65
Abia	43.56	43.56	0.00	49.23	47.08	-4.36	0.88	0.93
Imo	65.72	65.72	0.00	97.07	91.96	-5.26	0.68	0.71
Akwa Ibom	33.72	37.22	10.38	28.80	30.10	4.51	1.17	1.24
Bayelsa	22.96	23.77	3.51	28.50	29.16	2.33	0.81	0.81
C/Rivers	23.95	23.95	0.00	28.30	27.67	-2.23	0.85	0.87
Delta	51.99	40.65	-21.81	57.40	43.40	-24.40	0.91	0.94
Edo	3.87	3.95	1.98	5.28	5.39	2.01	0.73	0.73
Rivers	45.28	51.20	13.07	83.35	98.58	18.27	0.54	0.52
National	**3784.77**	**4007.83**	**5.89**	**4763.69**	**4909.06**	**3.05**	**0.82**	**0.85**

Table 10.7: **Estimates of Cultivated Land Area, Production Output and Yield Forecast for** Soybean								
State	Production ("000" MT)			Land ("000" Ha)			**Yield (tons/Ha)**	
	2017	**2018**	**% Change**	**2017**	**2018**	**% Change**	**2017**	**2018**
Bauchi	23.42	25.12	6.77	34.95	36.79	5.00	0.67	0.68
Gombe	52.59	57.68	8.82	60.88	66.77	8.82	0.86	0.86
Adamawa	44.13	46.78	5.66	50.3	53.04	5.17	0.88	0.88
Taraba	52.44	54.01	2.91	57.37	55.26	-3.82	0.91	0.98
Jigawa	35.36	34.22	-3.33	43.97	42.16	-4.29	0.80	0.81
Katsina	29.1	37.22	21.82	39.73	43.7	9.08	0.73	0.85
Sokoto	15.66	22	28.82	28.14	32.47	13.34	0.56	0.68
Kebbi	32.64	35.7	8.57	43.18	43.91	1.66	0.76	0.81
Zamfara	23.97	21.73	-10.31	43.5	43.25	-0.58	0.55	0.50
Kano	70.24	66.07	-6.31	71.53	65.88	-8.58	0.98	1.00
Kaduna	94.63	97.48	2.92	100.44	101.44	0.99	0.94	0.96
Plateau	23.42	24.12	2.90	45.87	46.55	1.46	0.51	0.52
Nassarawa	29.17	27.2	-7.24	38.6	35.9	-7.52	0.76	0.76
FCT	34.37	34.4	0.09	60.1	60.7	0.99	0.57	0.57
Niger	34.87	42.73	18.39	49.83	80.37	38.00	0.70	0.53
Kwara	47.59	50.69	6.12	53.11	56.57	6.12	0.90	0.90
Kogi	30.98	34.18	9.36	56.69	57.14	0.79	0.55	0.60
Benue	219.26	241.19	9.09	87.95	92.35	4.76	2.49	2.61
Osun	19.15	20.11	4.77	34.5	34.72	0.63	0.56	0.58
Oyo	21.03	21.72	3.18	35	35.14	0.40	0.60	0.62
Ekiti	8.94	9.08	1.54	24.74	26.06	5.07	0.36	0.35
Ondo	31.26	26.56	-17.70	28.78	28.07	-2.53	1.09	0.95
Ogun	18.65	22.53	17.22	24.51	29.85	17.89	0.76	0.75
Lagos	0.91	1.05	13.33	6.03	6.75	10.67	0.15	0.16
National	**993.78**	**1053.56**	**5.67**	**1119.70**	**1174.83**	**4.69**	**0.89**	**0.90**

Table 10.8: Estimates of Cultivated Land Area , Production Output and Yield Forecast for Benniseed								
State	Production ("000" MT)			Land ("000" Ha)			Yield (tons/Ha)	
	2017	2018	% Change	2017	2018	% Change	2017	2018
Borno	6.91	7.32	5.88	15.21	16.71	9.86	0.45	0.44
Yobe	3.15	3.20	1.59	26.38	13.92	-47.22	0.12	0.23
Bauchi	9.38	9.67	3.14	19.78	20.37	3.00	0.47	0.47
Gombe	7.94	9.92	24.95	25.85	31.60	22.24	0.31	0.31
Adamawa	12.47	16.62	33.27	17.30	16.40	-5.20	0.72	1.01
Taraba	40.77	42.81	5.00	56.92	58.68	3.09	0.72	0.73
Jigawa	8.73	18.96	117.20	17.28	15.50	-10.30	0.51	1.22
Katsina	15.27	16.80	10.00	47.94	52.73	10.00	0.32	0.32
Sokoto	15.03	14.50	-3.53	17.35	27.61	59.13	0.87	0.53
Kebbi	11.84	7.07	-40.28	25.33	9.76	-61.47	0.47	0.72
Zamfara	23.53	21.35	-9.26	38.61	20.73	-46.30	0.61	1.03
Kano	28.61	24.75	-13.48	47.18	20.36	-56.85	0.61	1.22
Kaduna	36.25	26.25	-27.59	38.73	30.62	-20.94	0.94	0.86
Plateau	55.01	29.74	-45.93	68.37	54.74	-19.93	0.80	0.54
NAssarawa	74.45	50.08	-32.74	89.90	57.21	-36.37	0.83	0.88
FCT	52.85	54.49	3.10	81.23	81.50	0.33	0.65	0.67
Niger	16.29	17.00	4.36	42.68	46.83	9.71	0.38	0.36
Kwara	17.14	17.00	-0.83	21.22	22.72	7.05	0.81	0.75
Kogi	58.73	62.83	6.98	89.41	90.31	1.01	0.66	0.70
Benue	62.01	72.37	16.70	84.78	97.50	15.00	0.73	0.74
National	**556.36**	**522.73**	**-6.04**	**871.45**	**785.80**	**-9.83**	**0.60**	**0.69**

10. 4. Fibre

Cotton

Cotton is one of major annual fiber crop of high export value that is also grown in Nigeria. The crop is grown mostly in the northern states of Borno, Yobe, Bauchi, Gombe, Adamawa, Taraba, Jigawa, Katsina, Sokoto, Kebbi, Zamfara, Kano, Kaduna, Plateau and FCT and to some extent in Cross River. The total land area estimated for cotton production in 2018 was 556.18 million hectares which was slightly higher than that of 2017 by 0.06%. Bauchi has the largest area devoted for cotton production followed by Katsina, Borno, Kano and FCT. The production forecast for cotton in 2018 was 231.95 million tonnes as against 215.30 million tonnes in 2017, indicating 7.74% increase in the output (Table 10.9).

10.5. Root and Tubers

The diverse vegetation zones of Nigeria have made it suitable for many crops. Some adapt to the Northern ecology and others to the Southern ecology. Root and tuber crops includes Yam, Cassava, Irish and Sweet Potatoes, and Cocoyam. These crops adapt more to the Southern ecology with few northern states especially in the North Central zone. They are consumed for their starchy tubers and serves as income source for majority of household living in the root and tuber crops producing states.

Yam

Yam is the most important tuber crop grown in Nigeria making the country to contribute significantly to total tonnage among the African countries. Production increased in 2018 to about 53,428.1MT against 51,837.6 MT in 2017.i.e an increase of 3.1%. Land area cultivated increased from 6,535,430 Ha in 2017 to 6,838,860 Ha in 2018, i.e. about 4.6% increase. Generally, there was anticipation of bumper harvests in the Yam producing states though some were hampered as a result of the flood which washed away a significant production output and resulted to a lesser production as in Kogi State. A decrease in both land and production was recorded in Benue state which was probably due to the ethnic clashes in the state in the early part of 2018. The national yield indicated a decrease by 0.3% in 2018 with 8.43 tons/ha as against 8.45 tons/ha in 2017 (Table 10.10).

Table 10.9: Estimates of Cultivated Land Area, Production Output and Yield Forecast for Cotton								
State	Production ("000" MT)			Land ("000" Ha)			Yield (tons/Ha)	
	2017	2018	% Change	2017	2018	% Change	2017	2018
Borno	13.4	13.40	0.00	45.30	45.40	0.22	0.30	0.30
Yobe	11.70	11.75	0.46	32.60	32.64	0.13	0.36	0.36
Bauchi	28.70	28.78	0.29	96.60	96.60	0.00	0.30	0.30
Gombe	11.40	11.46	0.49	32.50	32.46	-0.12	0.35	0.35
Adamawa	10.00	10.08	0.75	22.10	22.09	-0.06	0.45	0.46
Taraba	3.30	3.30	0.00	22.50	22.50	0.00	0.15	0.15
Jigawa	7.50	7.60	1.33	35.00	35.00	0.00	0.21	0.22
Katsina	11.80	27.66	134.41	62.77	62.80	0.05	0.19	0.44
Sokoto	26.9	26.93	0.10	38.10	38.10	-0.01	0.71	0.71
Kebbi	14.30	14.34	0.31	39.20	39.19	-0.02	0.21	0.37
Zamfara	8.2	8.29	1.14	27.6	27.60	0.01	1.00	0.30
Kano	27.5	27.52	0.08	44.30	44.31	0.03	0.59	0.62
Kaduna	26.20	26.24	0.15	8.70	8.69	-0.13	0.71	3.02
Plateau	6.20	6.30	1.61	9.50	9.50	0.00	0.86	0.66
FCT	8.20	8.30	1.22	39.10	39.30	0.51	0.21	0.21
National	**215.30**	**231.95**	**7.74**	**555.87**	**556.18**	**0.06**	**0.44**	**0.56**

Table 10.10: Estimates of Cultivated Land Area, Production Output and Yield Forecast for Yam

State	Production ("000" MT)			Land ("000" Ha)			Yield (tons/Ha)	
	2017	2018	% Change	2017	2018	% Change	2017	2018
Taraba	3209.00	3211.79	0.09	319.20	321.21	0.63	10.05	10.00
Kebbi	896.80	927.72	3.45	141.65	146.90	3.70	6.33	6.32
Kaduna	2483.89	2558.41	3.00	195.87	197.83	1.00	12.68	12.93
Plateau	1726.37	1778.15	3.00	133.12	135.14	1.52	12.97	13.16
Nassarawa	3829.50	3830.20	0.02	200.30	202.23	0.96	19.12	18.94
FCT	2848.30	2848.96	0.02	685.40	691.56	0.90	4.16	4.12
Niger	3112.49	3657.80	17.52	244.32	275.81	12.89	12.74	13.26
Kwara	2178.79	2342.19	7.50	240.53	258.58	7.50	9.06	9.06
Kogi	1696.46	1403.97	-17.24	188.87	191.10	1.18	8.98	7.35
Benue	2894.78	2443.26	-15.60	231.65	190.10	-17.94	12.50	12.85
Osun	1810.49	1828.60	1.00	195.36	195.37	0.01	9.27	9.36
Oyo	1298.85	1299.22	0.03	245.19	248.32	1.28	5.30	5.23
Ekiti	1396.72	1456.69	4.29	193.72	197.53	1.96	7.21	7.37
Ondo	1791.20	1791.46	0.01	185.20	186.71	0.81	9.67	9.60
Ogun	1004.06	1033.09	2.89	148.88	167.79	12.70	6.74	6.16
Lagos	892.68	912.17	2.18	193.47	201.09	3.94	4.61	4.54
Anambra	877.60	878.43	0.09	158.30	159.21	0.57	5.54	5.52
Enugu	2662.90	2811.49	5.58	224.50	235.73	5.00	11.86	11.93
Ebonyi	1825.42	2451.28	34.29	219.74	274.68	25.00	8.31	8.92
Abia	1664.29	1787.54	7.41	214.06	227.06	6.07	7.77	7.87
Imo	1713.77	1776.91	3.68	238.54	244.66	2.56	7.18	7.26
Akwa Ibom	1735.20	1737.43	0.13	286.80	287.35	0.19	6.05	6.05
Bayelsa	1189.13	1206.32	1.45	269.91	295.70	9.56	4.41	4.08
C/River	2831.11	2873.58	1.50	328.63	332.57	1.20	8.61	8.64
Delta	1223.87	1282.15	4.76	160.49	162.77	1.42	7.63	7.88
Edo	1931.74	2028.18	4.99	293.70	308.36	4.99	6.58	6.58
Rivers	1112.20	1271.09	14.29	398.03	503.51	26.50	2.79	2.52
National	**51837.61**	**53428.10**	**3.07**	**6535.43**	**6838.86**	**4.64**	**8.45**	**8.43**

Cassava

Cassava is virtually cultivated in all the states of the federation and is also an important root and tuber crop. There was overall increase in land area and production in the key producing states as a result of the good price the crop fetched in 2017. There was an increase in production to 58,472.34 MT in 2018 as against 55,147.06 MT in 2017, an increase of 6.03%. Cultivated land area in 2018 increased to 9, 952,790 Ha compared with 9,194,940 Ha in 2017, indicating an increase of 8.24%. The continuous crisis in Zamfara in recent times has probably led to decrease in Cassava land area as well as the production of the state by 12.78% and 14.17% respectively. Generally, there was decrease in national average yield to 5.8 tons/Ha in 2018 as against 6 tons/Ha in 2017 (Table 10.11).

Cocoyam

Cocoyam is mostly consumed directly in most growing states and in few instances processed into flour. Land area cultivated in 2018 increased by 7.41% from 1,036,890 Ha in 2017 to 1,113,770 Ha. A significant increase of 6.52% was recorded in 2018 in production output with 7,999,010 tons against 7,509,160 tons in 2017. States with major production for 2018 include Imo (567.24 MT), Anambra (587.41 MT), and Bayelsa (488.23 MT). Overall national average yield has dropped by 0.56% in 2018 to 7.89 tons/ha against 7.93 tons/ha in 2017 (Table 10.12).

10.6 Spice

The major spice crop grown in Nigeria is Ginger. A number of spice crops are available in the wild. They are used in most cases dried and they add to the aroma of household meals. Ginger is the most important grown spice and Kaduna state is the major producer in Nigeria.

Ginger

Ginger production increased in general for all the states where it is grown except in Benue state where both production and land area decreased by -5.81% and -9.82% respectively. The total land area put to production in 2018 was 86,310 Hectares against 79,940 Hectares in 2017, indicating an increase of 7.97%. Production in 2018 was 677,870 MT compared to 663, 190 MT in 2017 representing 2.21% increase. The average yield in 2018 was 6.10 tons/ha compared with 7.37 tons/ha in 2017 indicating a decrease by 20.82% (Table 10.13).

Table 1 0.11: Estimates of Cultivated Land Area , Production Output and Yield Forecast for Cassava

State	Production ("000" MT)			Land ("000" Ha)			Yield (tons/Ha)	
	2017	2018	% Change	2017	2018	% Change	2017	2018
Yobe	493.50	494.19	0.14	183.50	184.40	0.49	2.69	2.68
Bauchi	484.77	494.19	1.94	126.08	130.71	3.67	3.84	3.78
Gombe	698.71	789.13	12.94	123.25	123.39	0.12	5.67	6.40
Taraba	1379.59	1462.37	6.00	184.35	190.00	3.06	7.48	7.70
Jigawa	1341.50	1341.73	0.02	130.40	131.51	0.85	10.29	10.20
Katsina	341.28	439.04	28.64	112.27	145.51	29.61	3.04	3.02
Sokoto	341.3	343.1	0.53	93.1	93.2	0.13	3.67	3.68
Kebbi	648.26	656.07	1.20	139.83	142.33	1.79	4.64	4.61
Zamfara	266.60	228.81	-14.17	152.7	133.2	-12.78	1.75	1.72
Kaduna	2243.09	2310.38	3.00	195.18	197.13	1.00	11.49	11.72
Plateau	1052.68	1084.26	3.00	381.20	386.92	1.50	2.76	2.80
Nassarawa	1722.10	1723.47	0.08	289.50	291.62	0.73	5.95	5.91
FCT	1770.26	1803.34	1.87	449.27	454.87	1.25	3.94	3.96
Niger	1385.22	1748.83	26.25	355.61	415.47	16.83	3.90	4.21
Kwara	1467.30	1577.34	7.50	441.64	474.77	7.50	3.32	3.32
Kogi	3606.62	3663.10	1.57	381.66	384.88	0.84	9.45	9.52
Benue	3646.48	4055.88	11.23	339.86	444.94	30.92	10.73	9.12
Osun	1805.41	1823.42	1.00	187.03	183.29	-2.00	9.65	9.95
Oyo	1775.90	1829.81	3.04	187.00	190.58	1.91	9.50	9.60
Ekiti	1724.78	1735.81	0.64	233.55	236.78	1.38	7.39	7.33
Ondo	3551.10	3553.81	0.08	224.30	226.54	1.00	15.83	15.69
Ogun	1931.48	2246.28	16.30	192.14	193.66	0.79	10.05	11.60
Lagos	1596.88	1632.33	2.22	261.21	269.88	3.32	6.11	6.05
Anambra	1929.09	1946.52	0.90	228.38	253.61	11.05	8.45	7.68
Enugu	2086.19	2190.49	5.00	221.23	232.29	5.00	9.43	9.43
Ebonyi	15.50	20.20	30.32	710.00	912.42	28.51	0.02	0.02
Abia	1408.12	1548.93	10.00	246.90	259.25	5.00	5.70	5.97
Imo	3357.82	3506.17	4.42	322.50	327.17	1.45	10.41	10.72
Akwa Ibom	1754.00	1755.81	0.10	290.50	293.18	0.92	6.04	5.99
Bayelsa	1166.86	1177.40	0.90	331.59	368.23	11.05	3.52	3.20
C/River	2016.81	2047.06	1.50	397.19	409.10	3.00	5.08	5.00
Delta	1788.46	1796.94	0.47	236.05	239.18	1.32	7.58	7.51
Edo	1449.60	1667.03	15.00	325.26	374.05	15.00	4.46	4.46
Rivers	2899.80	3779.09	30.32	520.71	658.73	26.51	5.57	5.74
National	**55147.06**	**58472.34**	**6.03**	**9194.94**	**9952.79**	**8.24**	**6.00**	**5.87**

Table 1 0.12: Estimates of Cultivated Land Area , Production Output and Yield Forecast for Cocoyam

State	Production ("000" MT)			Land ("000" Ha)			Yield (ton/Ha)	
	2017	2018	% Change	2017	2018	% Change	2017	2018
Taraba	204.45	212.63	4.00	95.48	96.21	0.76	2.14	2.21
Plateau	70.72	74.26	5.01	12.20	12.98	6.43	5.80	5.72
Nassarawa	182.26	184.70	1.34	26.89	26.98	0.35	6.78	6.84
FCT	66.50	68.19	2.54	13.72	14.06	2.47	4.85	4.85
Niger	261.81	261.92	0.04	24.91	25.07	0.66	10.51	10.45
Kwara	154.94	153.77	-0.75	34.35	37.10	8.01	4.51	4.14
Kogi	209.27	209.05	-0.11	19.55	19.55	0.00	10.70	10.69
Benue	127.23	126.74	-0.38	28.43	28.58	0.54	4.48	4.43
Osun	329.18	362.70	10.18	26.98	29.14	8.01	12.20	12.45
Oyo	130.66	130.92	0.20	50.14	50.40	0.51	2.61	2.60
Ekiti	501.59	503.52	0.38	44.30	44.32	0.03	11.32	11.36
Ondo	550.22	550.22	0.00	34.23	34.23	0.00	16.07	16.07
Ogun	340.12	345.14	1.47	29.37	29.70	1.12	11.58	11.62
Lagos	139.05	142.72	2.64	29.86	31.40	5.15	4.66	4.55
Anambra	471.58	587.41	24.56	47.47	62.68	32.03	9.93	9.37
Enugu	766.41	804.71	5.00	80.24	84.25	5.00	9.55	9.55
Ebonyi	271.55	285.48	5.13	98.72	118.46	20.00	2.75	2.41
Abia	304.71	291.92	-4.20	40.81	40.07	-1.82	7.47	7.29
Imo	405.54	567.24	39.87	79.02	87.80	11.11	5.13	6.46
Akwa Ibom	418.30	418.30	0.00	37.65	38.81	3.07	11.11	10.78
Bayelsa	426.17	488.23	14.56	46.90	61.92	32.03	9.09	7.88
C/River	422.18	425.47	0.78	34.79	34.81	0.05	12.14	12.22
Delta	195.26	200.37	2.62	38.13	38.46	0.87	5.12	5.21
Edo	312.80	344.10	10.01	33.27	36.60	10.01	9.40	9.40
Rivers	246.66	259.31	5.13	29.48	30.19	2.40	8.37	8.59
National	**7509.16**	**7999.01**	**6.52**	**1036.89**	**1113.77**	**7.41**	**7.93**	**7.89**

Table 10.13: Estimates of Cultivated Land Area, Production Output and Yield Forecast for Ginger								
State	Production ("000" MT)			Land ("000" Ha)			Yield(tons/Ha)	
	2017	2018	% Change	2017	2018	% Change	2017	2018
Bauchi	24.00	25.00	4.16	2.40	4.49	87.05	10.00	5.57
Kaduna	508.29	523.54	3.00	48.44	48.93	1.00	10.49	10.70
Nassarawa	59.30	61.89	4.36	13.90	19.19	38.04	4.27	3.23
Benue	71.60	67.44	-5.81	15.20	13.71	-9.82	4.71	4.92
National	**663.19**	**677.87**	**2.21**	**79.94**	**86.31**	**7.97**	**7.37**	**6.10**

10.7 Vegetables

Vegetable crops include Tomatoes, Onion, Okro, Cabbage, and Lettuce among others. They are grown for their leaves and fruits and eaten cooked or half cooked. They are a major source of vitamins in household meals

Tomato

Tomato is an important vegetable crop grown across the 36 states and the FCT. Production forecast for 2018 showed an increased by 4.54% from 2809.26 MT in 2017 to 2936.87 MT in 2018. Estimated land area devoted to its cultivation in 2018 was 1,386,120 Ha as against 1,310,860 Ha in 2017, which represents an increase of 5.43%. High increase were recorded for Anambra (31.58%), Adamawa (21.43%), Zamfara (19.55%), Kano (16.69%) and Yobe (15.95%) states. The national average yield in 2018 was 2.12 MT/Ha which is less than that of 2017 (2.14 MT/Ha) (Table 10.14).

Onion

Onion is mainly produced in northern Nigeria. In 2018, an estimated land area of 549, 880 Ha was put to production lower than 550,400 Ha in 2017, signifying 0.09% decrease. Production forecast indicated a decrease by -1.12% in 2018 (1,416,950 MT) from 1,433,000 MT in 2017. Generally, there was increase in production forecast in all states except, Sokoto and Jigawa with decrease by -36.86% and -2.68% respectively. Average national yield decreased to 2.83 MT/Ha in 2018 as against 2.84 MT/Ha in 2017 (Table 10.15).

Table 10.14: Estimates of Cultivated Land Area, Production Output and Yield Forecast for Tomato								
State	Production ("000" MT)			Land ("000" Ha)			Yield (tons/Ha)	
	2017	2018	% Change	2017	2018	% Change	2017	2018
Borno	215.86	236.72	9.66	32.58	30.13	-7.51	6.63	7.86
Yobe	104.73	121.44	15.95	19.25	19.27	0.11	5.44	6.30
Bauchi	177.59	181.25	2.06	34.58	35.66	3.11	5.14	5.08
Gombe	188.81	213.10	12.87	32.62	29.94	-8.22	5.79	7.12
Adamawa	98.16	119.20	21.43	32.53	43.30	33.11	3.02	2.75
Taraba	120.87	124.24	2.79	37.58	40.51	7.79	3.22	3.07
Jigawa	73.34	73.72	0.52	38.58	37.30	-3.32	1.90	1.98
Katsina	106.05	119.43	12.61	39.58	42.59	7.61	2.68	2.80
Sokoto	161.48	130.84	-18.97	16.77	17.22	2.67	9.63	7.60
Kebbi	154.02	126.75	-17.70	58.49	61.13	4.51	2.63	2.07
Zamfara	142.38	170.21	19.55	30.66	34.85	13.68	4.64	4.88
Kano	145.84	170.18	16.69	48.76	53.37	9.46	2.99	3.19
Kaduna	178.31	183.66	3.00	44.58	45.03	1.00	4.00	4.08
Plateau	54.94	56.58	2.98	45.58	46.50	2.02	1.21	1.22
Nassarawa	100.80	102.25	1.44	38.20	47.14	23.41	2.64	2.17
FCT	58.84	61.65	4.78	47.58	53.43	12.30	1.24	1.15
Niger	120.57	121.40	0.69	15.38	17.70	15.07	7.84	6.86
Kwara	50.86	54.16	6.49	49.58	52.80	6.50	1.03	1.03
Kogi	80.61	80.21	-0.50	50.58	50.88	0.60	1.59	1.58
Benue	72.98	73.95	1.33	15.38	17.10	11.18	4.75	4.32
Osun	33.64	28.63	-14.89	52.58	53.65	2.03	0.64	0.53
Oyo	36.36	36.64	0.78	53.58	53.88	0.55	0.68	0.68
Ekiti	23.87	23.02	-3.57	54.58	54.13	-0.83	0.44	0.43
Ondo	35.64	36.10	1.29	9.82	13.01	32.45	3.63	2.78
Ogun	89.94	91.99	2.28	56.58	57.44	1.52	1.59	1.60
Lagos	29.96	33.82	12.88	57.58	60.05	4.29	0.52	0.56
Anambra	12.92	17.00	31.58	7.36	11.00	49.46	1.76	1.55
Enugu	14.78	15.52	4.99	59.58	62.53	4.96	0.25	0.25
Ebonyi	51.68	52.87	2.30	32.91	39.22	19.19	1.57	1.35
Abia	11.27	13.21	17.24	61.58	66.86	8.57	0.18	0.20
Imo	11.79	12.61	6.92	1.71	3.00	75.44	6.89	4.20
Delta	27.38	31.07	13.49	66.58	67.59	1.52	0.41	0.46
Edo	22.99	23.44	1.97	67.58	68.91	1.97	0.34	0.34
National	**2809.26**	**2936.87**	**4.54**	**1310.86**	**1387.12**	**5.82**	**2.14**	**2.12**

Table 10.15: Estimates of Cultivated Land Area, Production Output and Yield Forecast for Onion								
State	Production ("000" MT)			Land ("000" Ha)			Yield (tons/Ha)	
	2017	2018	% Change	2017	2018	% Change	2017	2018
Borno	70.30	70.30	0.00	17.90	18.00	0.56	3.93	3.91
Yobe	93.90	94.00	0.11	49.30	49.30	0.00	1.90	1.91
Bauchi	91.40	93.20	1.97	42.30	43.13	1.96	2.16	2.16
Gombe	86.90	88.68	2.05	47.60	48.58	2.05	1.83	1.83
Adamawa	139.80	139.90	0.07	57.7	58.00	0.52	2.42	2.41
Taraba	68.70	72.82	6.00	12.60	13.42	6.51	5.45	5.43
Jigawa	79.20	77.08	-2.68	34.70	28.72	-17.24	2.28	2.68
Katsina	94.80	102.61	8.24	38.70	38.72	0.06	2.45	2.65
Sokoto	169.30	106.90	-36.86	30.30	30.60	0.99	5.59	3.49
Kebbi	122.30	125.58	2.68	43.40	44.00	1.38	2.82	2.85
Zamfara	111.70	122.30	9.49	26.70	27.00	1.12	4.18	4.53
Kano	99.70	111.80	12.14	50.80	50.80	0.00	1.96	2.20
Kaduna	99.00	101.97	3.00	30.80	31.12	1.03	3.21	3.28
Plateau	47.80	49.22	2.96	37.60	38.30	1.85	1.27	1.29
Benue	50.10	50.10	0.00	26.10	26.30	0.77	1.92	1.90
Lagos	8.10	10.50	29.63	3.90	3.90	0.00	2.08	2.69
National	**1433.00**	**1416.95**	**-1.12**	**550.40**	**549.88**	**-0.09**	**2.84**	**2.83**

Okro

The total land area cultivated for Okro increased by 7.14% in 2018 as against 1,302,200 Ha cultivated in 2017. Total production forecast showed a significant increase of 7.69% in 2018 from 1,562,000 Ha in 2017. There was increase in most states like Jigawa (31.84%), Kano (34.52%), Ogun (34.00%) but some states decreased outputs. The average national yield increased to 1.75 MT/Ha in 2018 as against 1.73 MT/Ha in 2017 (Table 10.16).

Table 10.16: Estimates of Land area Cultivated Land Area, Production Output and YieldForecast for Okro								
State	Production ("000" MT)			Land ("000" Ha)			Yield (tons/Ha)	
	2017	2018	% Change	2017	2018	% Change	2017	2018
Borno	28.40	28.50	0.35	33.20	33.40	0.60	0.86	0.85
Yobe	22.60	22.80	0.88	30.10	30.30	0.66	0.75	0.75
Bauchi	23.60	23.86	1.08	17.70	25.23	42.55	1.33	0.95
Gombe	25.30	25.40	0.40	33.20	33.40	0.60	0.76	0.76
Adamawa	17.30	17.50	1.16	31.30	31.60	0.96	0.55	0.55
Taraba	35.00	35.92	2.63	19.90	20.81	4.57	1.76	1.73
Jigawa	20.10	26.50	31.84	17.50	17.70	1.14	1.15	1.50
Katsina	17.10	16.52	-3.38	14.20	15.10	6.32	1.20	1.09
Sokoto	27.60	21.40	-22.46	14.70	14.70	0.00	1.88	1.46
Kebbi	40.90	37.10	-9.29	36.80	37.00	0.54	1.11	1.00
Zamfara	39.40	40.90	3.81	21.10	21.20	0.47	1.87	1.93
Kano	19.70	26.50	34.52	48.50	48.60	0.21	0.41	0.55
Kaduna	44.40	45.72	2.98	14.20	15.27	7.55	3.13	2.99
Plateau	52.30	52.30	0.00	30.80	31.00	0.65	1.70	1.69
Nassarawa	28.20	28.30	0.35	22.30	22.50	0.90	1.26	1.26
FCT	39.20	42.36	8.06	51.80	57.35	10.72	0.76	0.74
Niger	13.50	13.70	1.48	8.80	8.30	-5.68	1.53	1.65
Kwara	74.20	79.03	6.51	7.30	7.67	5.09	10.16	10.30
Kogi	78.20	81.60	4.35	38.60	39.10	1.30	2.03	2.09
Benue	55.00	55.30	0.55	36.80	36.90	0.27	1.49	1.50
Osun	21.80	20.71	-5.00	42.00	43.26	3.00	0.52	0.48
Oyo	37.10	37.10	0.00	6.60	6.30	-4.55	5.62	5.89
Ekiti	13.70	13.19	-3.71	23.50	25.72	9.44	0.58	0.51
Ondo	11.00	11.10	0.91	40.80	41.00	0.49	0.27	0.27
Ogun	28.00	37.52	34.00	13.50	13.52	0.16	2.07	2.77
Lagos	60.00	60.10	0.17	10.70	10.60	-0.93	5.61	5.67
Anambra	19.10	19.20	0.52	24.50	24.70	0.82	0.78	0.78
Enugu	20.40	21.41	4.96	20.90	21.94	4.96	0.98	0.98
Ebonyi	15.10	15.50	2.65	11.50	12.50	8.70	1.31	1.24
Abia	18.10	20.56	13.61	14.70	17.57	19.51	1.23	1.17
Imo	26.00	30.85	18.64	51.10	55.36	8.33	0.51	0.56
Akwa Ibom	103.70	103.80	0.10	114.60	114.50	-0.09	0.90	0.91
Bayelsa	62.50	118.14	89.03	104.70	135.10	29.03	0.60	0.87
C/Rivers	100.50	113.19	12.63	109.90	120.86	9.98	0.91	0.94
Delta	100.00	103.45	3.45	42.10	42.50	0.96	2.38	2.43
Edo	99.80	111.78	12.00	35.70	39.27	10.00	2.80	2.85
Rivers	123.20	123.30	0.08	106.60	123.30	15.67	1.16	1.00
National	**1562.00**	**1682.12**	**7.69**	**1302.20**	**1395.13**	**7.14**	**1.73**	**1.75**

11.0 LIVESTOCK AND FISHERIES PRODUCTION IN NIGERIA

The contribution of livestock production systems to the food security of the poor and under-nourished groups is well documented. Acquisition of livestock is widely recognized as a pathway out of poverty, a major income generating activity, a financial instrument, and a means of income diversification. Achieving the Sustainable Development Goals (SDGs) in many developing countries would therefore depend greatly on the ability of developing countries to build more sustainable investments into livestock production that is capable of meeting the increasing demand for the food of animal source. Consumption of animal source foods (animal products) is reported to increase geometrically faster in developing countries (Nigeria inclusive) than in developed countries.

Over the years, livestock production has been an avenue for wealth and job creation for millions of Nigerians. The population growth in the country also necessitated the need for increasing growth in investments into ventures of animal production. In spite of the many contributions of livestock industry to the socio-economic development of Nigerians, the sector is limited with some issues that need urgent attentions. Principal among the factors limiting livestock production in Nigeria are:

(i.) inadequate policy on livestock breed improvement
(ii.) High cost of livestock feed
(iii.) Conflicts between crop farmers and pastoralists
(iv.) Inadequate government intervention on livestock input supplies

The chart below highlighted (as a reminder to both government and private sector) the impacts of livestock industry in effective climate change and natural resource usage; good health and adequate nutrition of the populace as well as equity and growth of the nation. Major redistribution of investments towards livestock value chain is capable of enhancing the GDP of our beautiful nation –Nigeria.

Livestock Population in Nigeria

Figures11.1 to 11.9 show species-based livestock population in 2018. The population of cattle in the year under review was highest in Zamfara State (3,402,881) (Figure 1). The population of goats was presented in Figure 2. The highest population was found in Katsina State (6,151,776). Table11.1 also showed the total population of livestock species in Nigeria. The total population of cattle, sheep and goats in Nigeria were 20,231,598; 45,617,072 and 79,989,657, respectively. That of chicken, pigs and rabbits were 193,578,481; 8,267,284 and 1,034,587, respectively. The total population of donkey, camel and horses were 978,402; 279,955 and 102,323, respectively.

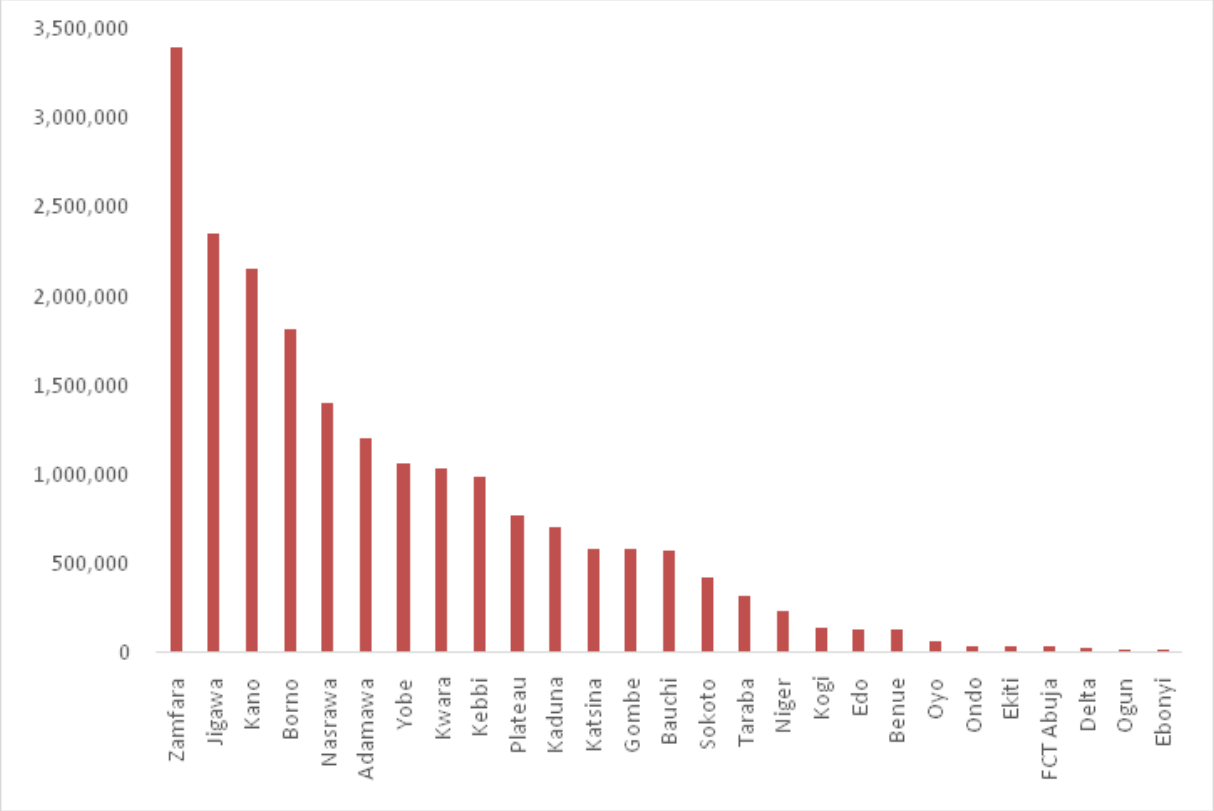


Figure 11.1: 2018 Cattle population in Nigeria
Source: Federal Department of Animal Production and Husbandry Services, FMARD, Abuja

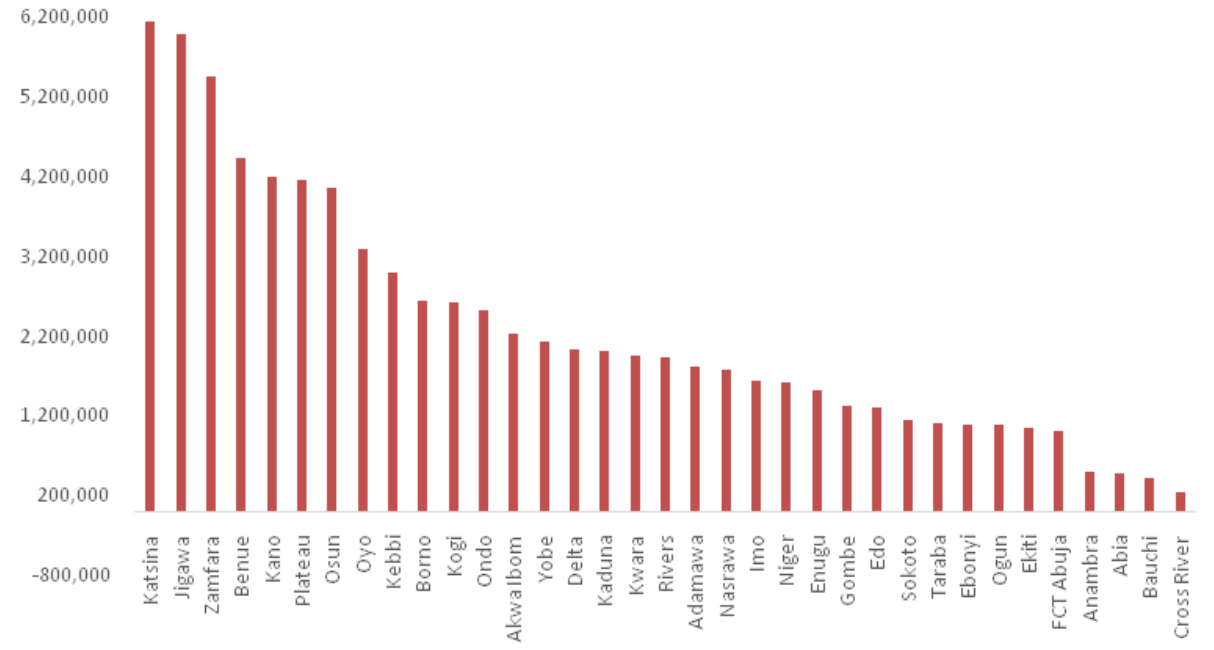


Figure 11.2: 2018 Goat population in Nigeria
Source: Federal Department of Animal Production and Husbandry Services, FMARD, Abuja

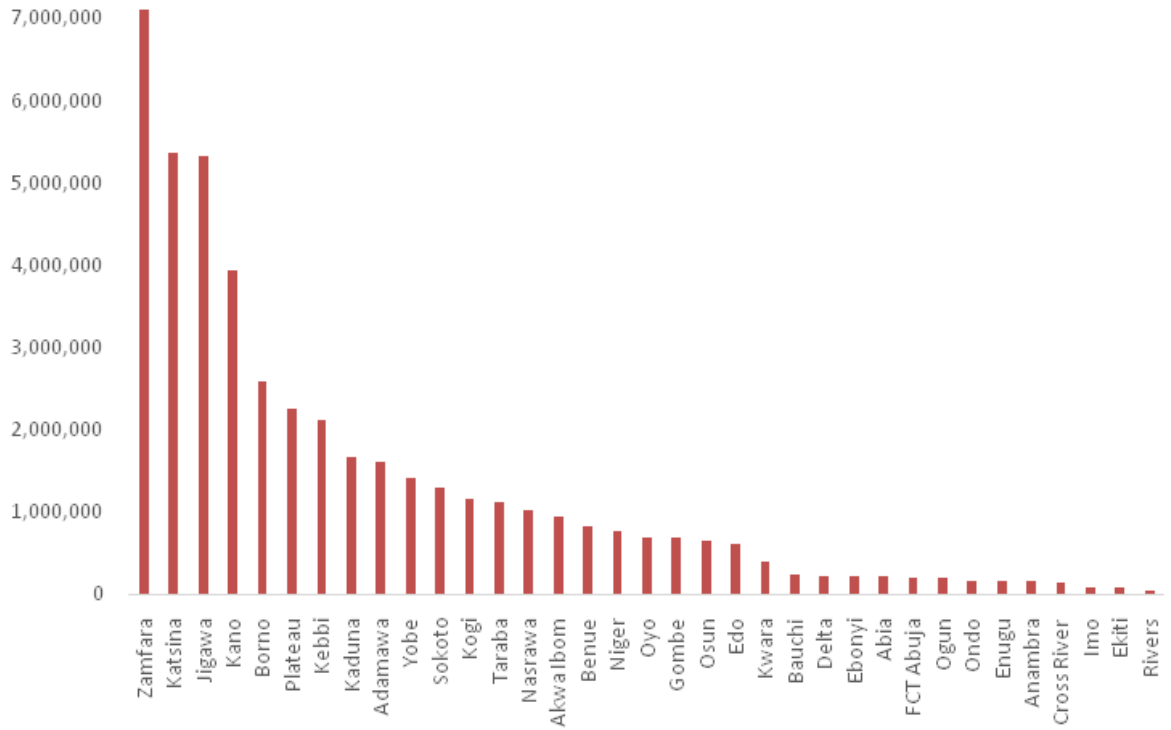


Figure 11.3: 2018 Sheep population in Nigeria
Source: Federal Department of Animal Production and Husbandry Services, FMARD, Abuja

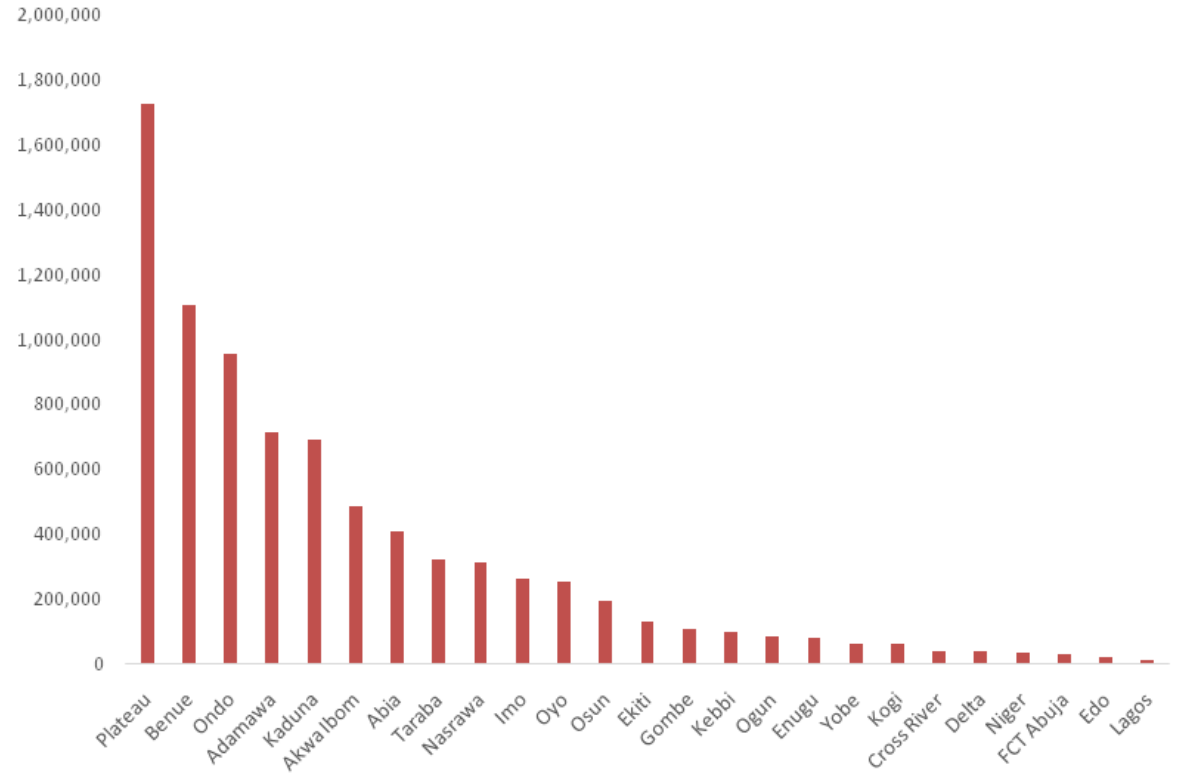


Figure 11.4: 2018 Pig population in Nigeria
Source: Federal Department of Animal Production and Husbandry Services, FMARD, Abuja

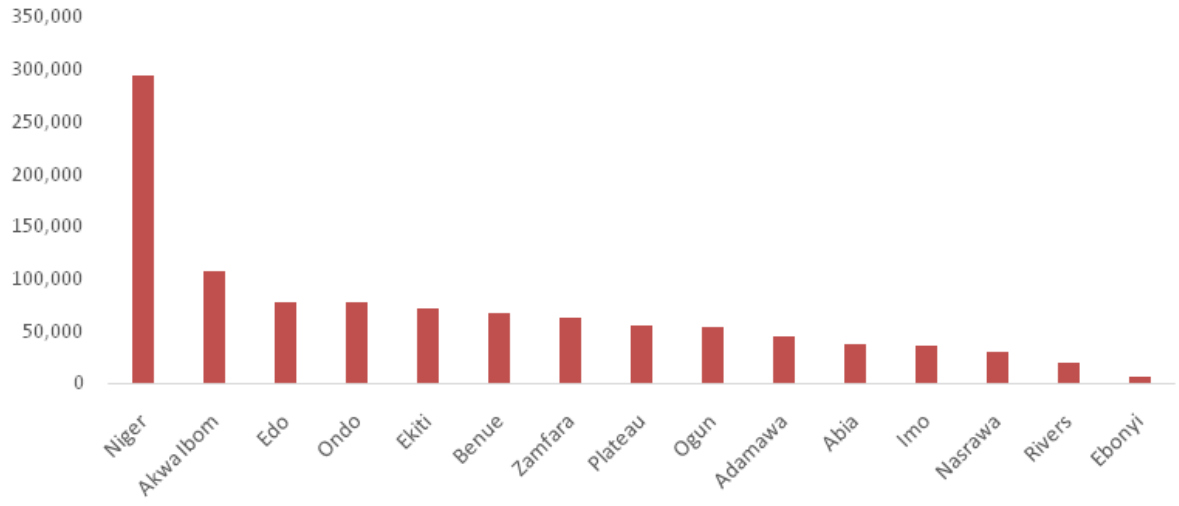


Figure 11.5: 2018 Rabbit population in Nigeria
Source: Federal Department of Animal Production and Husbandry Services, FMARD, Abuja

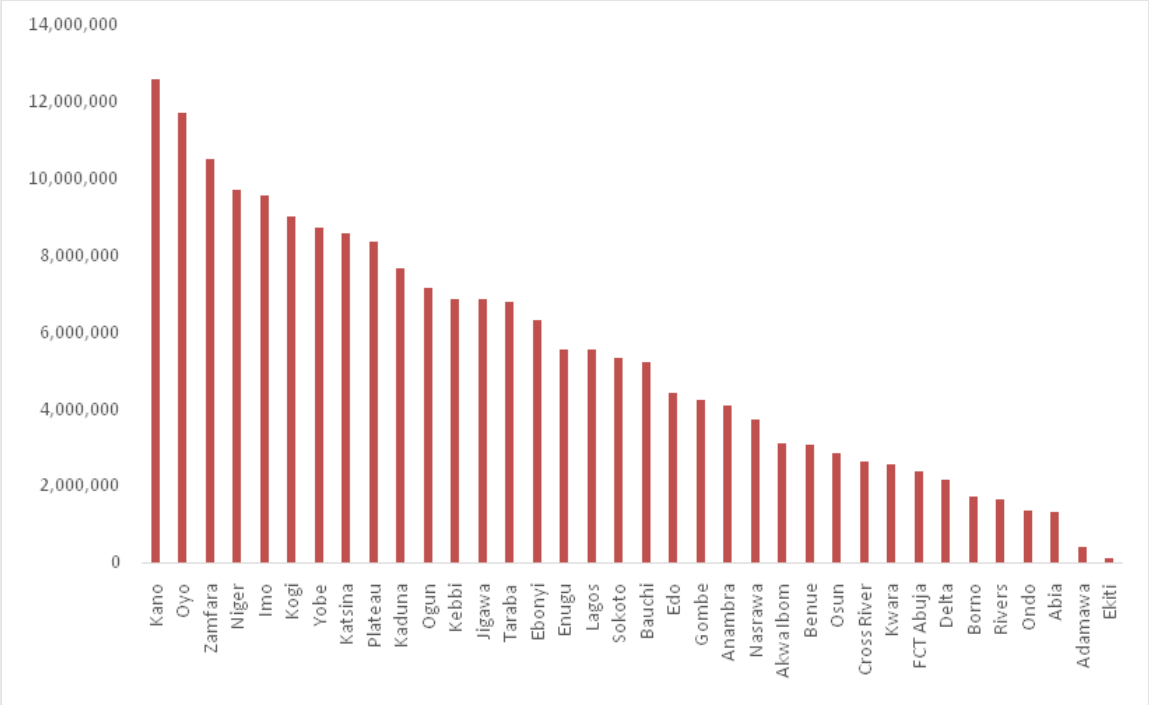


Figure 11.6: 2018 Chicken population in Nigeria
Source: Federal Department of Animal Production and Husbandry Services, FMARD, Abuja

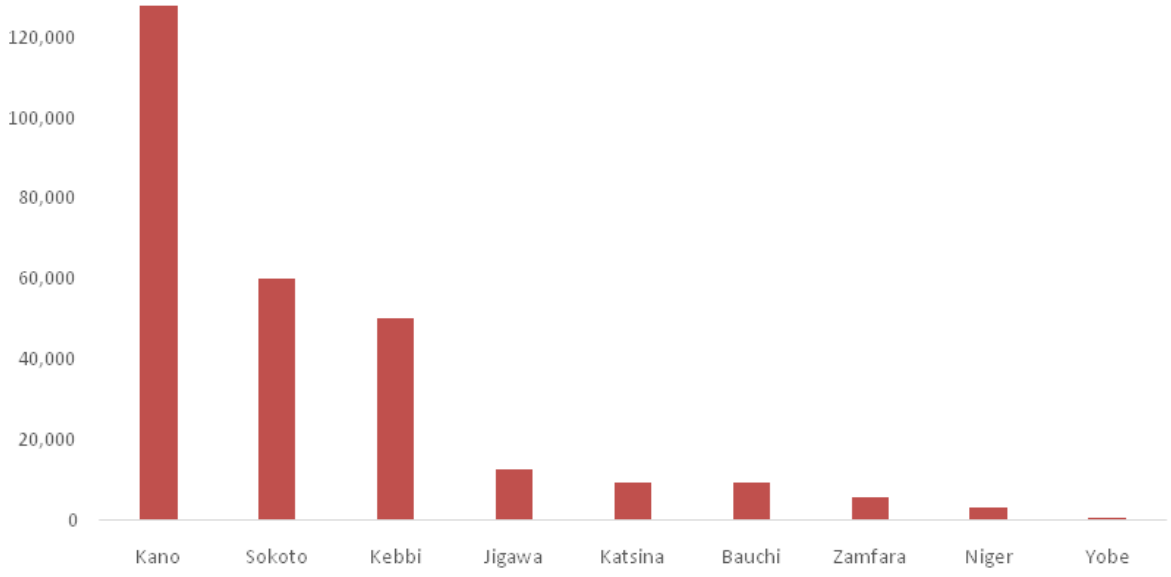


Figure 11.7: 2018 Camel population in Nigeria
Source: Federal Department of Animal Production and Husbandry Services, FMARD, Abuja

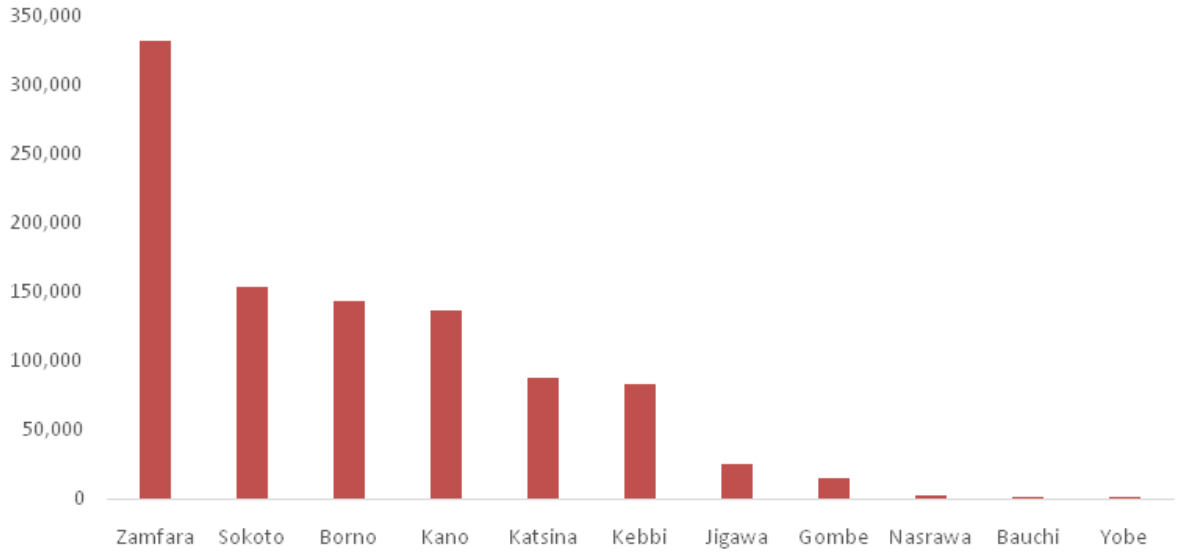


Figure 11.8: 2018 Donkey population in Nigeria
Source: Federal Department of Animal Production and Husbandry Services, FMARD, Abuja

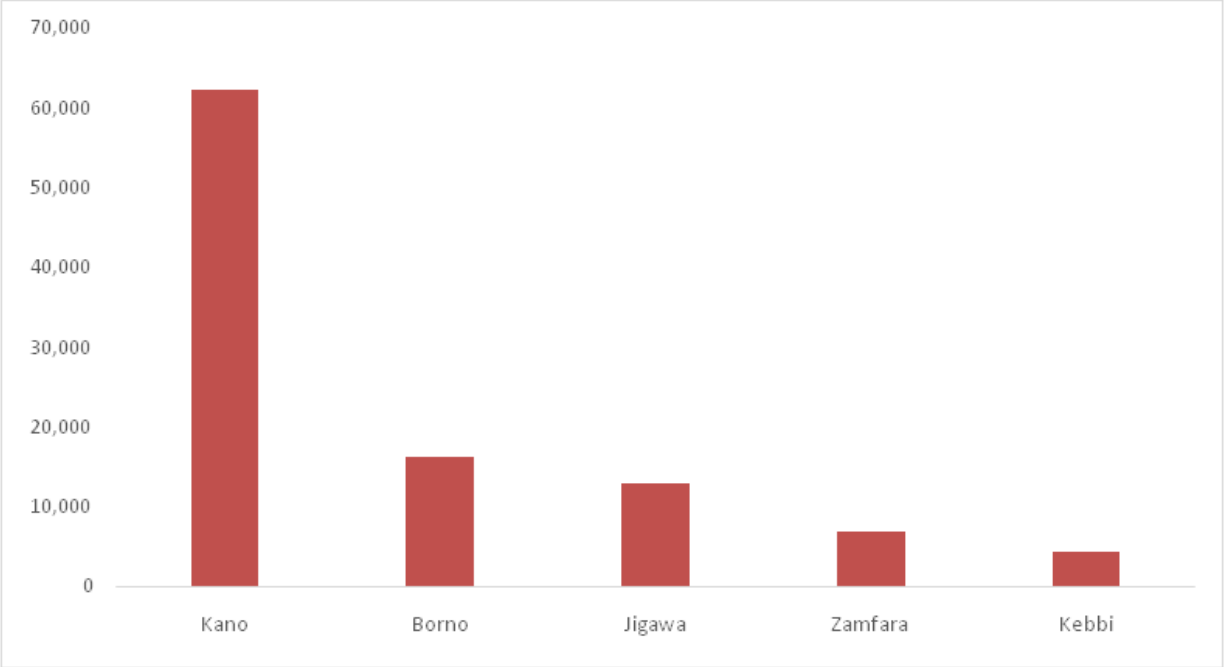


Figure 11.9: 2018 Horse population in Nigeria
Source: Federal Department of Animal Production and Husbandry Services, FMARD, Abuja

Table 11.1: 2018 Livestock Population in Nigeria

State	Cattle	Goat	Sheep	Pig	Rabbit	Chicken	Camel	Donkey	Horse
Abia		479,108	212,882	409,436	36,631	1,319,991			
Adamawa	1,202,637	1,810,716	1,607,426	714,459	43,986	395,989			
AkwaIbom		2,225,754	946,837	487,435	107,442	3,089,103			
Anambra		498,371	153,884			4,068,915			
Bauchi	570,233	418,714	242,251			5,197,416	9,465	1,448	
Bayelsa	NA	NA	NA	NA	NA	NA			
Benue	129,113	4,438,414	817,117	1,105,837	67,462	3,056,041			
Borno	1,818,733	2,641,220	2,591,221			1,703,835		143,563	16,117
Cross River		243,346	129,572	41,692		2,624,833			
Delta	29,765	2,040,441	224,318	39,504	5,322	2,168,786			
Ebonyi	14,207	1,089,289	212,901		77,499	6,290,041			
Edo	131,164	1,312,823	608,089	21,243	70,966	4,425,925			
Ekiti	34,686	1,053,951	70,426	132,928		116,417			
Enugu	2,486	1,527,607	156,225	81,973		5,554,986			
FCT Abuja	32,161	1,006,704	196,000	30,126		2,358,753			
Gombe	578,960	1,329,116	691,827	110,372	35,362	4,240,172		14226	
Imo		1,637,886	86,178	264,774		9,534,019			
Jigawa	2,354,153	5,989,918	5,320,552			6,859,671	12,837	25,110	12,861
Kaduna	702,410	2,015,076	1,674,320	694,428		7,672,818			
Kano	2,153,796	4,196,730	3,934,854			12,591,498	127,976	135,826	62,240
Katsina	585,504	6,151,776	5,355,028			8,573,083	9,571	87,150	
Kebbi	984,885	3,002,460	2,114,068	98,178		6,861,437	50,433	82,787	4,193
Kogi	143,150	2,621,824	1,160,106	62,318		9,020,285			
Kwara	1,035,877	1,962,154	399,317			2,563,888			
Lagos		12,335		15,175	30,199	5,553,914			
Nasrawa	1,406,660	1,770,160	1,024,609	312,551	293,435	3,706,663		2,375	
Niger	237,365	1,626,084	760,444	36,960	53,993	9,705,895	3,267		
Ogun	14,816	1,084,121	194,920	86,205	77,239	7,152,688			
Ondo	36,104	2,523,535	158,697	955,581		1,336,620			
Osun		4,065,166	651,687	195,024		2,842,837			
Oyo	61,403	3,286,285	692,030	255,679	54,728	11,686,522			
Plateau	766,286	4,158,895	2,254,574	1,725,568	18,710	8,346,596			
Rivers		1,937,308	31,637			1,630,054			
Sokoto	421,063	1,143,626	1,283,317			5,307,307	60,286	153,504	
Taraba	318,457	1,103,081	1,113,475	324,323		6,785,345			
Yobe	1,062,634	2,128,658	1,410,650	65,515	61,613	8,726,537	501	1,103	
Zamfara	3,402,881	5,457,005	7,135,633			10,509,601	5,619	331,310	6,912
Total	**20,231,589**	**79,989,657**	**45,617,072**	**8,267,284**	**1,034,587**	**193,578,481**	**279,955**	**978,402**	**10,2323**

Source: Federal Department of Animal Production and Husbandry Services, FMARD, Abuja

Tables 11 .2 and 11 .3 showed the population of livestock in commercial farms and smallholding backyard farms, respectively.

Table 11.2: Livestock Population of Commercial Farms in Nigeria

	Livestock Type	Total Population	Population of Commercial Stock	No. of Cmmercial Farms and Average Holdings	
				No of Farms	Average Herd or Flock Size
North East					
Adamawa	Cattle	210,000		16	1,400
	sheep	410,000		3	120
	Poultry	100,000		25	4,000
Bauchi	Cattle	2,000,000		6,660	300
	sheep	6,000,000		6000	500;
	Goat	4,000,000		8,000	500
	Poultry	3,000,000		3,000	1,000
Gombe	Cattle	14,448		258	56
	sheep	3,552		96	37
	Goat	5,247		72	41
	Poultry	269		1,054	1,580
North West					
Sokoto	cattle			24	25
	sheep			320	120
	goat			120	75
	poultry			50	5,000-10,000
North Central					
FCT	Poultry	78,000		52	100
	cattle	300		15	20
Nasarawa	Cattle	1,406,500		100	15
	sheep and goat	586,276		50	30
	Poultry	1,023,160		100	1,000
Niger	Cattle	150,000		150;	20-150
	sheep and goat	5,000		80	10-50: 20,000
	Poultry	50,000		120	
Plateau	Cattle			NA	NA
	Poultry			100	100-40,000
Taraba	Cattle	5,774,662		40	-
	sheep			-	15 and above
	goat			-	-
	Poultry			20	1000 and above

Table 11.3: Livestock Population and Commercial Farms in Nigeria

	Livestock Type	Total Poulation	Population of Commercial Stock	No. of Commercial Farms and Average Holdings	
				No of Farms	Average Herd or Flock Size
South West					
Ekiti	Poultry	50,000		50	1,000
	Cattle	300		15	20
	Goat	200		10	20
	Sheep	150		10	15
Ondo	Poultry	260,770		109	2,392
	Piggery	5,314		73	73
	Sheep and goat	4,590		11	417
	Cattle	1,802		10	180
Osun	Cattle	12,000		15	800
	Sheep and goat;	1,000		10	100
	Poultry	658,000		329	2,000
	Pig	6,000		3	2,000
Oyo	Cattle	949,000		4,745	200
	Sheep and goat	715,000		1,100	650
	Chicken	80,000,000		3,845	20,807
	Pig	2.5million		2,070	1,207
South East					
Abia	Poultry	1,250,000		250	5,000
	Pig	150,000		500	300
	Poultry	3,192,000		570	5,600
Anambra	Poultry	6,759,365		59	150,000
	Cattle	400		34	100
Enugu	Poultry	50,000,000		25,000	500-2,000
	Piggery	1,000,000		5,000	50-200
Ebonyi	Piggery	5,000		5	50-100
	Poultry	200,000		15	2,000-10,000
	Bee	n.a		3	n.a
	Fishery	10,000		4	1,000-5,000
South South					
Bayelsa	Poultry	25,000		7	1,000
	cattle	256		2	102
	swine	182		5	25
	sheep/ave	73		1	73
Edo	Cattle	1,500		75	20
	Sheep and goats	740,000		>3,000	10
	Pigs	4,800		>500	10
	Poultry	38,000		>3,000	12

Table 11 .4: Livestock Population and Small Holding Farms in Nigeria

	Livestock Type	Total Population	Population of Commercial Stock	No of Cmmercial Farms and Average Holdings	
				No of Farms	Average Herd or Flock Size
North East					
Adamawa	Cattle	3.291million		138,000	25
	Sheep	2.3045milion		310,000	5
	Pigs	0.511million		55,000	14
	Poultry	3.414million		600,000	2
	Goats	2.688million		600,000	4
Bauchi	Cattle	2,000,000		1,000,000	2
	Sheep	3,000,000		1,500,000	2
	Goat	3,000,000		1,500,000	2
	Poultry and	6,000,000		3,000,000	20
	Rabbit	3,000,000		3,000,000	
Gombe	Cattle	21,200		2,120	10
	Sheep and	46,332		3,641	12
	Goats	51,815		4,710	11
	Pigs	705,150		1,567	450
	Poultry	769		17	10
North West					
Sokoto	Cattle	Sea attached		2,500	5-10
	Sheep	70% of the state		3,500	15-20
	Goat			4,000	20
	Poultry			750	500-1000
North Central					
Benue	Cattle	118,701		5,935	20
	Sheep and goat	6,292,239		786,530	8
	Swine	2,109,319		210,932	10

	Poultry	17,154,175		85,971	200
FCT	Poultry	132,000		264	500
	Cattle	500		18	10
	(snail,grass-cutters, rabbit)			2	50
Kwara	Goat	6,325,211			
	Sheep	1,802,022			
	Cattle	9,202,084			
	Poultry	20,072,121			
	Micro livestock	400,7209			
Nasarawa	Cattle	2,015		157	11
	Sheep and goat	1,758,827		626	15
	Poultry	341,055		100	25
Niger	Cattle	2m-4m		10,000	10-50
	Sheep	1m-3m		8,000	10-30
	Goat	1m-3m		8,000	10-30
	Poultry	5m-8m		15,000	50-2,000
	Rabbit	250,000		2,000	5-20
	Pigs	10,000		1,000	10-30
Plateau	Cattle	1.3m		23,000	11.50
	Sheep	1.2m		2,150	11.30
	Goats	1.8m		3,400	12.20
	Poultry	3.5m		1,150	50-1,000
	Swine	0.3m		2,750	4.75
Taraba	Cattle	5,774,662			5-15
	Sheep Goats	3,559,845 3,784,656			5-15 5-15
	Poultry	8,006,242			50-1000
	Pigs	3,311,504			5-15
	Donkeys	330,325			2-5

Table 11.5: Livestock Population and Commercial Farms in Nigeria

	Livestock Type	Total Population	Population of Commercial Stock	No. of Cmmercial Farms and Average Holdings	
				No of Farms	Average Herd or Flock Size
South West					
Ekiti	Poultry	125,000		500	250
	Goat	1,800		120	15
	Pig	750		50	15
	Sheep	700		70	10
	Cattle	1,300		100	13
Lagos					
Ogun					
Ondo	Poultry	708,479		1,464	484
	Piggery	24,222		1,425	17
	Sheep and goat	243,341		15,209	16
	Cattle	25,912		2,159	12
	Rabbitary	5,625		296	19
Osun	Cattle			150,000	2,000
	Sheep and goats			1,250,000	15
	Poultry			400,000	10
Oyo	Cattle	3,060		255	12
	Sheep and	64million		3.2million	20
	Goat	250,000			25
	Chicken; pig	9,460		10,000 430	22
South East					
Abia	Poultry	54,000		720;	75
	Pig	41,600		800;	52
	Sheep/Goat	366,000		1,800	20
Enugu	Poultry	Millions		Most house holders	300
	Goast	Millions		Most house holders	6
	Sheep	Millions		Most house holders	3
Ebonyi	Poultry	12,000,000		60,000	50-200

	piggery	500,000		25,000	5-25
	Sheep and goat	100,000		10,000	2-10
	Cattle	500		100	2-5
Imo	Poultry	4.5m		100	50-5000
	Sheep	200		4	20-50
	Goat	250		5	20-60
	Piggery	25		3	5-10
South South					
AkwaIbom					
Bayelsa	Poultry	2,960		63	47
	Rabbit	72		4	10
	Sheep and goat	574		10	52
	Swine	103		7	13
Edo	Pigs	13,500		>12	1,000
	Poultry	13,500		>30	2,700
Rivers	Cattle	800;		20	5
	Sheep and goat	1,500,000		400	10
	Pig	1,000,000		100	20
	Chicken	1,825,000		2,500	250

Livestock Pests and Disesases

Cattle

Figure 11.10 and Table 11.6 show pests and diseases of cattle as observable in 2018. Contagious Bovine Pleuropneumonia (CBPP) was reported in six (6) States, all in the Northern part of Nigeria. The States where the infectious disease of lungs of cattle (CBPP) was reported were Adamawa, Anambra, Nasarawa and Taraba. Foot and mouth disease was also reported among cattle populations in many States (10 States) of Nigeria. Foot and mouth disease (FMD) is a severe, highly contagious viral disease of cattle and swine. It also affects sheep and goats. It affects cattle in Adamawa, Bayelsa, Gombe, Katsina, Osun, Oyo, Rivers, Sokoto and Taraba States. Other diseases and pests that affect cattle in Nigeria in 2018 were babeiosis, fasciolasis, foot rot, helmithiasis, rinder pest, tick infestation and tuberculosis.

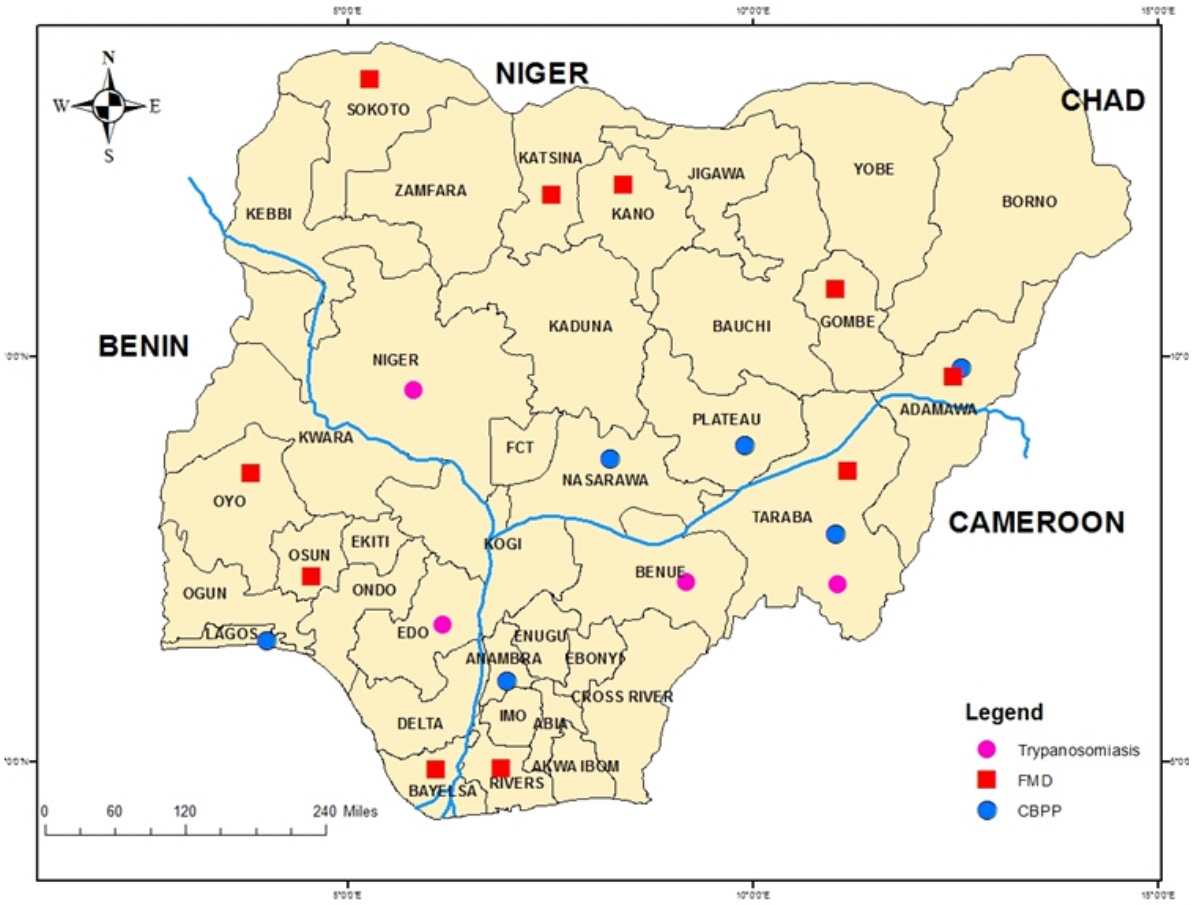


Figure 11.10: Occurrence of Cattle Diseases in Nigeria

Table 11.6: Livestock Pest and Disease (Cattle)

	Disease or Pest	Location of incidences	Total stock of Animal	Number of Animal Affected	%	No Vaccinated or Treated	Number Culled due to infection	Remarks
North East								
Adamawa	CBPP;				40;	100,000;		
	Helminthiasis;				10;	100,000;		
	FMD				9	80,000;		
Gombe	CBPP,	Balanga;	78;	12;		77,	1;	
	PMD	Shomgom	29	10		29	0	
North West								
Kano	Babeiosis	Abbattoir;		573;	NA;			
	Tuberculosis;	Statewide		10,	NA; 1			
	FMD;			906;				
	Helminthiasis			137				
Katsina	FMD;	Safana;	667;	102				
		Kabomo	64					
Sokoto	FMD; Rinderpest	Gadallela;						
		Tangaze						
North Central								
Benue	Helmiathosis; Tuberculosis; Trypanosomiasis	Across the State	Numerous	Numerous	Low		Few	
Nasarawa	CBPP	All over the state						
Niger	Helmanthesis;							
	Fasciolasis; Trypanosomiasis							
Plateau	Ticks;	17 LGAs	17m	4m;		1,273,989		Nil;
	CBPP			1,200				yes; 25,000 closed
Taraba	CBPP;	Sardauna,Bal	>80,000;	428;	>500;	10,000;	>5,000	Drugs were supplied
	FMD;	i; Jalingo,	>30,000;	>12,000;	>200;	>2,000;		
	Trypanosomiasis	All LGAs;	>110,00	>50,000	>1000	>43,000		

Table 11 .6(contd): Livestock Pest and Disease (Cattle)

	Disease or Pest	Location of incidences	Total stock of Animal	Number of Animal Affected	%	No Vaccinated or Treated	Number Culled due to infection	Remarks
South West								
Lagos	CBPP; Newcasle							
Osun	Tuberculosis;	Iwo;	1,000;	5;	0.3;	1,000;	5;	
	FMD	Ede	75	10	6.6	75	8	
Oyo	FMD	Ogbomoso;		About 2,000	25		500	
		Oyo						
South East								
Anambra	CBPP	Nimo	30	5	0	30		
South South								
Bayelsa	Dermatophilosis;	Yen;	150;	10;	-	50;	-	
	FMD;	Elereng;	18;	2;	11	18;	2;	
	Tick infestation	Yen	150	108	-	150	-	
Edo	Trypanosomiasis;	Endemic	250,000;	1.3m;		NA	23;	NA
	Foot rot		250,000	1.3m			20	
Rivers	FMD;							
	Helminthiasis;							
	Bacterial infection							

Diseases of Sheep, Goats and Poultry

Pests and diseases that affected sheep, goats, poultry and swine were presented on Tables 11.7 and 11.8. Peste des petits ruminants (PPR) affected sheep and goats in all the agro-ecological zones in Nigeria. The disease was reported to affect sheep and goats in 16 States:Abia, Adamawa, Anambra, Benue, Ebonyi, Edo, Gombe, Imo, Kano, Katsina, Nasarawa, Niger, Osun, Oyo, Plateau, Taraba and Rivers State. Figure 11.11 shows the estimated loss of sheep and goats to PPR disease in 2018. Other pests and disease that affected sheep and goats in 2018 were fleas, foot rot, helminth worms and mange.

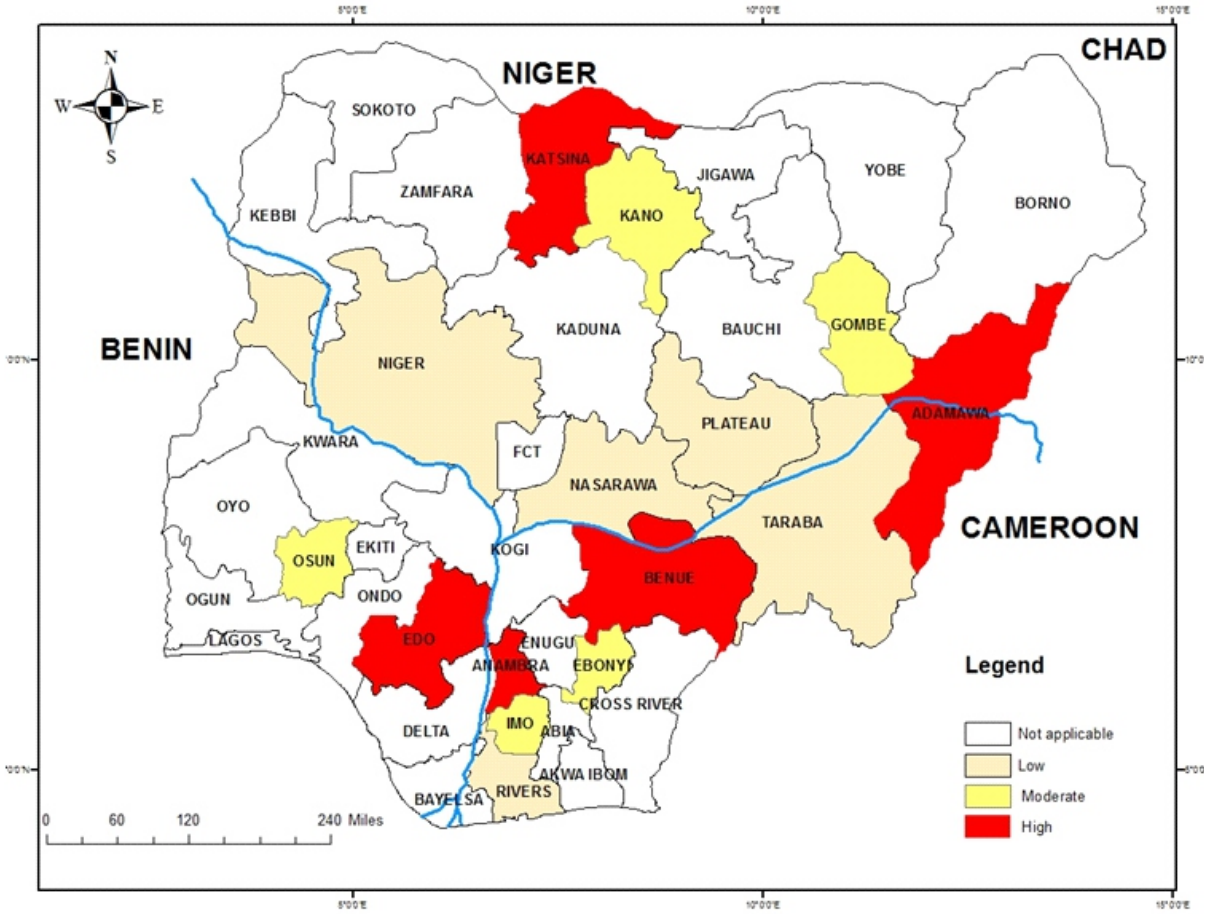


Figure 11.11: Estimated loss of sheep and goats to peste des petitis ruminant disease in 2018

Newcastle disease (NCD) affected poultry in nearly all the agro-ecological zone of Nigeria. The disease was reported to had affected poultry in Adamawa (North East), Kaduna and Kebbi (North West), Kwara and Niger (North Central), Ondo and Osun (South West) and Rivers State (South South). Other diseases that affected poultry include gumboro (infectious bursal diseases), coccidiosis and chicken pox. Avian influenza affected poultry in Nigeria in 2017. A new strain of the disease, popularly known as bird flu, entered Nigeria in January 2017 and spread to 26 States and the Federal Capital Territory, with over 3,500,000 birds affected. Nigeria's outbreak of highly pathogenic H5N1 avian influenza, initially confirmed at a single farm on 8 February 2017, spread to several parts of the

country. Outbreak was detected on more than 130 farms in 11 of the country's 36 States. Control measures on farms had included culling, disinfection and safe disposal of carcasses.

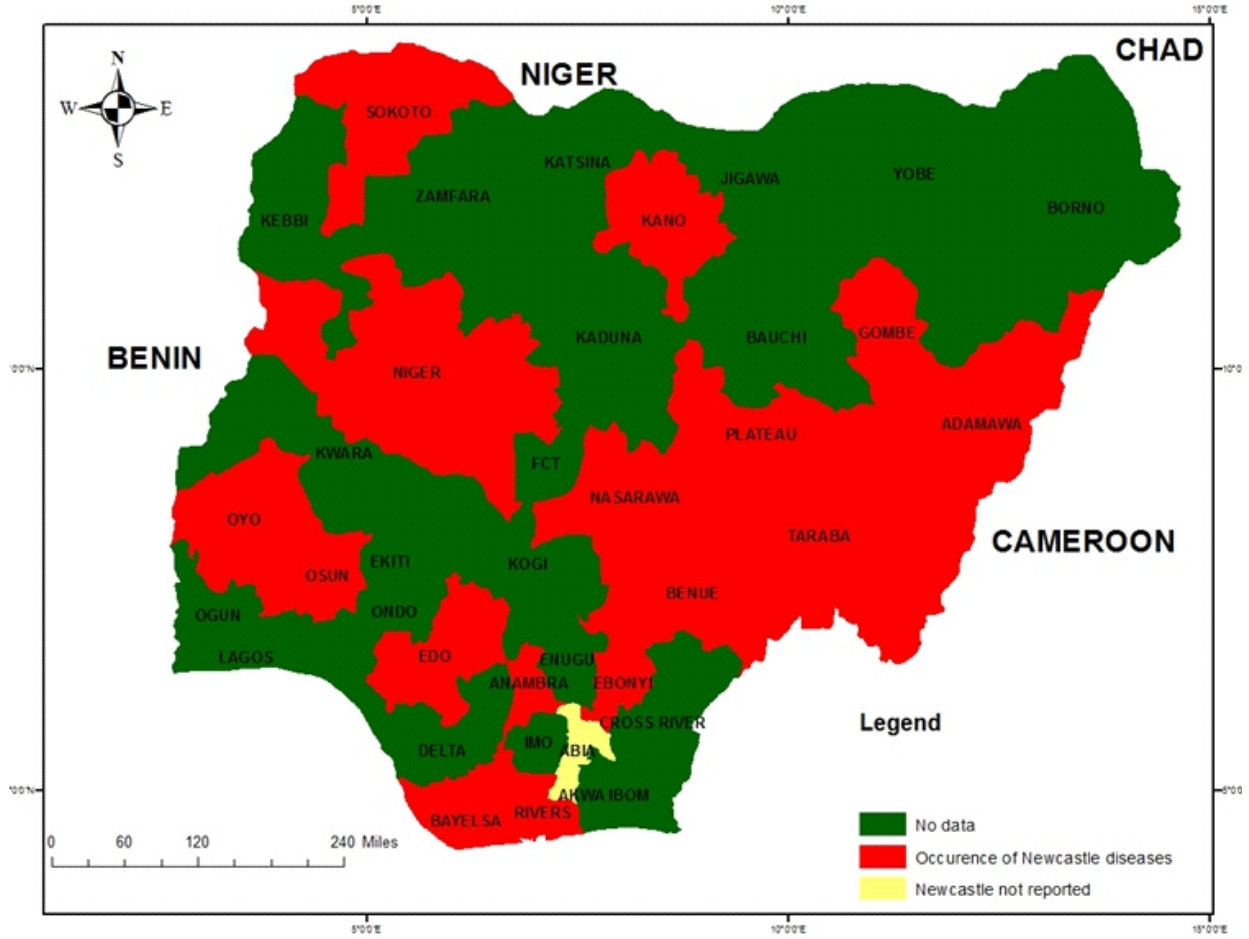


Figure 11.12: Occurrence of Newcastle disease in 2018

Table 11 .8: Livestock Pest and Disease(Sheep, Goats and Poultry)

	Disease or Pest	Location of incidences	Total stock of Animal	Number of Animal Affected	%	No Vaccinated or Treated	Number Culled due to infection	REMARKS
North East								
Adamawa	**Sheep/goat** PPR;	Numan		250,000;	25;			
	Helminthiasis			280,000	10			
	Poultry NCD;				30,			
	Fowl pox				20			
	Swine African swine				50			
Gombe	**Sheep and goat** PPR	Akilo	39	10	10	35	4	Vaccines
	Poultry NCD	Gombe	2,500	1,500	4.8	2,380	120	Disinfectant
	Swine African swine fever	Akko	50	11	22	39	6	
North West								
Kano	**Sheep and goat** Helminthes;	All across the State	NA	172,199;	3;			
	Mange;	All across the State		3 flocks;	0.5;			
	PPR	All across the State		19,300;	30;			
	Poultry NCD			27,007	10			
Katsina	**Sheep and goat** PPR	Batsari;	1,500;	223;	5;	5,230;		
		Jibia;	332;	721;	11;	6,701;		
		Rimaye	3,342	60	69	3,200		

Sokoto	**Sheep and goat** NCD	Gudu						
	Poultry Gumboro	Sokoto						
North Central								
Benue	**Sheep and goat** PPR;	Across the	High	Numerous	High	Numerous	Few	
	Helminthiasis;	State			low			
	Ectoparasite **Poultry** NCD;	Across the	High;	Numerous;	low High	Numerous;		
	Gumboro;	state	high;	numerous;	High	Numerous;		
	Avian influenza		350	350	350	Nil		
Nasarawa	**Sheep and goat** PPR	All over the state						
	Poultry NCD; Gumboro							
Niger	**Sheep and goat** PPR	Minna	5,300	2,100		3,500		
	Poultry NCD;	Minna;	50,000;	25,000;		49,000;		
	IBD	Suleja	27,000	18,000		26,000		
Plateau	**Sheep and goat** PPR;	Statewide	3.1m	60,000;		59,879;		
	Fleas;			1m;		600,000;		
	Helminth			2.5m		1.2m		
	Poultry IBD;		7m	2,000;	0.02			
	Mareks;			NA				
	NCD;			40,000;				
	Avian influenza		300,000	NA				

	Swine African swine fever;			25,000;		10,		
	Mange;			125,000;		500;		
	Helminth			25,000		NA		
Taraba	**Sheep and goat** PPR;	Statewide	>55,000;	>23,000;		No reliable data	-	
	Helminthiasis		>18,000;	>5,000;				
	Poultry NCD;		>153,000;	83,000;		62,000;		
	IBD;		85, 000;	52,000;		30,000;	5,500	
	Coccidiosis		33,000	21,000		18,000		

Table 11 .9: Livestock Pest and Disease(Sheep, goats and poultry)

	Disease or Pest	Location of incidences	Total stock of Animal	Number of Animal Affected	% Mortality	No Vaccinated or Treated	Number Culled due to infection	Remarks
South West								
Osun	**Sheep and goats** PPR;	Ibokun;	40;	15;	12.5;	40;	10; -	
	Mange	Oyan	120	48	4.16	80		
	Poultry NCD;	Ilobu;	20,000;	8,300;	35.0;	20,000;		
	Fowlpox	Ifetedo	25,000	3,000	0.2	25,000		
	Swine Mange;	Ilesa;	200;	20;		20;		
	Enteritis	Ejigbo	300	10		10		
Oyo	**Sheep/Goat** PPR	All over the state	Over 62 million	Over 5million	60		Over 3million	
	Poultry NCD	Ibadan oyo	100,000	90,000	55	Over 70,000	About 50,000	
	Gomboro	Ibadan	3,000	About 1,000	33.3		1,000	

South East								
Abia	PPR	IkwuanoOhafia Arochukwu						Vaccination
Anambra	Sheep and goat Mange;	Njikoka;	3;	n.a;	100	134	5	
	PPR	Awka-south;	5;	131	25	134	134	
	Poultry NCD;	Engwu-ukwu;	134	200;	100;	200;	n.a;	
	Fowl pox;	Ebenebe	200;	15;	0;	250;	15;	
	infectiouscoryxa	Awka; awka	250;	250	0	250	5	
	Swine Tryps;	Akpo;	30;	30;	17;	30;	n.a;	
	erysipelas	Isiagu	25	4	0	25	4	
Ebonyi	**Sheep and goat** PPR	Afeckpo;	100;	20;	10;	80;		
		onueke;	80;	15;	5;	65;		
		abakaliki	120	20	15	100		
	Poultry NCD;	Abakaliki;	5,000;	100;	20;	50;		
	IBD;	Abakaliki;Ab	5,000;	80;	5;	30;		
	Coccidiosis	Akaliki	5,000	80	5	NA		
Imo	**Sheep and goats** PPR;	Onwest	50	5;	10;	50;	5;	
	Babeosis;			5	10	50	5	
	Poultry Avian influenza; fowl	Obowo	200;	200;	50;	200;		
	Typhoid		120	120	50	120		

South South								
Bayelsa	**Sheep and Goat** Foot rot;	Elebele;	85;	32;		32;		
		Swali;	42;	18;		18;		
		Nebugu	10	3		10		
	Mange (ORF);	Elebe;	2,500;	All;	6;		150;	
	Myiasis	Elebele	2,500	all	8.4		210	
	`**Poultry** Coccudiosis;	Agbura;	103;	103;	61;	103;	40;	
		Azikoko	45	45	6	45	3	
Edo	**Sheep and goats** Mange;	Statewide	40,000;	10,000;	30;	7,800;		
	PPR;		40,000;	12,000;	32;	11,300;		
	Helminths		40,000	5,700	25	5,700		
	Poultry Coccidiosis;		130,000;	65,000;	30;	65,000;		
	NCD;		130,000;	65,000;	30;	65,000;		
	Fowl pox		130,000	35,000	30	35,000		

Livestock Inputs Procured and Distributed in 2017 and 2018

Table 11.10 showed the comparison between the livestock production inputs procured and distributed among the States of Nigeria. Records of livestock inputs from 14 States of the country were presented. Drugs and vaccines were prominent among the inputs procured and distributed in 2017 and 2018. Contagious bovine pleuropneumonia (CBPP), peste des petitis ruminants (PPR), Newcastle disease vaccine (NCDV), infectious bursal disease vaccine (IBDV), fowl pox vaccines, anti-rabies vaccines were purchased and distributed by Adamawa, Gombe, Taraba, Osun and Bayelsa State. Drugs for fowl cholera, fowl typhoid and drugs for other livestock diseases were purchased by Kaduna, Bauchi and Taraba States.

Investments were made into the procurements of various livestock feed ingredients, equipment and the actual animals in terms of day old chicks, yearling bulls, turkey poults, weaner stocks of rabbits and pigs as well as stocks of sheep and goats. It is of note that the exact quantity of livestock inputs procured and distributed in Bayelsa, Benue, Enugu, Kaduna and Oyo State were not provided by relevant authorities.

Table 11 .10: Livestock Production Inputs in 2017 and 2018

State	Type of inputs	Quantity procured		Quantity Distributed	
		2017	2018	2017	2018
North West					
Kaduna	Vaccines; drugs; equipment				
Sokoto	Wheat offal	500 bags	-	500 bags	-
	Cowpea haulms	300 bags	-	300 bags	-
	Salt lick	20 packets	-	20 packets	-
North East					
Adamawa	CBPP Vaccines	177,986	-	177,986	-
	PPR Vaccines	96,480	-	96,480	-
	BQ	31,770	-	31,770	-
	HS	297	-	297	-
	Canine distemper	297	-	297	-
	Anti-Rabies	1,008	-	1,008	-
	Vaccines	107,426	-	107,426	-
	NCDV	67,204	-	67,204	-
	IBDV	7,970	-	7,970	-
	Fowl pox vaccines	29	-	29	-
	Fowl Cholera	307	-	307	-
	Fowl typhoid				
Bauchi	Cotton seed cakes	500 bags	600 bags	500 bags	600 bags
	Wheat offal	600 bags	00 bags	600 bags	700 bags
	Potash	200 bags	300 bags	200 bags	300 bags
	Assorted drugs	400 bags	500 bags	400 bags	500 bags

Gombe	CBPP Vaccines	60,000	-	60,000	-
	PPR Vaccines	300,000	-	300,000	-
	Anti-Rabies Vaccines	10,000 110,000	- -	10,000 110,000	- -
	Authentic syringe	1,000 litres	-	1,000 litres	-
	Diluent	6	-	6	-
	Vaccine carriers				
North Central					
Benue	Sprayers Disinfectants Promotional materials Personal protectors Working equipment	The production inputs are required for control of avian influenza			
FCT	Poultry feeds	-	400 bags	-	400 bags
	Electric debeaker	15	-	15	-
	Battery cages	15	-	15	-
	Pullets	-	2,000	-	2,000
	Drinkers	-	200	-	200
	Feeders	-	200	-	200
Taraba	Veterinary drugs	-	3,000 bottles	-	3,000 bottles
	Vaccines	-	100,000	-	100,000
	Equipment	-	doses 500 pieces	-	doses 500 pieces
South West					
Ondo	Broiler chicks	-	2,000	-	2,000
	Turkey poults	-	150	-	150
	Pigs (weaners) Rabbits (weaners)	13 -	21 45	13 -	21 45
Osun	Day old chicks;	7,200;	230,000	7,200;	230,000
	point of lay;	750;	500	750;	500
	feeds;	237.6 tons;	759 tons	237.6 tons;	759 tons
	Vaccines	288,000doses	920,000 doses	288,000doses	920,000 dose
Oyo	Day old chicks				
	Yearling bulls				
South East					
Enugu	Poultry				
	Piggery				
	Sheep and goats				
Imo	Day old chicks	130,000	160,000	130,000	160,000
	Pullet grower	130,000	160,000	130,000	160,000
	PKC	1,500,00 bags	2,500,000 bags	1,500,00 bags	2,500,000 bags

South South					
AkwaIbom	Day old chicks	312,000	600,000	312,000	600,000
Bayelsa	Cattle;				
	Sheep/Goats;				
	Poultry;				
	Rabbits;				
	Vaccines				

Table 11.11 depicted the recorded cases of farmers-pastoralists conflict and the extent of damage caused. The reports for this phenomenon were documented for 16 State that provided information for the 2018 Agricultural Performance Survey. The 16 States cut across all the agro-ecological zones of the country. Various numbers of livestock, properties and human life were reportedly lost during the attacks emanating from the farmers-pastoralists conflicts.

Information on cattle rustling and the extent of losses caused in Nigeria during 2018 agricultural season was shown in Table 11.12. Cattle rustling was reported in all the agro-ecological zones with the exception of the South South Zone. The phenomenon was reported by 11 States with various level of occurrence. In Sokoto State, 1,500 houses were reportedly burnt due to the activities of cattle rustlers which also claimed some 300 people. Occasional cattle rustling attack also occur in Adamawa, Anambra, Enugu, FCT, Gombe and Osun States. Taraba State however reported very frequent occurrences of cattle rustling.

Kidnapping in and around farms also had very high tendency towards disrupting agricultural activities. Table 11.13 provided information on kidnapping and the extent of losses caused.

Table 11 .11: Information on conflict between pastoralist and farmers and the extent of damage caused

Agro-ecological Zone	Frequency of occurrence	Location	Number of livestock lost	Properties lost	Number of human life lost
North East					
Adamawa	Seasonal	Numan LGA; Lamorde LGA; Danga LGA; Mayo Belwa LGA	120,000; 10,000; 20,000; 5,000		
Bauchi	20-30 cases	Udubo bauchi	150		
Gombe	Every harvest season	Yamaltu Deba	50	Farm produce	1
North West					
Sokoto	Minimal	Rabahturelakabba	150 head in catles	30 houses	2
North Central					
Benue	Frequent	Buruku, Agatu, Logo, Kwande, Guma, Gwer West, Ukum	Numerous	Numerous	Numerous
FCT	Irregular; irregular	Karshi, ;Ribochi			
Nasarawa	Nasarawa awe keana donna				
Taraba	Frequent occurrence	Sadauna local gov't; Lau; Yarro; Ardo Kola; Takum	>500; >100; >10; >1`00; Unknown	>1,000; >200; >20; >100; >20	800; >100; >10; >50; >10
South West					
Ekiti	Very frequent	Ago aduloju; Iyemero; Orin; Oke-Ako; Aramoko	4; NA; NA; NA; 15	Crops	

Ondo	Frequent	Ireseakure, Iluaboakure, AjowaAkoko, IkaramuAkoko			
Osun	Highly prevalent	All across the State			
Oyo	More frequent during the dry season	Oyo North; Oke - Ogun; Eruwa; Igangan	Up to 200-300	About 40 houses	Up to 100
South East					
Anambra	Infrequent	Eziaguluotu Omasi; ufuma aguluezechukwu umunze	48	Crops	
Enugu	Three cases every week	Ezeagu; nkanu east; uzo-uwani nkanu-west, udenu udi; igboetiti, isi - uzo		Cassava maize, rice	
Ebonyi	Irregular	Iboko, akaeze ishiagu	Unknown	Two hours; no record; no record	2; n.a; n.a
Imo	2-3 times in a year	Ohaji/Egbema, Owerri-west and Okigwe LGAs	NA	About 5-7 hectares of land with crops damaged	About 6 women killed
South South					
Edo	Often	Across the State			

Table 11 .12: Information on cattle rustling and the extent of losses caused

Agro-ecological Zone	Frequency of occurrence	Location	Number of livestock lost	Properties lost	Number of human life lost
North East					
Adamawa	Occasionally	Across the State	Not available		
Bauchi	10-15 cases	Gubi, K/Madak	3,000		
Gombe	Occasionally	Nafada Billiri Kwami	40 20 10		4; 2; 1
North West					
Sokoto	High	S/Birni, Rabah, Gadu, Isa	5,000 heads of cattle in all	1,500 (houses)	300

North Central					
Benue	Intermittent	Katsina Ala	Unknown	Unknown	Unknown
FCT	Irregular	Abaji (agyana)	165 cattle (2017); 25 cattle (2018)		
Taraba	Frequent	Jalingo; Ardo kola	>500; >100		
South West					
Osun	Not common		5-8 cattle		
Oyo	Occur mostly in dry season	Igangan; Igbo - Ora	About 50		
South East					
Anambra	Occasional	Enugwu-ukwu	48		
Enugu	Occasional				
South South					
Cross River	Rarely	Edukparo; Ujep			

Table 11 .13: Information on kidnapping and the extent of losses caused

Agro-ecological Zone	Frequency of occurrence	Location	Number of livestock lost	Properties lost	Number of human life lost
North East					
Adamawa	Not common in the state		Not available	Not available	Not available
Gombe	Rarely				
North West					
Sokoto	Minor	Rabah, turcts, gudu, isa			
North Central					
Benue	Frequent	All across the State			Unknown
Nasarawa	Nasarawa LGA				
Taraba	Frequently	Takum; Bali			5; 2

South West					
Ondo	Very frequent	IgashiAkoko, AjowaAkoko, IluaboAkure			
Osun	Very low				
Oyo	Not frequent	Isejin area			Barely 10
South East					
Enugu	Occasional				
Ebonyi					
Imo	On regular occurrences	Ohaji-gbema. Owerri-west and Okigwe LGAs		About 3 -15 men kidnapped, 5 women raped	About 5 men killed
South South					
Bayelsa	Once	Gbaran force	20		
Cross River	Regularly	Bakassi; AkpabujoCalaber			

Stakeholders' Recommendations on Mitigation of Pastoralists-Farmers Conflict, Cattle Rustling and Kidnapping

The following recommendations were provided to mitigate pastoralist-farmers conflict, cattle rustling and kidnapping by stakeholder of livestock agriculture:

- Implementation of anti-grazing law and establishment of ranches.
- Ranching should be encouraged
- Provision of quick response whenever the issues arise. Provision of enlightenment on the ills of the issues.
- Proper youth empowerment by engaging them in agricultural practices to boost the food sector of the economy
- Re-establishment of National Stock Route.
- Empower community leaders towards reconciliation among farmers and pastoralists.
- Production of pastures in our rangeland.
- Improve security and strict compliance with existing laws.
- Job creations.
- Formation of farmer grazer conflict resolution committee.
- Enlightenment of stockholders.
- Poverty alleviation programs by the government and NGO.
- Payment of compensation for resettlement of pastoralist in grazing reserves
- Appointment of leaders of herdsmen in every local government area.
- Profiling names of herders in every community or LGA

Livestock Related Facilities in Nigeria

Table 11.14 showed livestock related facilities in Nigeria. The bulk of functional tanneries in Nigeria are located in in the North West Zone. However, all the States covered in this report have large numbers of abattoirs and slaughter slabs.

Table 11 .14: Livestock related Facilities in Nigeria

Agro-ecological zone	Tannery		Abattoir/Slaughter slab	
	Number	Location	Number	Location
North East				
Adamawa			63	All 21 LGAs
Bauchi			500	Spread across all the LGAs in the state
Gombe			66	Across 11 LGAs
North West				
Katsina	34	34 LGAs		One modern abattoir in katsina metropolis
Kano	58	Sharada Industrial Layout, Kano		
Sokoto	7	Sokoto	35	Across the state
North Central				
Benue			35	All across the State
Kwara			400	Akerebiata; baboko; mandate; e.t.c
Nasarawa				Lafia; Kaura; Obi; Awe; Doma; Akwaya; Wamba; N/eggon; Garku; Keffi; Karu; Nasarawa; Toto
Taraba			52	All local govt
South West				
Ekiti			57	Ado Ekiti and other 15 LGA on the average
Ondo			55	Across the LGA
Osun			210	All across the State
Oyo		Sango	34	All over the state

Abia			25	Different location across the state
Anambra			43	21 LGAs
Ebonyi			65	Ai; Afikpo; Onueke; Ishiapa; Ezransho
Imo			27-30	
South South				
Bayelsa			5	Swali; Elebale; Tolubua; Igbogene; Sagbama
Rivers			38	

Fisheries Production Estimates

Data on fish production estimate is presented in Table 11.15 and 11.16. Fisheries productions for the year 2018 were based on fish culture and capture fisheries, fourteen (14) states provided data on aquaculture, out of which only four (4) states Bauchi, Ekiti, Abia and Akwa-Ibom provided information both on aquaculture and captured/artisanal fisheries respectively. Bauchi and Oyo States recorded 10% and 7.2% increase in fish culture production respectively in 2018 compared to 2017, this increase in production could be attributed to the support provided by the various state government for fisheries inputs, however, the 62% decrease in production by Akwa-Ibom State is high compared to other States, this may be as result of inadequate data and or lack of support by the state government in terms of aquaculture inputs.

Similarly, the 61% reduction in the artisanal fish production in Akwa-Ibom State in 2018 when compared to 2017, may be attributed to inadequate data provided as it was stated that data made available was only for the first and second quarter of the season. Ekiti and Bauchi States experienced 5.8% and 1% increase in 2018 which is slightly above 2017. The absence of data from other states may be likely due to unavailability of vital information.

Table 11. 15: Aquaculture Production in 2017 and 2018

Northeast				
State	**Production in 2017 (MT)**	**Production in 2018 (MT)**	**Government intervention**	**Remarks**
North East				
Bauchi	14.3	14.4		
Gombe	47,863.2	52,436.6		
Northwest				
Katsina	936.6	982.2		
Zamfara	1083	1324		
North-Central				
FCT		541.5		
Taraba		18,013	-	
Niger	39.6	37.2		
Southwest				
Ekiti	2591	2290	Extension services	
Osun	512	530		
Oyo	39,780	42,634	Ext services	
Southeast				
Ebonyi	Catfish 800	900mt		-
Imo	Clariasspp 14.5 Tilapia 51.2 Heterobranchus 5.5	18.2 16.5 8.95		Fish value chain program and private NGO sponsorship
Abia		2.5	-	
South-South				
Akwa-Ibom	40,632	15,467		Nil

Table 11. 16: Artisanal Fish Production in 2017 as Compared with 2018

Northeast				
State	**Production in 2017 (MT)**	**Production in 2018 (MT)**	**Remarks/ Government Intervention**	**Remarks**
Northwest				
North-Central				
Bauchi	52	55		
Southwest				
Ekiti	25.3	25.5	Extension services	
South-East				
Abia	2.00		1.50	
South-South				
Akwa-Ibom	236,251.32	93,212.06	Nil	

Fisheries Pest and Disease Situation

The 2018 APS revealed that all six (6) Agro-ecological zones recorded different cases of pest and diseases in fish as shown in Table 11.19. Generally, the catfish, *Clarias gariepinus* has widespread infection of diseases in all zones. Such diseases include broken skull, swollen belly, Fin rot, white patches on the skin and barbels, and bruised mouth. In the North-East, Adamawa State recorded heavy infestation of fin rot with an estimated loss of 50%. There were however, no control measures reportedly taken on fish pest and diseases in all zones. The major causes of pest and diseases in aquaculture are mainly due to inadequate and poor water quality, poor management practices and lack of manpower in the area of disease diagnosis and treatment. Therefore, it is recommended that capacity development for extension workers in the area of fish disease prevention, diagnosis and treatment should be organized so as to enable step down training of fish farmers on improved management practices to forestall stock poor growth and mortalities.

Table 11.19: Fish Pests and Diseases

State	Type of fish	Pests or disease	Location of incidence	Severity	Estimated losses (%)	Remarks/ Government intervention
North-East						
Bauchi	Catfish Tilapia	Fish louse Swollen belly	Gubi farms	Mild	21 11	
Gombe	Clariasspp	Bacterial infection	Dadinkowa	Mild	1%	
Adamawa	Clariasspp	Fin rot		Severe	50%	
North-West						
Kaduna	*Clariasgariepuinus*	Broken skull	Kaduna south	Mild	4%	-
Katsina	*Clariasgariepinus*	White patches on the skin (fungal infection)	Funtua	moderate	20%	Extension agents
North-Central						
Taraba	Clarias& Tilapia	Bacterial infection	Bali &Gashaka	Mild		
Benue	*Clariasgariepinus*	Skin infection	-	Mild	5%	
South-West						
Ekiti	*Clariasgariepinus*	Broken head	Ado	Mild	10%	Extension agents
Oyo	*Clariasgariepinus*	Bruised mouth and body,White barbels fin rot & White spots on skin	Omi adio, Egbeda OluyoleAkobo Moniya	Mild	2%	
South-South						
Bayelsa	*Clariasgariepinus*	Broken head		Mild	5%	Nil
South-East						
Imo	Catfish & Tilapia	Eye fluke Tail fin rot	Across the state	Mild	3%	-
Enugu	Catfish &Tilapia	Skin infection Skin infection	Across the state	Mild	0.5	
Abia	Catfish	Bacterial infection Fungal infection	Isiala	Mild	10 3	

Procurement and Distribution of Fisheries Production Inputs

There was no information on aquaculture and capture fisheries inputs procurement and distribution in most of the states and where such information were provided, they were very scanty. This dearth in information is likely due to inadequate data collation, improper handling of records and possibly lack of funds and personnel for data collection.

Out of the thirty six (36) states and the FCT, only six (6) states procured and distributed different kinds of fisheries inputs in 2018 (Table 11.18). The FCT procured and distributed cold store, smoking kiln and fish tanks at a subsidized rate of 50% to farmers, however, Ebonyi, Kaduna, Imo and Ondo State procured and distributed catfish fingerling and fish feeds.

Table 11. 18: Fisheries Input

Zone	Type of input	Quantity procured		Quantity distributed		Remarks
		2017	2018	2017	2018	
North- Central						
Gombe	Fishing nets Lead weight Floats Twine Ropes	10 bundles 30 sheaths 200pieces 50 roles 32 roles		10 bundles 30 sheaths 200pieces 50 roles 32 roles		
FCT	Cold store Smoking kiln Fish tanks Fish feeds Scoop nets	20 13 18 200 20	10 10 22 300 -	20 13 18 200 20	10 10 22 300 -	Given at 5 0% subsidy by the government
North-East						
North-West						
Kaduna	Feeds Catfish juveniles Brood stock		180 bags 3600 2500			Training on catfish production for farmers
Southeast						
Ebonyi	Fingerlings Feeds	- -	1m 20mt	-	1m 20mt	State government
Imo	Fish feeds	28,5mt	41mt	29mt	32mt	Private
South-West						
Ondo	Juveniles	-	40,000	-	40,000	Govt.

Fish Markets in the States

Fish markets in the states for the year 2018 was classified under fresh and smoked fish traded as shown in Table 11.19. In the North-East only Bauchi State presented data for quantity of fresh and smoked fish traded. *Clarias gariepinus* was the only cultured fresh and smoked fish traded in 2018 which is slightly lower than in 2017. In the captured fisheries Clarias, Tilapia, Alestes and Heterotis were traded both as fresh and smoked fish in 2017 and 2018. Tilapia accounted for 35% of the fresh and 28% for smoked fish traded in 2018 making it the dominant species traded in Bauchi State. This may be likely due to availability and lower price compared to other fish species traded. There was an increase in the fish traded in Niger and Katsina States for fresh and smoked fish in both cultured and captured fisheries in 2018 compared to 2017. Imo and Ebonyi States had increases in the fresh and smoked fish traded both for captured and cultured fish in 2018 compared to 2017. Similarly, Oyo and Osun States had increases in the fish traded for cultured and captured fish in the year under study. Generally, more fish species are traded from captured fisheries than cultured fish in all the states. This invariably means that there is pressure on wild fish in capture fisheries. It is therefore recommended that aquaculture inputs should be made available to farmers at subsidized rates to enhance fish production in all the states.

Table 11. 19: Fisheries Markets in the State

States	Quantity of fresh fish traded (Mt)			Quantity of smoked fish (processed) fish (Mt)	
		2017	2018	2017	2018
North- East					
Bauchi	**Cultured fish** *Clariasgariepinus*	12.64	12.31	8.15	8.18
	Captured fish *Clariasgariepinus* *Tilapia* *Alestes* *Heterotis*	11.08 14.01 11.71 6.21	10.28 14.81 10.51 6.11	6.08 12.01 6.74 4.71	7.21 11.04 7.54 4.57
Gombe					
North-Central					
Taraba	**Cultured** *Clariasgariepinus* *Tilapia* **Captured fish** *Clariasgariepinus* *Tilapia* *Alestes* *Heterotis*	18,013 3,003.25		5,003.28 6,003.25	

Niger	**Cultured fish**	25	26.5	22	23.6
	Captured	185	81	101	125
North-West					
Katsina	**Cultured fish**				
	Clariasgariepinus	152	178	80	110
	Tilapia	6.0	8.0	-	-
	Captured fish				
	Clariasgariepinus	482	506	180	272
	Tilapia	784	804	206	356.6
	Alestes	122	132	62	74
	Heterotis	19.34	22	11	14
Zamfara	**Cultured fish**				
	Clariasgariepinus	301	322	182	180
	Tilapia	110	130	140	153
	Labeospp	106	128	103	102
	Synodontisspp	58	105	150	122
	Captured fish	-	-	-	-
South-East					
Imo	**Cultured fish**				
	Clariasgariepinus	8.5	10.45	2.0	5.40
	Heterobranchusspp	7.0	10.0	7.50	8.20
	Tilapia	10.20	12.00	5.0	4.50
Ebonyi	**Cultured fish**				
	Clariasgariepinus	50	55	30	35
	Tilapia	15	25	12	20
	Captured fish				
	Clariasgariepinus	25	30	20	25
	Tilapia	20	25	20	25
	Heterotisniloticus	10	15	15	10
	Synodontisspp	5	5	5	4
Abia	**Cultured fish**				
	Catfish	2.00	-	1.5	-
	Captured Fish				
	Tilapia	0.6		0.3	-
	Heterotis	0.3		0.1	-
South-West					
Osun	**Cultured fish**				
	Clariasgariepinus	451	455	100	105
	Heterobranchusspp	55	45	15	16
	Tilapia	13	135	4	5
		20	15	5	4.5
	Captured fish				
	Clariasgariepinus	125	120	55	45
	Tilapia	450	400	125	105
	Heterotisniloticus	125	150	50	45
	Channaobscura	200	165	75	65
Oyo	**Cultured fish**	36,800	42,679	32,000	28,634
	Captured fish	34,000	41,230	36,750	30,446
South-South					
Akwa-Ibom	**Cultured fish**	394.5	54		
	Captured fish	186.8	264		

12.0 ADP EXTENSION ACTIVITIES IN 2018

12.1 ADP Funding Situation

Adequate funding is the backbone of efficient extension services. Since the withdrawal of World Bank counterpart fund, State Governments has been the major source of fund for the ADPs. Table 12.1 presents the summary of the 2018 funding status of ADPs throughout the country. In 2018, only Katsina (100%) Lagos (86.6) and Abia (58.3) State recorded over 50% of the target fund. Most States recorded less than 20% achievement. Taraba, Bauchi, Benue, Nasarawa, Ekiti, Imo, Ebonyi recorded 0% achievement of target fund. Generally, there was decline in funding compared to 2017.

12.2 Performance Indicators of ADPs

Table 12.2 indicates the performance indicators of ADP extension activities. The indicators are number of farm families reached, number of extension workers, village extension agents' visit, technology dissemination strategies (OFAR, MTP, SPAT), technology/Knowledge Sharing, transfer and feedback (MTRM and FNT), farmers' Group Development and training, extension agent: farm family ratio, training of farmers and farmer field schools (FFSs) activities.

12.2.1 Number of Farm Families Reached

Farm families are the basic unit of agricultural technology uptake. Increased support for agriculture is expected to lead to increased number of farm families who are engaged in agriculture. The number of farm families reached by the ADPs depends on the number of extension agents as well as their mobility. Kano state reached the highest number of farm families, with 1,620,000 followed by Bauchi (987,925), Katsina (965,536), Niger (816,575), and Akwa-Ibom State (685,095). Bayelsa recorded the least of 95,465 farm families. Compared with 2017 figures, only Ebonyi and Cross-River states recorded slight improvements in the number of farm families reached.

12.2.2 Number of Extension Workers

Adequacy in number of active and well-trained extension agents determines the effectiveness and efficiency of extension services. Bauchi has 185 VEAs while Gombe has 42. Generally, there was decrease in the number of VEAs from 2017 to 2018 across the nation's ADPs. However, the federal Government intervention through the N-Power (Agro) has assisted in boosting the number of frontline extension agents across the country. The number of SMSs, BESs and BEA (WIA) has been relatively steady. The distribution of EAs across Nigeria is shown in Figure 12.1.

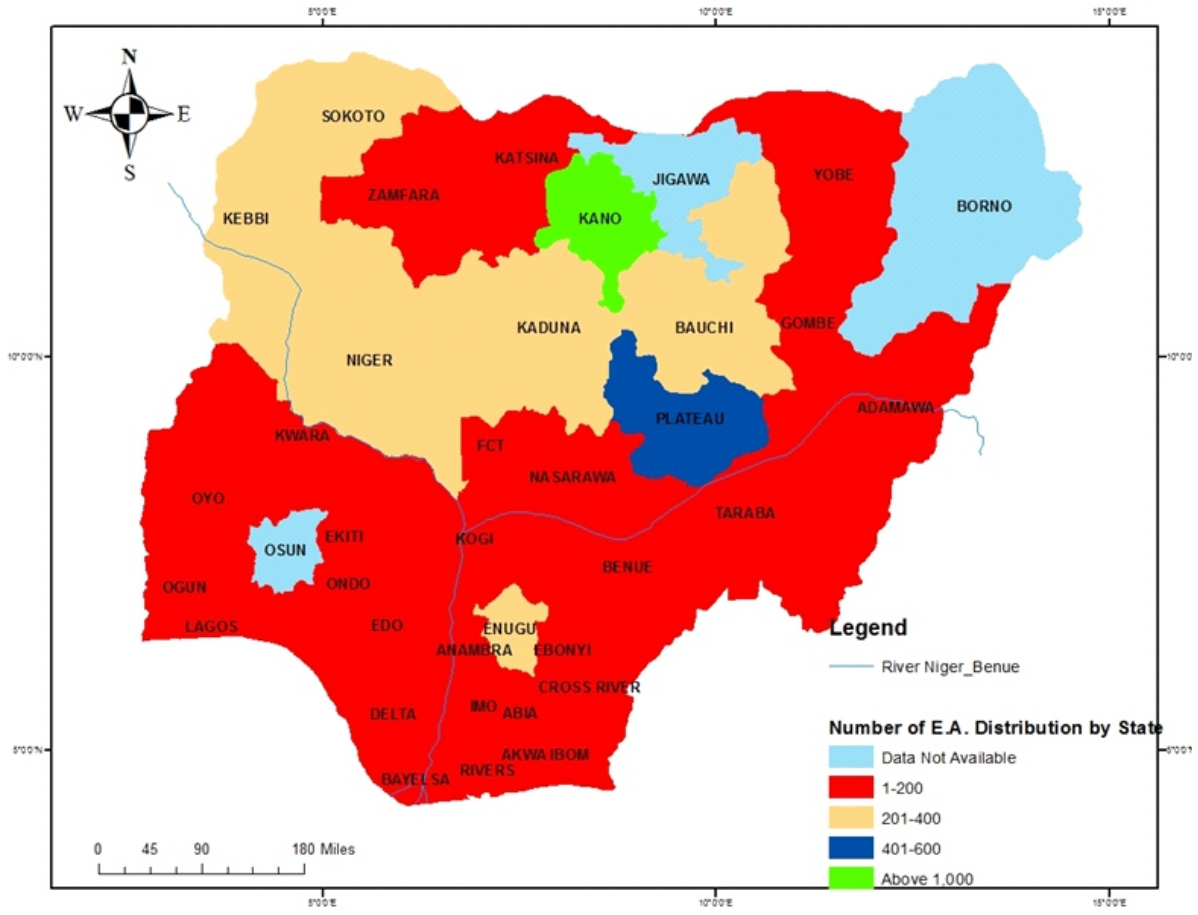


Figure 12.1: Distribution of extension agents across Nigeria

12.2.3 Village Extension Agents' Visit

Extension agents' contact with farmers remained the major medium of sharing ideas and information on modern agricultural practices. Teaching and learning becomes more effective as it affords opportunity for demonstration of methods and results. Provision of tangible mobility is the essential facilitation to enhance regular visit of VEAs to farmers. In 2018, Kano and Gombe states recorded 885,456, and 16,320 visits, respectively, to farmers. Generally, VEA's visit to farmers declined from 2017 to 2018.

12.2.4 Technology Dissemination Strategies (OFAR, MTP, SPAT)

On-Farm Adaptive Research (OFAR), Management Training Plots (MTP), and Small Plot Adoption Techniques (SPAT) are the major strategies adopted by the ADPs to disseminate proven technologies to farmers. The use of these strategies requires provision of inputs and adequate mobility and efficient supervision. The number of OFAR, MTP and SPATs established is on the decline compared to 2017 record.

12.2.5 Technology/Knowledge Sharing, Transfer and Feedback (MTRM and FNT)

The Monthly Technology Review Meeting (MTRM) and the Fothnightly Training (FNT) are the major avenue for technology sharing/transfer as well as serving as opportunity to receive feedback from farmers to the research institute. In 2018, record obtained revealed very poor linkage of extension with research as most states could not hold MTRM and FNT.

12.2.6 Farmers' Group Development and Training

Formation and management of farmers' group is an essential role of the ADPs. Farmers' group serves as a medium of enlightenment as well as giving farmers the opportunity to relate with one another for higher productivity. Lagos state recorded the highest (485) number of farmers' group formed in 2018.

12.2.7 Extension Agent: Farm Family Ratio

The number of extension agent to farm families is a measure of ADPs' efficiency to effectively reach all farm families. EA: farmer's ratio is consequent on number of extension agents. The desired 1 EA:1000 farmer's is far from being realized as reports from all the states indicate very high EA:Farmer's ratio. Kano. Rivers state recorded 1:18,429 while Ondo State recorded 1:6600.

12.2.8 Training of Farmers

Regular training is important to build the capacity of farmers by sharpening their practical skills to enhance higher productivity. Across the state ADPs, record shows that the number of farmers' training conducted has declined from 2017 record.

12.2.9 Farmer Field Schools (FFSs) Activities

The farmer field schools provide a platform for experiential learning and encourage farmer-to-farmer information sharing. State ADPs were expected to establish and manage FFSs. Cross River, Jigawa and Lagos states had the highest number of FFSs recording 166, 109, and 81 respectively.

12.3 Challenges of ADPs in Nigeria

Major challenges hindering efficient performance of the ADPs include poor funding, inadequate staffing, and inadequate transportation/utility vehicle affecting virtually all states. Others include inadequate extension material (Input), high EA:farmer ratio, inadequate allowances, inadequate training, poor media services.

Table 12.1: Status of ADP Funding in 2017 and 2018

	Northeast Zone					
	2017			**2018**		
	Target	**Achieved**	**%**	**Target**	**Achieved**	**%**
Taraba	263,039,221	231,040,095.49	87.83	286,712,750.89	_____	0
Gombe	303,030,108	209,602,202.89	69.17	37,092,134	94,735	0.26
Bauchi	258,382,628	_____	0	258382628	_____	0
Borno	**132,000,000**	**92,000,000**		**92,000,000**	**8,000,000**	
	Northwest Zone					
Kaduna	473,529,615	235,877,200	49.81	285,877,200	_____	0
Sokoto	75,000,000	42,000,000	**56**	65,000,000	6,000,000	**9.23**
Katsina	34,000,000	34,000,000	**100**	10,000,000	10,000,000	**100**
	North Central Zone					
FCT	_____	_____	0	58,230,700	18,000,000	30.9
Benue	16,000,000	_____	0	16,000,000	_____	0
Plateau	795,255,008	409,429,668.40	51.48	766,655,592	176,393,800.92	23.01
kwara	9,469,272	5,523,742		9,469,292	1,183,659	
Nassarawa	24,000,000	_____	0	24,000,000	_____	0
Southwest Zone						
Ekiti	82,800	_____	0	103,000	_____	0
Lagos	218,000,000	175,000,000	80.28	224,000,000	194,000,000	86.61
Southeast Zone						
Abia	12,000,000	12,000,000	100	12,000,000	7,000,000	58.3

Imo	180,000,000	_____	0	200,000,000	_____	0
Enugu	10,000,000	1,200,000	12	10,000,000	800,000	8
Ebonyi	251,700,000	42,000,000	16.69	640,500,000	_____	0
South-South Zone						
	Target	**Achieved**	**%**	**Target**	**Achieved**	**%**
Rivers	745,143,695.67	442,876,575.38	59.44	_____	_____	0
Edo	111,300,000	24,000,000	21.56	156,500,000	16,000,000	10.22
Bayelsa	128,735,236	128,133,236	99.53	128,733,236	86,488	0.067

Table 12.2: Extension Activites/Workers across the six geo-political zones

North East Zone

State	Years	Target/Achievement	№ of Farm Families	SMSs	BES	BEA's/WIA	VEAs	VEAs' Visits	OFARs	SPATs	MTPs	MTRMs / QTRMs	FNTs/MTs	№ of Groups /Coops	EA/Farmer Ratio	№ of farmers Trained	№ of farmers field schools
Adamawa	2017	Tar	450000	24	48	48					3	12	24				
		Ach		16	34	34						1					
	2018	Tar	450000	24	48	48						12	24				6
		Ach		20	38	38											6
Bauchi	2017	Tar										12	24				
		Ach															
	2018	Tar		27	65	60	350	23414		500	250	12	24	12500	1:2500	1500	
		Ach	987925	27	57	30	185	21256		500	120			13500	1:5428	920	
Borno	2017	Tar															
		Ach															
	2018	Tar															
		Ach															
Gombe	2017	Tar	309366	8	66	66	528	50688	21	560	140	12	4		1:800		9
		Ach	123746	6	15	15	46	50688						5222	1:4000		9
	2018	Tar	309366	8	66	66	528	65280				12	4		1:800		9
		Ach		5	26	15	42	16320		7	7			6118	1:4500	350	9
Yobe	2017	Tar	1,000,000	12	18		167					12	24		1:800		60
		Ach	566,322	12	6		135								1:1922		
	2018	Tar	1,000,000	12	18		167					12	24		1:800		100
		Ach	566,322	12	15		112					1	4		1:30		51

NORTH WEST ZONE

State	Years	Target/Achievement	№ of Farm Families	SMSs	BES	BEA's/WIA	VEAs	VEAs' Visits	OFARs	SPATs	MTPs	MTRMs / QTRMs	FNTs/MTs	№ of Groups /Coops	EA/Farmer Ratio	№ of farmers Trained	№ of farmers field schools
Jigawa	2017	Tar	610,000						3						1/800	6000	41
		Ach	610,000						41						1/2000	5800	41
	2018	Tar	610,000												1/800	4000	109
		Ach	610,000												1/2000	4000	109
Kaduna	2017	Tar		28	23	450	450				1100	12	24		1: 1000	4500	
		Ach		28	23	220	220				720		24		1: 4500	2600	
	2018	Tar		28	23		450				1090	12	24		1: 1000	10000	
		Ach		28	23		218				945		18		1:5500	6250	
Kano	2017	Tar		6	176	176	2025	1,475,760			12,800	4			1:800	11,000	
		Ach	1620000	6	176	122	1414	1,328,184			7,680	2			1:926	7,800	
	2018	Tar		6	176	176	2025	1,475,760			12,800	4			1:800	11,600	
		Ach	1620000	6	176	120	1118	885,456			9,216				1:926	3,956	
Katsina	2017	Tar	965,436	25	34							12			1:100	10,000	
		Ach	965,436	10	20							12			1:4500	10,000	
	2018	Tar	965,436	25	34							12			1:100	10,000	
		Ach	965,436	8	34							12			1:4500	4,700	
Kebbi	2017	Tar		8	32		341										
		Ach		8	32		205										
	2018	Tar		8	32		341										
		Ach		8	32		180										

Sokoto	2017	Tar		8			700					12	24		1:1000		15
		Ach		3			230					2	6				15
	2018	Tar		8			700					12	24		1:1000		30
		Ach		3			230					2	6				30
Zamfara	2017	Tar	352,000	10	36	36		73,216	20		100		26	250	1:1000	1000	42
		Ach	115,000	10	36	5		23,712	2		14		12	112	1:3080	650	21
	2018	Tar	352,000	10	36	36		73,216	20		100		26	250	1:1000	1,000	42
		Ach															

NORTH CENTRAL ZONE

State	Years	Target/Achievement	№ of Farm Families	SMSs	BES	BEAs/WIA	VEAs	VEAs' Visits	OFARs	SPATs	MTPs	MTRMs / QTRMs	FNTs/MTs	№ of Groups /Coops	EA/Farmer Ratio	№ of farmers Trained	№ of farmers field Schools
Benue	2017	Tar	413159(1992)	5	46	46	368					12	26		1:1000		
		Ach		4	21	4	38					2	10	624	1:1000		
	2018	Tar		5	46	46	368						26	1000	1:1000		
		Ach		4	20	4	27						10	960	1:15000		
FCT	2017	Tar		42	26	26	131			18		12	24		1:1000	24	
		Ach		27	26	26	46						24		1:3587		
	2018	Tar	170000	24	26	26	131				18	12			1:1000	24	
		Ach	165589	12	26	15	47								1:1587		
Kogi	2017	Tar	1000	20	24	24	192	2,976			9230	12	24		1.1000		
		Ach	4000	12	24	20	123	1,080			2265	1	24		1:400		
	2018	Tar	1000	20	24	24	192	2,976			9230	12	24		1.1000		
		Ach	40006	12	24	24	135	1,076			2200		16		1:400		
Kwara	2017	Tar	354,518	16	25	50	400							15	1:1000		
		Ach	354,518	16	16	6	120							2	1:914		
	2018	Tar	400,000	20	64	64	400							15	1:1000		
		Ach	400,000	16	16	4	12							2	1:2340		

Nasarawa	2017	Tar	180,433	18	26	26	153				100	12			1:1000		
		Ach	180,433	18	25	18	105					1			1:1700		
	2018	Tar	180,433	18	26	26	153				100	12			1:1000		
		Ach	180,433	18	25	18	102	60,000							1:1769		
Niger	2017	Tar	-	15	40	40	1000	-	300	-	-	12	26	150	1:500	-	-
		Ach	-	15	40	29	248	60,000	NA	-	-	5	5	-	-	-	-
	2018	Tar	-	15	40	40	1000	35,211	300	-	-	26	26	150	1:500	-	-
		Ach	-	15	40	29	248		NA	-	-	3	3	-	-	-	-
Plateau	2017	Tar	325082	18	32	32	700	30,778			240	12			1:800-1000	3	
		Ach		14	10	2	468	29,202			150	1				2	
	2018	Tar	325082	18	32	32	700	121,680				12			1:800-1000	3	
		Ach		14	8	1	467	102,588									
Taraba	2017	Tar	288000	10	30	30	288	14,976			6	12	24	576	1:1000		81
		Ach	288000	2	16	72	72	899			1	1	1	700	1:4000	500	27
	2018	Tar	288000		30	288	288	14,976			6	12	24	576	1:1000		81
		Ach	228000		16	72	72	312			1	1	1	700	1:4000	500	27

SOUTH WEST ZONE

State	Years	Target/Achievement	No of Farm Families	SMSs	BFS	BEAs/WIA	VEAs	VEA Visits	OFARs	SPATs	MTPs	MTRMs/QTRMs	FNTs /Mts	No of Groups Coops	EA/Farmer Ratio	No of farmers Trained	No of farmers field school
Ekiti	**2017**	**Tar**	23500	14	16					**3**		12		200	1:1000		
		Ach	23500	10	16					243		5		85	1:1500		
	2018	Tar	23500	14	16							12		200	1:1000		
		Ach	23500	8	16							3		36	1:5393		
Lagos	2017	Tar	332,400	36	16	3	12			13	30	12	26	500	1:1000	250	81
		Ach	128,925	28	16	3	6			11	28	3	25	475	1:4350	112	61
	2018	Tar	322,400	36	16	3	12			15	15	12	26	500	1:1000	250	81
		Ach	558,420	30	16	3	6			11	13	2	25	485	1:6420	150	81
Ogun	2017	Tar	280,000	20	20	20	126	10,080	6	-	1638	12	24	552	1:800	16,560	456
		Ach	180,000	15	18	10	69	5000	2	-	1181	1	24	240	1:4000	8,280	306
	2018	Tar	280,000	20	20	20	126	10,000	6	-	1638	12	24	552	1:800	16,560	456
		Ach	120,000	15	17	10	65	4860	2	-	1000	1	16	-	1:4138	7,206	250
Ondo	2017	Tar	501,000	8	18	4				1000	18	12	24	24	1:240		27
		Ach	501,000	8	18	4				299		1	24	48	1:6600		
	2018	Tar	501,000	8	18	4				1000	18	12	24	248	1:240		27
		Ach	501,000	8	18	4				299			24	19	1:6600		
Osun	2017	Tar															
		Ach															
	2018	Tar															
		Ach															
Oyo	2017	Tar	415030		33	4						12	26		1:800		27
		Ach			28	4							22		1:7155		54
	2018	Tar	415030		33	4						12	26		1:800		27

SOUTH EAST ZONE

State	Years	Target/Achievement	№ of Farm Families	SMSs	BES	BEA's/WIA	VEAs	VEA Visits	OFARs	SPATs	MTPs	MTRM / QTRMs	FNTs/MTs	№ of Groups /Coops	EA/Farmer Ratio	№ of farmers Trained	№ of farmers field schools
Abia	2017	Tar	410345	18	38	38				3	4	12	24		1:800	58000	81
		Ach	410345	18	32	22				230	60		18		1:2800	4025	
	2018	Tar	410345	18	38	38						12	24		1:800	6000	81
		Ach	410345	18	35	26							16		1:1568	2500	
Anambra	2017	Tar	500	20	21	21	179			42	150	12	26		1:1000	2000	50
		Ach	338721	20	18	4	38			43	98	2	22		1:3421	1200	
	2018	Tar	500	20	21	21	179				5	12	26		1:1000	2000	50
		Ach	338721	20	18	4	38						17		1:1000		
Ebonyi	2017	Tar	1,000,000	15	24	26	26	28,133		23000	1300	12	26	25000	1000	522,395	
		Ach	522,395	5	24	26	8	16000		12000	1000		26	5000	4542	100,000	
	2018	Tar	1,000,000	15	24	26	500	22133		5150	515	12	26	25000	1000		
		Ach	622,415	15	24	26	103	16000		1545	206		17	5000	6043		
Enugu	2017	Tar	600000	30	17	17	300	396		754	66	12	24		1:800		
		Ach	242542	30	17	17	352	219		176	17	4	24		1:2114		
	2018	Tar	600000	30	17	17	300	396		187	60	12	24		1:800	6000	
		Ach	242542	30	17	17	352	152			12				1:2114	1500	
Imo	2017	Tar	603,333	30	30	40	260	160		1000	1000	24	24	1000	1:1000	1500	66
		Ach	303,333	15	15	27	120	100		800	600	24	20	700	1:1000	1400	
	2018	Tar	603,333	30	30	40	260	160		1000	1000	24	24	1000	1:1000	2000	
		Ach	303,333	15	15	27	120	100		700	500	10	22	700	1:3333	1000	

SOUTH SOUTH ZONE

State	Years	Target/Achievement	No of Farm Families	SMSs	BES	BEA's/WIA	VEAs	VEA Visits	OFARs	SPATs	MTPs	MTRMs /QTRMs	FNTs/MTs	No of Groups /Coops	EA/Farmer Ratio	No of farmers Trained	No of farmers field schools
Ak/Ibom	2017	Tar	685095	41	40	41				32	8	12	26	1288	1:2500		
		Ach	685095	40	40	41				33	45		26	362	1:4336		
	2018	Tar	685095	41	40	41						12	26	1288	1:2500		
		Ach	685095	40	40	41							26	279	1:14336		
Bayelsa	2017	Tar	1009	7	32	18	174	120		14	1	12	24	1000		300	81
		Ach	95474				14	28		12	3			1260	1:9547	180	
	2018	Tar	10000	7	32	19	174	2464				12	24	1000		300	81
		Ach	95474				14	705						1260	1:9547	100	
C/River	2017	Tar	500000	15	18	18	144			10	1200	12		1696	1:3343		104
		Ach	4797	15	18		106			272				1696	1:4542		104
	2018	Tar	540860	15	18	18	144				470	12		1504	1:3343	5640	166
		Ach	320000	15	18		94				107			658	1:5122	4903	166
Delta	2017	Tar	179256	**12**	25	25	200					5	12	26	1:800		
		Ach	179256	**12**	25	10	84							22	1:2675		
	2018	Tar	179256	**12**	25	25	200				1		12	26	1:800		
		Ach	179256	**12**	25	10	84				2			15	1:2675		
Edo	2017	Tar	200,000	12	18	18	144	4	-	-	12		26	62,300	1:800	800	1800
		Ach	175,000	5	18	3	32	-	510	47	1		26	5688	1:350	628	-
	2018	Tar	200,000	12	36	36	288	4	2000	200	12		26	67,000	1:800	1000	1800
		Ach	175,000	5	32	88	32	-	1004	127	-		16	10,215	1:100	860	298
Rivers	2017	Tar			48		282					4	26	64	1:800	1400	
		Ach			21		55						26	96	1:18429	1200	
	2018	Ta			48		55					4	26	70	1:1000	1560	

Table 12.3: List of Technologies under OFAR, MTP, SPAT

Northeast Zone			
State	**OFAR**	**MTP**	**SPAT**
Borno	-Sorghum (ICSU 400) -MILLET (SUPER SOSAT) -MAIZE (SAMMAZ 11 & 17) -GROUNDNUT (SAMMNUT 25 & 26)	-Sorghum (ICSU 400) -MILLET (SUPER SOSAT) -MAIZE (SAMMAZ 11 & 17) -GROUNDNUT (SAMMNUT 25 & 26)	-MILLET (SOSAT) -MILLET (SUPER SOSAT)
Adamawa			Spacing Fertilizer dose Pest control Disease control in crop Certified seeds Disease control in livestock Compost usage Storage demonstration Tree crops demonstration
Taraba			
Yobe			
Gombe	-Spacing technology -Use of mechanical planter -Seed multiplication	-Spacing technology -Use of mechanical planter -Seed multiplication	-Tissue culture of banana seedling -Tissue culture of pine apple seedling
Bauchi	-Post harvest handling and processing -Nutritional deficiency of soil toxicity -early maturity tolerance high yielding	- Low shattering variety Early maturity tolerance and high yielding -Fertilizer application(Date, time and method of application)	-Effect of sesame/legume intercrop -Effect of gel fertilizer on maize -Effect of gel fertilizer on sorghum -Effect of gel fertilizer on Rice -Effect of gel fertilizer on millet
Northwest Zone			
State	OFAR	MTP	SPAT
Kaduna		Spacing Herbicide application Planting-seed/hole Insecticide application Ridging Fertilizer application Fall armyworm control	
Kano		- Good agric practices. Control of Aflatoxin - Benefits of crop rotation and strip cropping techniques - Varietal introduction o f Sam 23, 24, 25, 26 - Varietal introduction of	

Kastina		Sampea 14,15,FVAMPEA 1 - GAP/FFBS on maize EMPTY	
Jigawa			
Zamfara	Extra early maize	Promotion of improved millet variety (supersosat) Promotion of drought tolerant maize Promotion of r ice transplanting technology Boarderline planting of tree crops using zogale to promote additional nutritional intake among rural populace Upgrading of indigenous poultry using improved cockrels Fish feed formulation using available agro by-products	
			Demonstration of SAMMAZ 40 Demonstration of SAMPEA 14 & 16
Sokoto	On-farm evaluation of extra early maize SAMAZ 33	-	-
Kebbi	Demonstration of SAMAZ 40 Demonstration of SAMPEA 14 and 16		
Northcentral Zone			
State	OFAR	MTP	SPAT
Benue			
		Cassava (TME 419) Maize production (SUWAN 1) Vaccination against PPR Vaccination against NCD Manage control IKS/arthropods Planting improved fruit trees e.g oil palm, citrus Control of prem ature fruit dropping Rice production	
Kwara			
Nasarawa		Rice (Faro 44) - Varietal and spacing	
		Maize (LNTP) -Varietal and spacing	
Niger			
Plateau			

		Good agricultural practices Rice production Maize production Potato production Cassava production Sesame production Vegetable production Tree crop production Value addition in crops	
		"Rice transplanting" to replace broadcasting and direct seeding Efficacy of odyssey post emergence herbicide on soybean and groundnut trial	
Taraba			
FCT			
Southeast Zone			
State	**OFAR**	**MTP**	**SPAT**
Abia		CME Cassava/maize/sweet potato Yam/maize/melon Yam/maize/telfaria	Cassava/maize intercrop Cassava/maize/telfaria Yam/cassava/maize Yam/cassava alternate row Rabbitory production Grass-cutter production Yam/maize/melon Yam/maize/telfaria Sanitation in piggery
Anambra		YCMU intercrop Pig production Plantain/banana production Cassava/maize/vegetable intercrop Pond water management Fish feed production and management Agronomic practices in rice Broiler/layer production and management	YCMU intercrop Pig production Plantain/banana production Broiler/layer production and management Processing of cocoyam into various forms Bee-keeping Agronomic practices in rice production Agronomic practices in vegetable production Fish feed production and feeding Pond water management
Enugu	-Y/M/C -Yam mini sett/ maize -Cassava / maize intercrop -Swamp rice -Upland rice -Sole maize -Beekeeping -Orange fleshed potato	Planting distances/fertilizer application -line planting -planating distances -??? & general mgt -Agronomic practices	Orange fleshed potatoes

Imo	Agroforestry Home Stead Fish Snail Rearing Livestock Rearing Poultry/Fishery Piggry W.I.A Bee Keeping Hiv/Aids Health Programme	As In Spat Technology	Not Yet Because Of Lack Of Funds
Ebonyi			
	-Dry Season Rice/Vegetable -Lowland Rice Production -C/M/Sp Or Vegetable -Beekeeping -Sheep & Goat Raised -Yam Mini Set Multiplication -Processing& Utilization Of C -Nursery/Line Planting Of Rice -Late M/C/Sp	-Swamp Rice Production -Beekeeping -Home Stead Fish Pond -Processing Of Cassava -Poultry Management -Sheep And Goat Mgt -Yam Mini Set Production	
Southwest Zone			
State	OFAR	MTP	SPAT
Ogun	On-farm evaluation of 2 different insecticides in the control of FAW in maize Comparing the Quality of dried pepper powde r in glass container and polythene bags for 3 months	Improved variety and spacing in cassava Fertilizer application to cassava Birds control using net weed control in crops Fattening ration for sheep and goat Feed formulation for pigs Value addition to fi sh Value addition to cassava control of endo and ecto - parasites	
Ondo	Maize intercrop Pond grassing Oil palm lining and planting Opp in maize Cassava intercrop with maize Optimum plant population in tomato Yam multiplication through mini set production	Maize MPFS Cassava 0.25ha Sweet potato 0.25ha/plot Site demonstration	Evaluation of performance of hybrid maize varieties Evaluation of local fish waste as replacement for imported Demonstration of smoking kiln to artisanal folks Evaluation of sundried poultry litters as feed resumes Evaluation of the role of organic and inorganic fertilizer for yam Evaluation of incubating the yield of tomato using biochor Demonstration of processing and utilization of soy maize as snacks

Osun	-Control of armyworm		
Oyo	Control amy worms in maize	Control of armyworms in maize	
Lagos			-Evaluation of fuel characterization of briquettes produced from corn cob and rice husk. -Fertilizer micro -dosing for vegetable (spinach production in lagos state agroecology) -Use of manual (pedal) and motorized rice thresher -Effect of floating pelletized feed containing bakers' yeast on the growth performance of clarias juvenile -Effect of partial replacement of PKC on growth performance of pigs -Evaluation of different metho d of processing roselle drink
Ekiti	Evaluation of efficacy of two different fungicides on the control of black pod disease of cocoa in Ekiti State Evaluation of performance of two newly developed variety of cowpea on the farmers' field On-farm evaluati on of compost to control cocoyam root-rot Demonstration on trhe performance of clarias garipinus stocked with oreochromis niloticus in earthen ponds. Improving fruit consumption among farmers in Ekiti State Construction and demonstration of multipurpose drier Construction and demonstration of rodent-proof ventilated yam barn Performance of WAD-fed concentrate diet with 30% corn cob inclusion level	Cocoa rehabilitation Establishment of cocoa seedlings Snailry production Orange flesh sweet potato Vegetab le production processing & utilization	Introduction of improved cocoa CRIN-CTI-8 Vitamin A fortified cassava Introduction of OFSP Use of terractive fertilizer Fish smoking using smoking kiln Utilization of high quality cassava Mushroom production flour technique Organic fertilizer production/utilization Post harvest processing of rice High quality soya milk

South-SouthZone			
State	**OFAR**	**MTP**	**SPAT**
Akwa-Ibom	i.On farm evaluation of soil amendment and fungicide application for the control of leaf blight ii. O n farm evaluation of the productivity and acceptability of culturing catfish Claris guiepinus using maggot meal iii. On farm evaluation of the productivity and acceptability of broiler chicken raised on sand litter iv. On farm evaluation of confectionary (Chin chin, cake and dough nut made from yellow and white cassava)	i.Poultry production ii. Fisheries iii. Piggery production iv. Plaintain/Cocoyam v. Yam/maize/Telferia vi. Forest vegetable vii. Dry season vegetable viii. Cassava/maize/vegetable	i.Cassava /maize/vegetable ii.Sole cassava (2^{nd} season) iii.Yam/maize/vegetable iv.Swamp/upland rice v. Dry season vegetable vi.Forest vegetable vii. Poultry production viii. Artificial brooding ix. Pig production x. Home stead fish pond
Cross Rivers		i.Pen constr uction, stocking, feeding, pest and disease management in livestock ii. Spacing and fertilizer application in rice and cassava	i.Spacing and fertilizer application in lowland rice ii. Spacing and fertilizer application in cassava iii. Yam mini sett technol ogy iv. Pen construction, stocking and water quality control
Delta	-	Hybrid maize FB5-Vita cassava Tomato production Rice varietal trials	-
Edo			
Rivers			i.Yam minisett/maize ii. YMCE or T iii. Cassava /maize/Egusi iv. Cassava/maize-intercrop v.Plaintain/Cocoyam vi. Improved cassava varieties vii. Cassava/maize/cowpeas viii. Sheep/Goat Confinement ix. Rabbit rearing x. Homestead fish pond

Bayelsa	i. Storage of cassava stems during floods ii. On -farm evaluation of the productivity and profitability of composite cassava meal in layer ration iii. On -farm evaluation of processing soyabean flour into milk iv. On -farm evaluation of formulating floating feed from local materials in heterobranchus spp v. On -farm evaluation of enriched sweet potato basket snail feed supplemenyed with cray fish waste on the growth of Achatina achatina	Rice production	Cassava/maize intercrop Plantain sole Plantain/cocoyam intercrop Cocoyam/maize intercrop Confinement of sheep and goat Brroding of broiler chicks Homestead fish pond construction Snail farming Processing of soyabean Processing of cassava into confectionaries

Table 12.4: Problems Affecting the Performance of ADPs in Nigeria

Nature of problem	States Affected
Poor funding	Lagos, Bauchi, Cross River, Rivers, Osun, Kebbi, Katsina, Anambra, Borno, Enugu, Nassarawa, Kano, Kwara, Ekiti, Yobe, Adamaw, Benue, Kogi, Ondo, Oyo, Zamfara, Gombe, Ebonyi, Niger, FCT
Inadequate staffing	Lagos, Bauchi, Abia, Akwa Ibom, Rivers, Enugu, Kano, Ekiti, Yobe, Adamawa, Benue, Ondo, Bayel sa, Zamfara, Gombe, Ebonyi, Katsina, FCT
Inadequate transportation/utility vehicle	Lagos, Bauchi, Abia, Akwa Ibom, Imo, Rivers, Kebbi, Enugu, Kano, Kaduna, Kwara, Ekiti, Benue, Kogi, Ondo, Bayelsa, Zamfara, Gombe, Ebonyi, Niger, FCT
Inadequate extensio n material (Input)	Bauchi, Abia, Kaduna, Ekiti, Adamawa, Delta, Niger
High ratio of E A: Farmers	Imo, Oyo
Inadequate allowances	Imo, Katsina, Delta
Inadequate training	Katsina, Kano, Kaduna, Kwara, Kogi
Poor media services	Anambra
Redundancy	Yobe

NGOs

Table 12.5 shows the 2018 assessment on NGOs level of participation in agricultural extension activities in all the six agricultural zones. Among the states, that provided data, Jigawa has highest number four (4) different NGOs engaged in the North West, Bauchi state in the North East and Lagos and Ogun States in the South West. Most of the NGOs participated in provision of interventions in the promotion of crop commodities, extension services on crops, fisheries and livestock, trainings, farm inputs supports, product development and youth and women empowerment activities. Both local and international Organisations that are prominent included SASAKAWA G2000, OXFARM, ACTION AID, AGRA and Women for Women among others. Also, international donor agencies and research institutes such as FAO, IFAD, ICRISAT, IITA and UNICEF have supported agricultural extension activities in various aspect.

Table 12.5.: NGOs Participation in Extension Activities in States

Northwest Zone		
States	**NGO's Name**	**Activities in the state**
Katsina	Chi-FARMS/USI\AID WOFAN	Training farmers on fish farming Training youth and women on farming activities
Kebbi 1)	OXFAM	Farmers' support
Kaduna 1)	AGRA 1)	Demonstration and market linkages
1)	OCP 1)	Soil testing
1)	GIZ 1)	Capacity building on GAP, FBs and demonstration
Kano	SG2000	Extension services, processing and market linkages
Sokoto	NA	NA
Jigawa	SG 2000	Extension
	IFAD	Service value chain
	FADAM III AF	Value chain
	ATASP	Irrigation sites development
	ICRISAT	Variety upscaling (G/Nut)
Zamfara	NA	NA
Northeast Zone		
States	**NGO's Name**	**Activities in the state**
Gombe	SG2000 HOPE FOR THE LONELY	1) Demonstration of technologies 2) Distribution of inputs 3) Revolving loans to farmers Food security
Borno	NRC ACF STCI	Crops and livestock promotion
Bauchi	ICRISAT	Millet and Sorghum Promotion
	IITA	Maize and Cowpea Promotion
	UNICEF	Health and Nutrition
	OPC AFRICA	Extension Services
Adamawa	NA	NA

Yobe	UNDP PEDCROSS CRS FAO	Extension services Farm inputs supply Farm inputs supply Foods and livelihood supports
North-Central Zone		
States	**NGO's Name**	**Activities in the state**
Kogi	Action Aid/PIBCID	Trainings
	CARI	Trainings
Benue	SASAKAWAG2000	Extension, crop improvement on rice and cassava
	GIZ	Extension and trainings for farm families
	SYNERGES	Extension and trainings
Plateau	CRUDAN	Agricultural services
	ASTC	Agric. extension
	NVRI	Veterinary services
	GIZ	Farmers trainings
Niger	VSO	Extension services on soybeans and maize
Kwara	ACTION AID and CCEPE	Training and empowerm ents of women processors of cassava ,maize and Sheabutter
Nasarawa	YMCA	Demonstration crop production, livestock, agroforestry, bee keeping and private extension services
Taraba	BASF	Demonstrations of technologies
Southwest Zone		
States	**NGO's Name**	**Activities in the state**
ONDO	JDPC	Training of farmers
Oyo	Harvest Plus	Cassava weed management
Ekiti	T12-SSAB JDPI	Training of farmers Training of farmers
Lagos 1. 2.	Dangote foundation BATN ALDAAQUA COWAN	Product Development and Empowerment Product Development and Empowerment Fish Feed support Loan Empowerment

Ogun	AGRIQ CAVATNIG SAWEE GIZ SG2000	Micro credit/ community-based extension services
		Capacity building, linkages of cassava farmers to end users
		Promotion of vitamins A crops
		Crop production and demonstration
		Crop production enhancement
Osun	NA	NA

Southeast Zone		
States	**NGO's Name**	**Activities in the state**
Enugu	CIDJAP	Trainings and facilitating credits
	Women for Women	Women empowerment
	ASRIDE	Extension services
Imo	EZE EMASON NWAOSU	Fish production
	MID FARMS	Fish production
	SIX-C-FARMS	Rice production
	UJU-NGOZI	Crops extension
Anambra	SASAKAWAG2000	Extension activities on cassava and rice
Abia	NA	NA
Ebonyi	NA	NA

South-South Zone		
States	**NGO's Name**	**Activities in the state**
Rivers	Agricultural Entrepreneur Association of Nigeria	Agric Support, advisory and consultancy services
	Institute of Export operation and management	Training agricultural extension and advisory services
Cross Rivers	SASAKAWA A frica Association	Extension in Rice and Cassava
	GIZ	FBS
Akwa Ibom	DOMITA	Fisheries extension services
	VIKAS	Fisheries extension services
Delta	MARKETII	Training and empowerment of women group Training of youth on fisheries

Edo	USAID LAPO MADE GIZ	Training of Farmers Credit and Extension Support to farmers Sponsorship of processing equipment Training farmers
Bayelsa	Na	NA

Problems Needing Research

The 2018 survey identified problems needing research/interventions as presented in Table 12.6. Problems in the areas of crops, livestock, fisheries, irrigation, agroforestry and mechanisation were enumerated**.** Majority of the states in the South-South and South East zones indicated areas of research on crop pest and diseases control, fish feeds formulation and alternative sources from local raw materials, snail feeds formulation and high breeds of fingerlings and small ruminants' animals. The major problems needing research interventions in the North West and North East were livestock and crop disease control, irrigation water management techniques, strategies to mitigate effect of flooding on agricultural productions and fish feeds formulations. The North central reported needs to research on conflict resolution between farmers and herdsmen.

Table 12.6: Problems Needing Research in each state

NORTHWEST ZONE		
States	**Problem**	**Areas needing research**
Zamfara	Livestock	Livestock diseases preventive measures
	Irrigation	Water management techniques
Katsina	Fish	Improved highly prolific fingerlings production Fish feeds formulation
	Crop	Control of Tuta absoluta Seed spacing and recommendation
Kebbi	Livestock	Livestock disease control and prevention
	Crop	Strategies to mitigate effect of flooding on agricultural production Areas of biotechnology
	Extension	Extension value chain
Kaduna	Crop	Improve farmers skill on modern preservation techniques
	Livestock	Disease and pest control in ruminants
		Poultry feed formulation
	Fishery	Feeds formulation

Kano	Extension	Value chain extension delivery system
		Innovation platform
Jigawa	Crop	Drought Tolerance Grains High yielding crop varieties Disease and pests resistant crop varieties
Sokoto	Extension	e-extension extension methodology
NORTHEAST ZONE		
States	**Problem**	**Areas needing research**
Adamawa	Poultry and livestock	Improved breeds of poultry Adaptable pasture seeds
Gombe	Crop	Adoption studies on insect resistant on tomato crop
	Irrigation	Effects of soil saline soil on crops
	Livestock	Local raw materials as feed ingredients
		Genetic improvement of local breeds
Bauchi	Crop	Effective striga control technology
		Determination of drought resistance and early maturity crop varieties
		Heat tolerant tomato variety development
		Determination of soil nutrients availability
	Fishery	Cross breeding of Hetrobranchus/clarias
		Fingerlings production breeding
	Mechanisation	Effects and availability of power tillers on crop production
Borno	NA	NA
Yobe	Crop	Adaptation to various ecology and storab ility of crops, pest and diseases
	Livestock	Livestock feeds
	Fish	Fish feeds and fisheries disease
	Mechanization	New improved machineries for planting processing and storage
NORTH-CENTRAL ZONE		
States	Problem	Areas needing research
	Livestock	Resolve conflict between herdsmen and farmers
		Hydrophonic pasture production
	Fish	Feeds formulation using local raw materials
	Crop	optimum fertilizer utilization techniques
Kwara	Extension	Extension communication development
Kogi	Crop	Establishment of OFAR
	Fishery	Improved cat fish species production techniques
	Livestock	Improved breeds resistant to diseases

Niger	Crop	Rice spacing and farm layout techniques
SOUTHWEST ZONE		
States	**Problem**	**Areas needing research**
Ondo	Irrigation	improved farm machineries
Oyo	Crop	Army worms control techniques
	Fish	Feeds formulation
Ekiti	Crop	Control techniques in Fall army warm in maize
	Livestock	In breeding techniques Rabbit Production
	Fish	Fish feed formulation
Lagos	Crop	Prevention and control of army worm
		Prevention and control Die back in tomatoes fruit
	Livestock	Alternative cheap sources of energy and protein in feeds
	Fish	Alternative cheap sources of energy and protein in feeds Cheap and adaptable WESAFU(Tilapia)
	Agroforestry	Appropriate fertilizer requirement for tree crops (kolanut, citrus)
	Irrigation	Improved technology on drip irrigation system
Ogun	Crop	Effective control of army warm on maize
		Effective weed control measures in rice production
	Livestock	Up-grading of sheep and goats with emphasis on nutrition
	Fish	Value addition in fish production
	Mechanization	Simple farm machineries for farm operations
Osun	NA	NA
SOUTHEAST ZONE		
States	**Problem**	**Areas needing research**
Enugu	Crop	Cocoyam infestation
	Livestock	Improvement to cross breed local goat with exotic breed
	Fish	Production of feeds
	Irrigation	Local sources for fabrication equipment
Ebonyi	Crop	Line transplanting
		African gull midge in rice
		Stem borer prevention and control
	Fish	High breed of fingerlings
		Fast maturity and fertility of fish
		Feeds formulation

Imo	Crop	Prevention and control of cocoyam leaves and root rots
		Cocoyam leave and root rots
	Livestock	Improved up -grading of livestock and feeds
Anambra	NA	NA
Abia	Crop	Prevention and control of fall army worm
	Fishery	Alternative sources of fish feeds

SOUTH-SOUTH ZONE		
States	**Problem**	**Areas needing research**
Rivers	Livestock	Optimum combination levels of concentra te feeds and forages in the reproductive of rabbits
	Fish	Breeding and Stocking of fingerlings on brackish water
	Agroforestry	Improved Quality Honey bee keeping and Production
		On-farm evaluation of Neem leaf extract as an alternative insecticide for production of Telferia
		Evaluation and economic value of Nypa-Palm
Cross Rivers	Crop	Correct formulation and dosage for crop pest control
	Poultry	feed formulation for heat stressed birds
	Fish feeds	Aquaculture production using local ingredients
	Extension	Need assessment survey
		extension communication technique and skills
Bayelsa	Crop	Storage of cocoyam
	Fish	Improved Fingerlings production
		On farm evaluation of enriched sweet potato
	Livestock	Snail feeds formulation
Akwa Ibom	Livestock	Snail feeds from local raw materials
Delta	Crop	Control and prevention of Army worm on maize
		Control and prevention of black siga toka disease in plantain
		Control and prevention of Tuta Absoluta in tomato
Edo	Fish	Feeds Formulation
	Agroforestry	Best practice of vegetative propagation Adoption of Agro -Forestry technology e.g. use of leguminous plant as hedge roll
	Irrigation	Water rate requirement for various crops Irrigation management in rice fields
	Mechanisatio n	Use of mechanical weeder Mechanized palm oil production for small palm oil processor
	Extension	Mainstreaming (CDD) community Development Driven in Extension

Source: NAERLS, Agricultural Performance Survey, 2018

Training Needs

The 2018 training needs of ADPs across all the zones are presented in Table 12.7. Majority of the states indicated capacity building in extension communication skills, ICTs, improved mushroom production techniques, green house farming techniques and post-harvest and processing equipment handling techniques, agribusiness and value addition, operation and maintenance skills of irrigation equipment were the major areas needing interventions. The category of staff requiring the trainings ranges from management cadre to extension agent's states. Some states were not precise in the nature of training required by their staff, as they only mentioned short- and long-term trainings.

Table 12.7: Trainings and Training Needs in Nigeria

NORTHWEST ZONE				
			Number of personnel	
States	Training Subject Matter	Category of personnel in need of training	2017	2018
Zamfara	Pest control techniques	Extension agents		50
	Livestock production techniques	Extension agents		25
	Training in value chain	SMS/EAs		40
	Entrepreneur	SMS		10
	Bee keeping	SMS		5
Katsina	Agri-Business and value addition	BES and EAs		50
	Post-harvest handling	BES and EAs		50
	Spraying techniques	EAs		34
Kebbi	Pest control technique	EAs		50
	Production technique	EAs		25
Kaduna	Use of pesticides	EAs		20
	Communication skill	EAs		20
	Animal nutrition	EAs		20
Jigawa	Efficient supervision	Agric. Extension staff		19
	Effective use of APS	Senior enumerators		30
	Land use and utilization of fertilizers	RIDAS		27
Kano	NA	NA		NA
Sokoto	NA	NA		NA

NORTHEAST ZONE				
States	Training Subject Matter	Category of personnel in need of training	Number of personnel 2017	2018
Bauchi	Computer operation and internet connectivity	All staff		540
	Questionnaire production, data entry and analysis	PME staff ,		60
	Operation and maintenance of irrigation water pumps	Extension Agents and Farmers		
	Pest and disease identification and control			1000
	Group dynamics			
Borno	NA	NA		NA
Yobe	Improved agronomic practices	SMS,VEA,EAs		200
Gombe	NA	NA		NA
Adamawa	NA	NA		NA

NORTH-CENTRAL ZONE				
States	Training Subject Matter	Category of personnel in need of training	Number of personnel 2017	2018
KWARA	Sensitization workshop on Anchor Borrowers Programme	Farmers		5,000
Kogi	NA	NA	NA	NA
Benue	NA	NA	NA	NA
Plateau	NA	NA	NA	NA
Niger	Improved Productivity skills	Junior Technical staff	NA	50
Nasarawa	NA	NA	NA	NA
Taraba	NA	NA	NA	NA

SOUTHWEST ZONE				
States	Training Subject Matter	Category of personnel in need of training	Number of personnel 2017	2018
Ondo	Communication skils	Extension agents		100
	Managerial course	Directors/ Deputy Directors		10
	Post-harvest Technology	Agric Officers		50
	Monitoring and Evaluation	M & E staff		10
Oyo	Digital Media production	Senior Technician		3
Ekiti	Managerial skill	Management staff		12
	Computer analysis	Management/field officers		76
	Agricultural value chain development	Management/field officers		76
Lagos	Proper extension report writing	Extension supervisors		16
	Extension communication	Extension officers		90
	Extension methodology	Extension officers		90

	Proper extension report writing	Extension supervisors		16
	Extension communication	Extension officers		90
	Extension methodology	Extension officers		90
	e-extension on interactive voice system	Extension officers		90
Lagos	Advanced management courses	Head Extension, HFA and HWIA		3
	Climate change adaptation methods	SMS		15
	Extension communication and knowledge management	EAs		7
Ogun	Agricultural data analysis	PME officers		7
Osun	NA	NA	NA	NA

SOUTHEAST ZONE				
States	**Training Subject Matter**	**Category of personnel in need of training**	**Number of personnel**	
			2017	**2018**
	Usage of the ICT-Tablets	M & E staff and Extension agents		50
	Skill Gaps Analysis	Management staff		15
Imo	Soft wares analytical development system	Directors		12
Enugu	Agronomic practices	Extension agents		400
	Improved Income generating activities	Head WIA and women and youth farmers		360
Abia	NA	NA		NA
Anambra	NA	NA		NA
Ebonyi	Extension technologies skill	ZEO,BES,EAs		275
	ICT	MPA officers		30
	Project management skills	Management staff		11

SOUTH-SOUTH ZONE				
States	**Training Subject Matter**	**Category in need of training**	**Number of personnel**	
			2017	**2018**
	Sustainable e-agriculture	All SMS		25
	Extension communication	Extension agents		50
	Managerial Skill	Directors		8
	Data processing and analysis	Management staff		40
Rivers	Leadership and group Dynamics	SMS/ZMs		7
	Mush room production techniques	Extension agents		200
Akwa Ibom	Green house farming techniques	Zonal managers		6

	Formulation of floating feeds	EAs		12
Bayelsa	Agri-business	EAs/farmers		200
	Pest and disease control techniques	Extension officers		NA
	Radio and TV production techniques	Communication officers		NA
Delta	ICT	All staff		250
	Mush room Production technique	Extension staff		100
	Organic Farming technique	Extension staff		100
Cross River	Effective extension communication	Extension staff		40
	Cost Effectiveness Extension GAP and cocoa production	EAs and technical staff		15
	Fertilizer optimization tool	DAEs		1
	Training of trainers on catfish production/processing	EAs, CPO		15
	Aquaculture Value Chain	EAs		20
	Value Re -orientation, Ethics and Altitudinal Change in the World Place	Admin-Officers		1
	Office Equipment maintenance and management	Operators and Technicians		2
	Managing and Training Function	Training Executive coordinator		1
	Techniques for Advanced Record Keeping, Registry Management and correspondence	Clerical Staff (Registry)		4
	Defensive Driving, Safe Monitoring and Communication skills for Drivers	Drivers		6
	Understanding Stores, Inventory, E-procurement and Logistic Management	Store Officer		1
	Security and Safety Skills for Security Personnel	Security Guards		3
	Training Needs Analysis	Training Officer		1
	Fundamental of Office Administration for Effective Leadership in an Organization	Director of Administration and Training		1
	Understanding Payroll, Salaries, Wages and Pension Administration and Accounts	Accounts Clerks		5

Source: NAERLS, Agricultural Performance Survey, 2018

Media programmes

The 2018 agricultural performance appraised media programmes proposed and the level of achievements recorded by the ADPs across the zones. Most State ADPs proposed and sponsored weekly radio programmes on agricultural activities (Table 12.8). The cost of airing the programmes varies from one state to another with an average of 1.2million to 2.0million per annum. The average aired duration was between 25-30mins, FRCN and other states owned radio stations were the major stations airing the programmes. Information on production, market, value addition and farm inputs were some of the messages aired to the farmers. Apart from the radio, social media platform such as WhatsApp are also used occasionally for extension activities. However, television and radio as means of extending information are still relevant and more perceived by farmers in most states. Major challenges for not using social media platform were attributed to poor network in some rural areas which might Limits farmers access to the platform.

Table 12.8: Radio Programmes

NORTHWEST									
State	**Programmes**	**No. Proposed**		**No. achieved**		**Station Aired**	**Programme duration**	**Cost of Airing per annum**	**Sponsor**
		2017	**2018**	**2017**	**2018**				
KATSINA	KARTAU SARKIN NOMA	52	52	52	33	State radio	30mins	120,000	KTARDA
KEBBI	SALAMA. M	50	50	40	45	KEBBIRAD	30mins	NA	KARDA
	IFAD TAKEKA	50	50	35	40	KEBBIRAD	30mins	NA	IFAD
	NADUKE	50	50	30	36	KEBBIRAD	30mins	NA	MOA
	DONMANOMA	50	50	30	33	FM	30mins	NA	MOA
KADUNA	NOMA BABBA SANA'A	104	104	104		NAGARTA	15mins	2.7m	KADA
	KASAURARA MANOMA	NA	104	NA	30	FRCN	15mins	2.906m	KADA
KANO	HARAMA MANOMA	48	48	NA	NA	RADION KANO	30mins	NA	Kano State Govt.
	INA MANOMA	48	48	NA	NA	FRCN	15mins	NA	Kano State Govt.

NIGER	Uses and handling of chemicals	52	52	50	30	NTA Minna	25mins	2,000,000	NAMDA
	Livestock and fisheries half hour	48	48	13	NA	NTA Minna	30mins	1.8million	Ministry of Livestock and Fisheries
KOGI	Farmers forum	52	52	NA	NA	RadioKogi	30mins	2,080,000	ADP
NASARAWA		24	24	3	5	NBS	30mins	NA	Free airing
SOUTHWEST									
State	**Programmes**	**No. Proposed**		**No. achieved**		**Station Aired**	**Programme duration**	**Cost of Airing per annum**	**Sponsor**
		2017	**2018**	**2017**	**2018**				
LAGOS		52	NA	28	NA	Radio lagos	30mins	1,440,000	LSADA/FADAMA
EKITI	ASBELOHA	300	300	300	156	BSES	10mins	1.2million	ADP
OSUN	AYE AGBA	52	52	NA	NA	OSRC	15mins	1million	ADP
ONDO	KAJE KAYO	104	104	NA	NA	Positive FM	30mins	1million	State Govt.
OGUN	AGBEAFOHOSON	52	52	30	12	OGBC	15mins	10,500.00	OGADP
OYO	ISE AGBE	52	52	NA	NA	FM	15mins	NA	OYOSG

SOUTHEAST									
State	**Programmes**	**No. Proposed**		**No. achieved**		**Station Aired**	**Programme duration**	**Cost of Airing per annum**	**Sponsor**
		2017	**2018**	**2017**	**2018**				
ENUGU	Poultry production	12	12	2	NA	ESBS	20mins	NA	ESBS
IMO	Bee-Keeping Fish Rearing Cassava Production and Processing	12	24	5	2	Heartland FM	30min	NA	IMOADP
ABIA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ANAMBRA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EBONYI	OGE NDIORUBI	48	50	NA	NA	NA	NA	NA	NA
SOUTH-SOUTH									
State	**Programmes**	**No. Proposed**		**No. achieved**		**Station Aired**	**Programme duration**	**Cost of Airing per annum**	**Sponsor**
		2017	**2018**	**2017**	**2018**				
CROSS RIVER	Discussion	48	48	4	6	CRBC	15mins	1.2million	CRSG
RIVERS	Pro-Vitamin Potatoe	80	NA	60	NA	AIT	30mins	NA	ADP
AKWA IBOM	NA	NA	NA	NA	NA	NA	NA	NA	NA
DELTA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BAYELSA	Agric Hour	2	4	1	2	97.1 FM	60mins	NA	NA
EDO	Farming Hints	52	52	52	35	EBS	25 minutes	N600,000	Edo ADP

Table 12.9a: Special FG intervention in agricultural activities

Type of intervention	States	Major activities	Total Number of beneficiaries deployed as at 2017	Number of beneficiaries as at 2018	Major challenges	Efforts to reduce challenges
Agro-N Power	OYO	Extension activities	1,637	1661	Difficulty in enforcement of discipline	Advisory role
	RIVERS	Teaching of technological recommendations in crop, livestock and fisheries	1,557	3,195	Funds for practical logistics	Complaint reported to appropriate authorities
	OGUN	Extension activities	849	660	Inadequate training facilities/venues	ADP provided alternative venue
	ABIA	Extension activities	630	2,394	Deployed Participants are not members of the community	Redeployments of participants
	NASARAWA	Extension activities	883	2496	Funds	
	LAGOS	Extension activities	1,964	2,083	Late reporting of beneficiaries to duty	Focal officers to working hand in hand with ADP
	GOMBE	Extension activities	497	1,288	Beneficiaries were concentrated in states capital	Posting to rural areas

	BAUCHI	Extension activities	1,196	3,445	Inadequate supervision	Monthly interactions
	ONDO	Dissemination of agricultural information	813	640	NA	NA
	DELTA		1,206	4453	Skill gaps Cultural variation	Fortnightly trainings

The 2018 surveyed FG special interventions in agricultural activities. From the states that provided information on level of engagement of Agro-N Power programme, most of the beneficiaries are involved in agricultural extension activities such as teaching of technological recommendations on crop, livestock and fisheries, dissemination of other agricultural activities and facilitations on farm inputs sources. Information on total number of participants deployed to each state as at 2017 compared to number of beneficiaries in 2018 were analysed. The survey showed in Oyo state, 1,637 was deployed to the state as at 2017, but 1661 beneficiaries were reported and participated in extension activities. In Delta state,1,206 was deployed in 2017, however, in 2018 the number of beneficiaries on ground was 4453. The scheme had contributed to the extension activities of the states through extension agents' contact with farmers. Major challenges of Agro-N Power participants include; difficulty in enforcement of discipline, inadequate training facilities/venues, late reporting of beneficiaries to duty, inadequate supervisions and skill gabs especially non-agriculture-based participants as well as cultural variation.

Table 12.9b Special FG intervention in agricultural activities

Type of intervention	State	Targeted beneficiaries	Number of beneficiaries	Major challenges	Efforts to reduce challenges
Anchor-borrower scheme	ABIA	NA	868	Land tenure	Use of communal land
	LAGOS	NA	2,639	Poor repayment Side selling	Aggressive loan recovery drive
	NASARAWA	NA	3850	Late disbursement of funds/loan	Advise to commence early
	GOMBE	37,000	NA	Management of groups	Advisory services
	BAUCHI	10,000	10,117	Group formation No capacity bu ilding of farmers group	Advisory and sensitisation visits to farmers

13.0 GENERAL CONSTRAINTS TO AGRICULTURAL PRODUCTION

The general constraints or challenges to agricultural production in 2018are presented according to their spread by states under seven (7) categories: weather, inputs, production/labour, mechanization, extension activities, agricultural broadcasts, e-extension, and insecurity.

1. Challenges of weather to agricultural activities

In recent years, issues regarding the impact of climate change (especially soil fertility, aridity and rainfall) on agricultural production have gained prominence in intellectual and development discourses. Figure 13.1 shows that there were several weather-related constraints to agricultural productivity. Severe flooding was experienced in 27 statesacross the country. All the states in the south-south, as well as six (6) statesof the north-central were ravaged by flooding 2018.The flooding notwithstanding, about sixteen (16) states recorded prolonged dry spells, with the highest prevalence in the northwest and northeast. Moreover, out of the six (6) states that recorded poor rainfall distribution in 2018, two (2) were in the northeast, while one each was in the north-west, south-west, south-east and south-south.

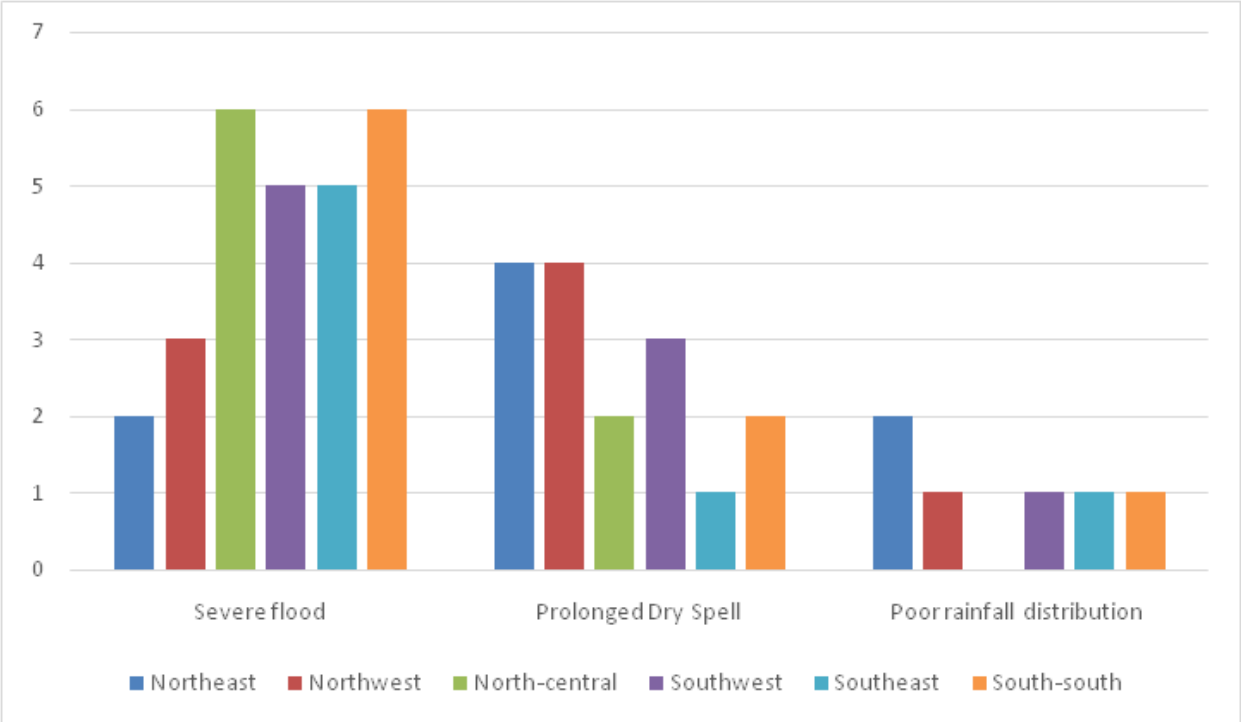


Figure 13.1: Challenges of Weather to Agricultural Activities

2. Farm Input availability and accessibility

It is known that agricultural productivity level along the value chain is directly dependent on availability of quality inputsn such as fertilizers, herbicides, seeds, animal stocks, fingerlings, fishing nets, etc. For the 2018 agricultural performance survey data, Figure 13.2 shows that government provided inputs (fertilizers, herbicides, vaccines) were largely unavailable in 22states, while seeds (cuttings, seeds, stocks, etc), were not available in 20 ststes. Among the few states that provided the some of the inputs were not affordable to farmers; were untimely delivered, inadequate and adulterated especially for agro-chemicals and seeds.

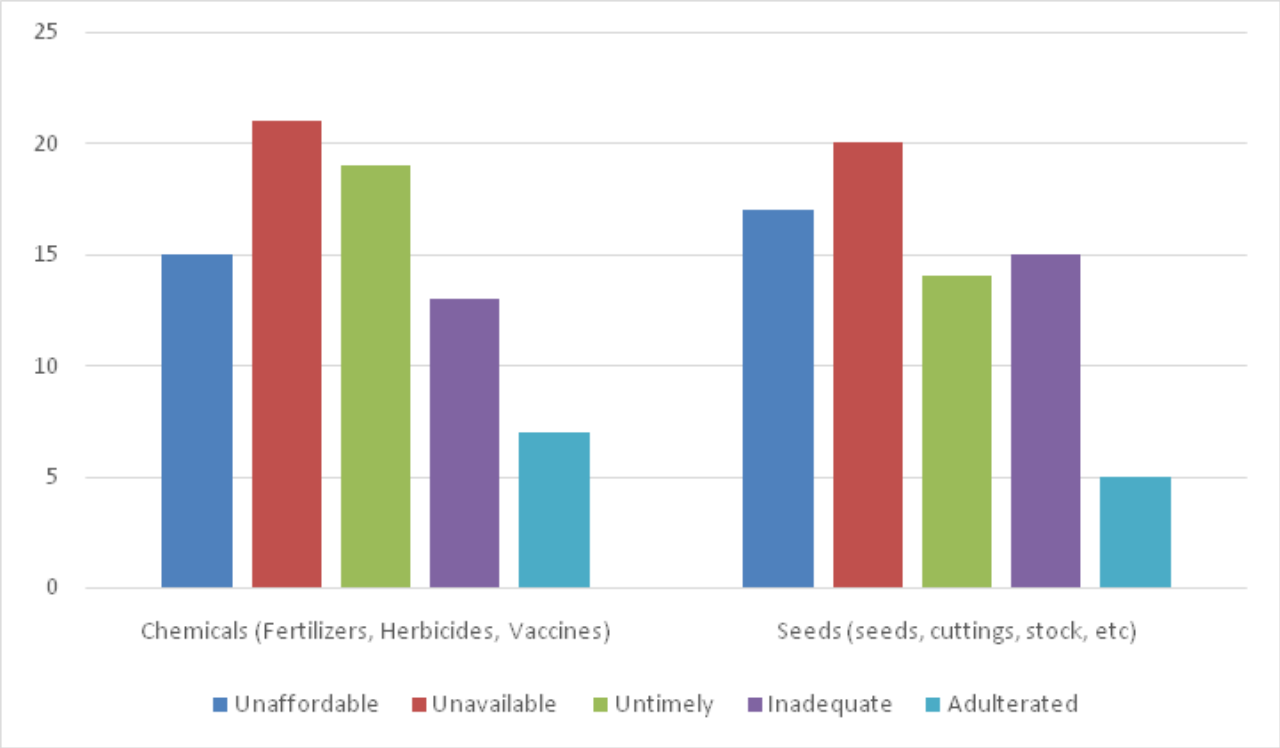


Figure 13.2: Farm Input-related challenges

3. Production-related challenges (land, labour and diseases)

Figure 13. 3 shows that the highest challenge to agricultural production for 2018 was high cost of labour (both manual and mechanical), as 34 of the 36 states and the Federal Capital Territory reported dramatic increases in costs of labour. The high cost tended to impede or limit agricultural activities/ investments. High prevalence of crop pests and diseases was also reported to be constraining production in 24 states, while high prevalence of livestock diseases was reported in 18 states of the Federation. Generally, there was widespread infestation of fall army worms and stem borers on maize and beetle attack on yam, as well as foot and mouth disease on cattle.

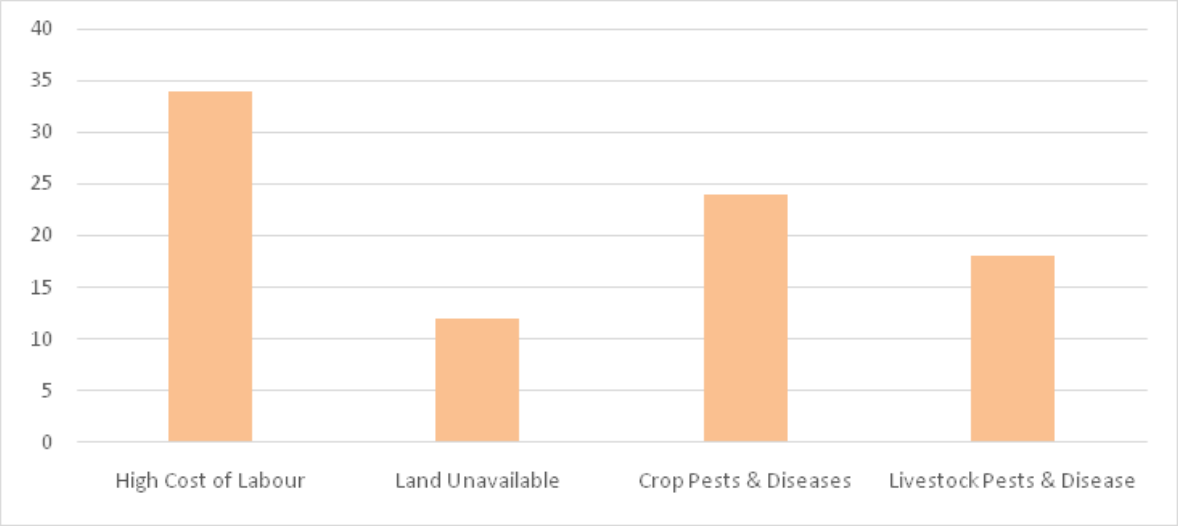


Figure 13.3: Selected Production Constraints

4. Agricultural Mechanization

The data on agricultural mechanization for 2018 were not too different from those of 2017, as shown in Figure 13.4. The data show that majority of farmers in 31states and the FCT could not access tractor services due to high cost of hiring. Also, in 30 states, tractors were not available or accessible to farmers, while in 16 states poor irrigation facilities are strongly impeding agricultural productivity. This has made the Nigerian agricultural sector to be dominated by manual methods of production, processing and marketing. Such drudgery limits the prospects of the sector, making it unattractive to investors and uncompetitive as an economic venture.

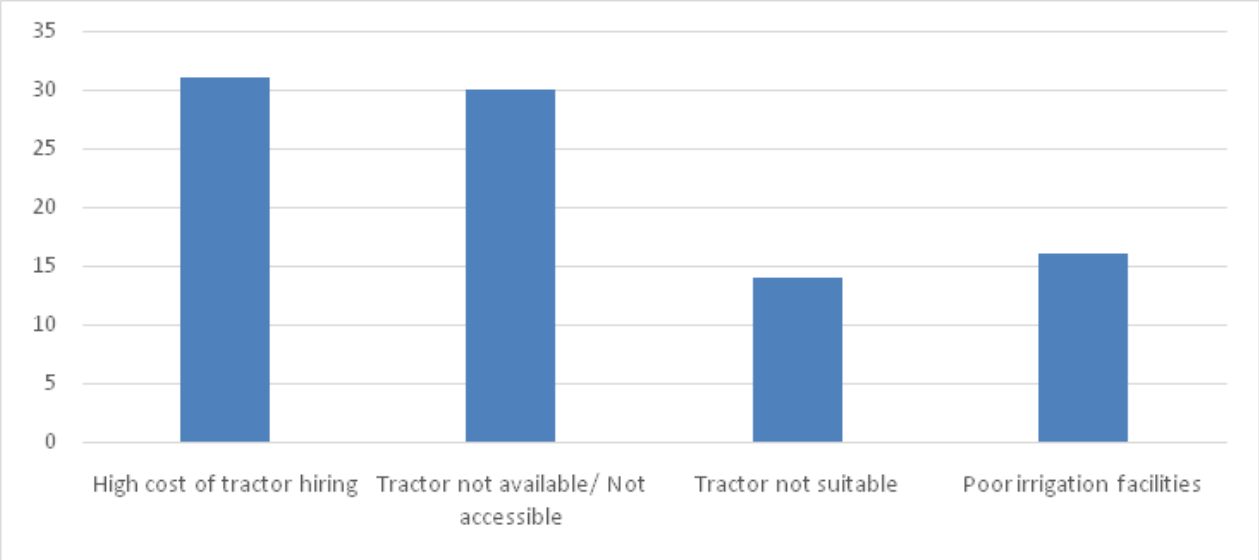


Figure 13.4: Constraints of Farm Mechanization

5. Extension Services

Extension is the component for linking all agencies involved in planned development works in the agricultural sector, such as farmers, agricultural policy planners, development administrators, agricultural subject specialists, media representatives and researchers. The ultimate goal of agricultural research and technology development is utilization; hence, the underlying reason for gaining and then disseminating new research-based information is to assure it is appropriately considered for use in reaching decisions, making changes, and taking other specific actions designed to improve outcomes. This noble role is performed in Nigeria mainly by Agricultural Development Programmes (ADPs) in each state and the FCT. ADPs implement government agricultural projects through facilitation and education of farmers in utilizing improved technologies for better farm outputs.

From Figure 13.5, the 2018 situation showed that just as it has been reported since 2011, Nigeria has not fared well in adequately supporting extension service delivery, especially in the critical areas of personnel and funding. The major recurrent challenge faced by ADPs was inadequate capacity building for staff as reported by 34 states. This was followed by inadequate staffing (33 ADPs), and non-payment of counterpart fund (32 ADPs). Also, about 25 ADPs had zero fund release for the year 2018, while of the 12 ADPs that had fund released for their activities, such funds were grossly inadequate in 10 states. There was also the challenge of encroachment into ADP activities by state ministries of agriculture.

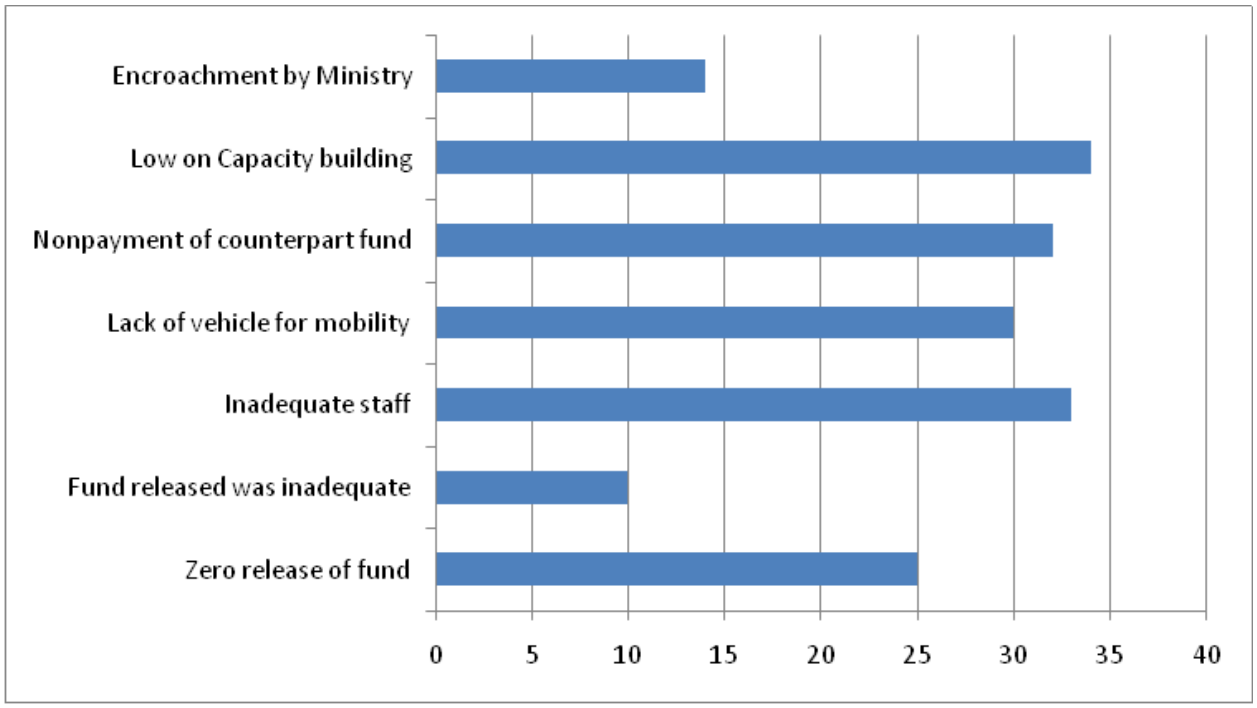


Figure 13.5: Constraints to ADP Activities

6. Agricultural Broadcast

The state ADPs have as primary mandate, the dissemination of agricultural information through conventional and news media to Nigerian farmers in the languages and formats they are familiar with. However, the near-absence of financial and other resources have constrained the ADPs in their responsibilities on agricultural broadcasts. Consequently, Nigerian farmers are largely left without the requisite information for quality agricultural production decisions. Figure 13.6 shows that all the 36 ststes and the FCT ADPs were not able to air agricultural programmes due to high cost of airtime, while 30 of them were constrained by lack of equipment. Also, farmers in 12 states indicated that even where such programmes (produced mainly by other organizations like NGOs) were available it was difficult accessing the channels coupled with the fact that the times of broadcast were not appropriate.

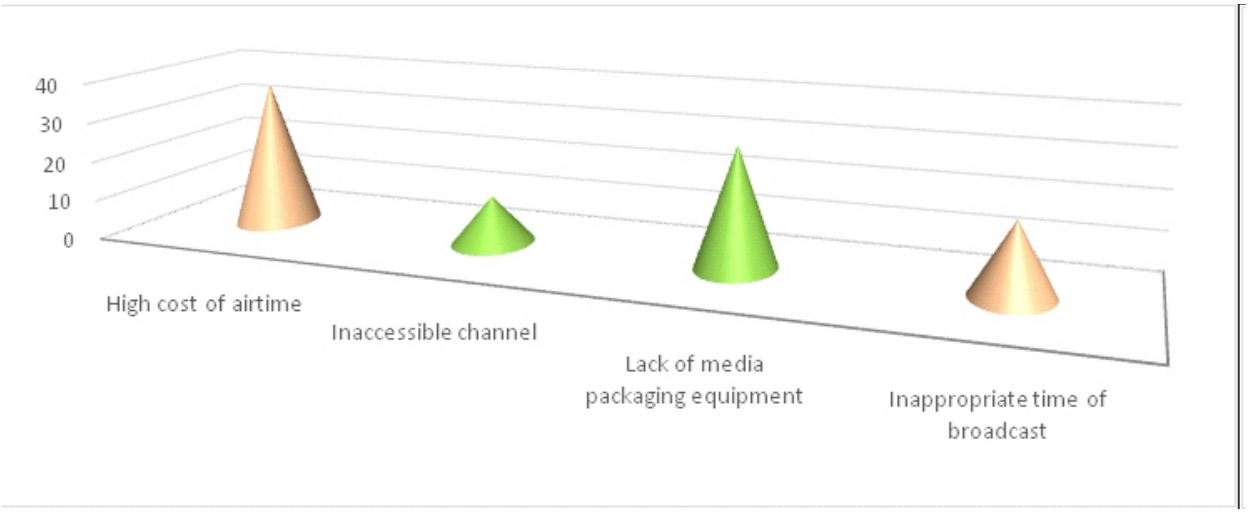


Figure 13.6: Constraints of Agricultural Broadcasts

7. E-Extension

Agricultural advisory service provision, as traditionally carried out by extension agencies is gradually been revolutionalized with the advent of e-extension by using modern information and communication technologies. Therefore, the effectiveness of today's agriculture in meeting the food and economic needs of people depends largely on its ability to deliver on-time and real-time information along the value chain, with the component of immediate feedback mechanism. Figure 13.7 revealed that the ADP staff are heavily constrained in the use of e-extension channels. The major constraints are high cost of data (reported by 32 state ADPs), lack of support infrastructures (30 ADPs) and poor network connectivity (27 ADPs). The implication of this is that Nigerian farmers have very limited access to agricultural information in 2018.

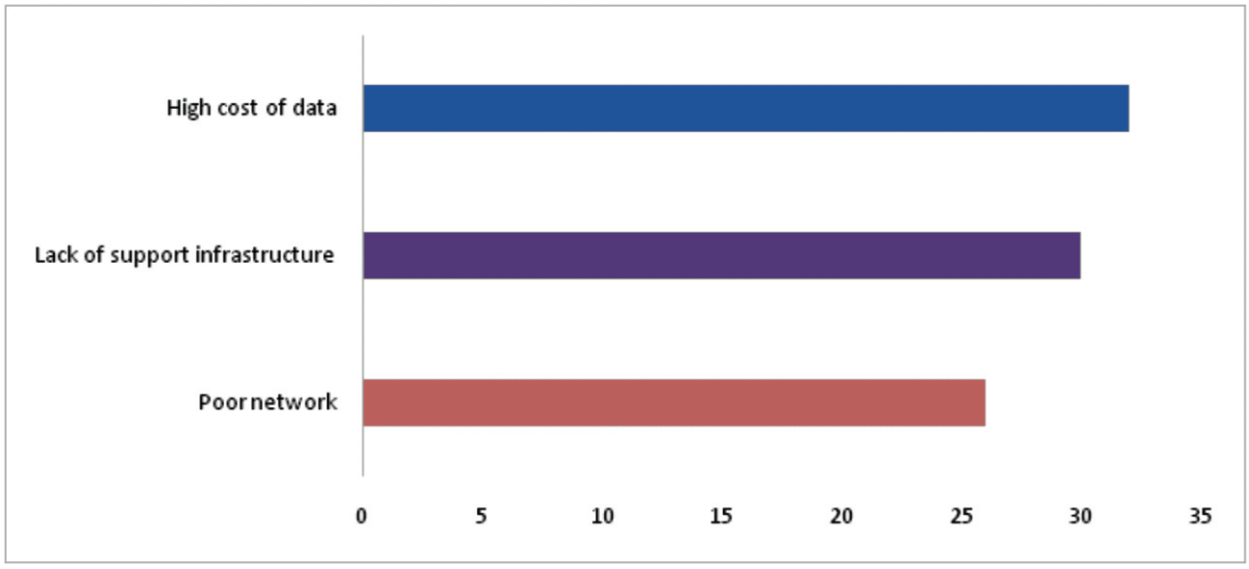


Figure 13.7: Challenges on e-Extension

8. Security-related Challenge

Violent conflicts have several consequences in economic development. More often than not, restiveness, terror attacks and militancy especially in the rural areas mostly affect agricultural productivity and the cottage industry. On the other hand, intensification of agricultural development programmes leads to economic diversification, and therefore, reduction inrestive agitations or communal unrests in any society. The peace action resulting from such economic progress would almost always act as incentives for more foreign direct investment and a factor for accelerating national economic growth. The results of the 2018 survey with regard to security-related challenges to agricultural productivity in the country showed that governmentneed to do much more in improving the security of lives and properties across the country in order to promote agricultural development. Figure 13.8 revealed that agricultural activities were heavily compromised in 25 states by the persistent crisis between herdsmen and farmers, while 10 states reported cattle rustling as a major challenge. Furthermore, farmers in 8 states asserted that communal clashes and insurgency/militancy were constraining factors to agricultural activities in the year.Although the security situation seems to have improved over that of 2017, government needs to intensify efforts and strategy in containing to the barest minimum these socioeconomic menaces that have caused farming communities to abandon their homes and farmlands.

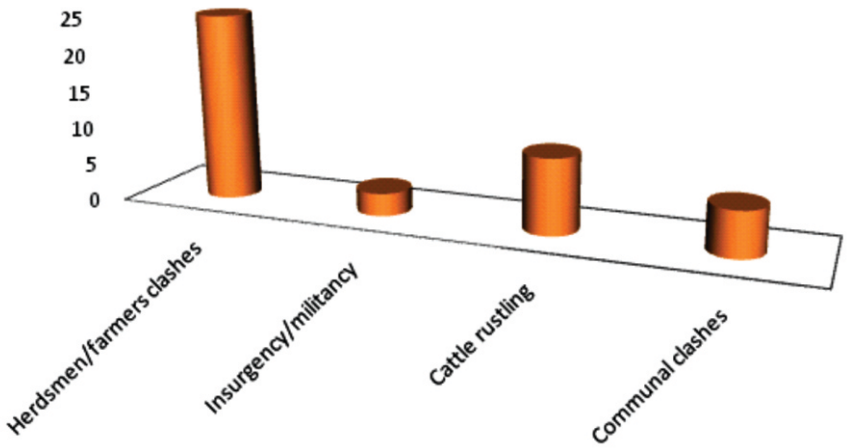


Figure 13.8: Security-related challenges to agricultural activities

14.0 FLOOD DAMAGE ASSESSMENT IN SOME STATES IN NIGERIA

14.1 Preamble

Information obtained from 2018 Agricultural Performance Survey (APS), Newspapers, Radio and Television reported occurrence of flood in all the states of Nigeria. The National Emergency Management Agency declared 12 States along Rivers Niger and Benue as worst affected by flood disaster in 2018. The worst affected states are Benue, Kogi, Niger, Kwara, Anambra, Delta, Bayelsa, Rivers, Adamawa, Kwara, Kebbi and Taraba.

NIMET reported that torrential rain in the northern and central parts of the country coincided with higher river levels to lead to flood situations in many parts of Nigeria. Deleterious effects of human activities such as blockage of drainage systems and poor urban planning on the environment exaxcerbated the flooding situation in many cities. Rivers Niger and Benue overflowed their banks leaving some parts of the country exposed to large scale floods. High flow from the upper catchment of the Niger basin were reported NHSA to advance down to Nigeria, necessitating Shiroro, Kainji and Jebba Dams to spill water downstream in September. Total volume flow reported at Koulikoro (representing the Upper Niger basin, the hydrological situation) from 1st June to 31 st October 2018 was about 33.21 billion m^3. This volume was higher than those recorded in the years 2016/2017 and 2017/2018. A maximum flow was 4545 m3 /s observed on 6th October and a minimum of 1978 m3 /s was recorded on the 31st October 2018, while the mean flow was 3692 m3 /s equivalent of a monthly volume of 9.9 billion m^3.

Lokoja station is the reference point for water situation in Nigeria and is of critical importance to hydrological decisions. The flow discharge situation in Nigeria at Lokoja has been receding with a minimum water level and discharge of 3.25m and 3390 m3/s respectively at the end of 31st December 2018. The maximum flood water level of 11.22m and discharge of 25,212m3/s was attained on 20th September 2018 in the zone of Red Alert which was higher than that recorded in 2017 but lower than that in 2012 as shown in Comparative Hydrographs of river Niger and Benue at Lokoja (Fig 14.1).

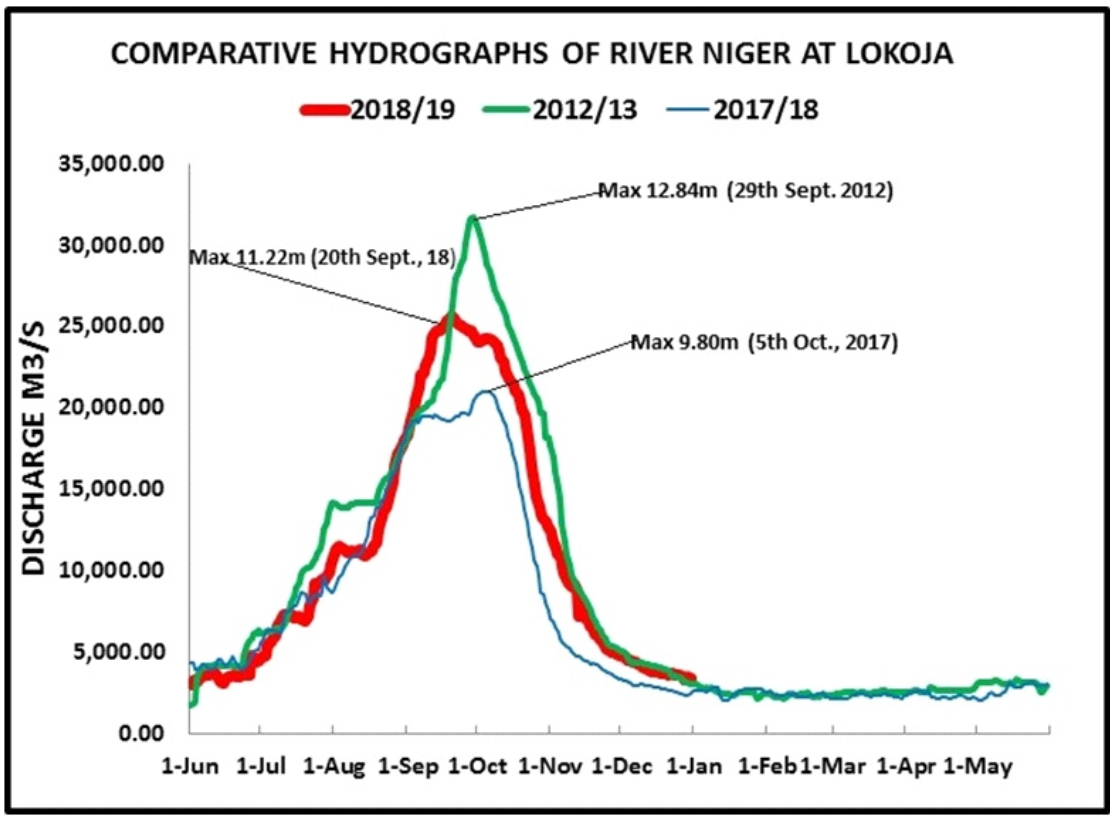


Fig 14.1: Comparative Hydrographs of Rivers Niger and Benue at Lokoja
Source: NHSA (2018)

14.2 Impacts of the 2018 Flood Disaster on Agriculture

14.2.1 Loss of Cultivated Crops to Floods during 2018 Wet Season

A) Rice

The cropped area for rice destroyed and the estimated output values for the states visited during the survey are presented in Table 14.1. From the table, all the 9 states visited incur severe damage of rice fields, resulting in loss of crop value ranging from hundreds of millions to even billons of Naira. The highest loss incurred was in Kebbi State where 113,333ha of paddy was with estimated yield value of N28,931,134,264 BN were submerged by the flood and completely wiped away. This was followed by Niger state with a paddy yield loss value of N6, 347,511,558BN. The lowest yield value loss of paddy rice (N236, 078,743M) was from Delta State.

Table 14.1: Loss of cultivated rice to floods during 2018 wet season

S/N	State	Crop area affected (ha)	Estimated yield lost (MT)*	Estimated yield lost value (N)*
1	Adamawa	4097.5	7085.22	956,505,304
2	Bayalsa	20,000	37497.89	5,062,214,492
3	Delta	1000	1748.73	236,078,743
4	Ebonyi	31120	65974.40	8,906,544,000
5	Jigawa	NA	NA	NA
6	Kebbi	113,333	214,304.7	28,931,134,264
7	Kogi	15,000	28,314.31	3,822,431,426
8	Niger	20,000	47,018.60	6,347,511,558
9	Rivers	NA	NA	NA

B) Cassava

Data on estimated loss of cassava produce due to floods in the states visited during the survey is presented in Table 14.2. From the table it can be seen that severe damage was done to the crop commodity by the floods in all the states visited, as a result of loss of hundreds of thousands of hectares of the crop commodity. The highest value loss of the commodity was incurred in Rivers State where more than 70BN worth of cassava was lost to flood. This was followed by Ebonyi state with loss of more than 44BN. The lowest incurred loss of cassava among the states surveyed was in Adamawa, which was about 70MN.

Table 14.2: Loss of cultivated cassava to floods during 2018 wet season

S/N	State	Crop area affected (ha)	Estimated production lost (MT)*	Estimated production lost value (N)*
1	Adamawa	100	587	70,440,000
2	Bayelsa	42,150	134,295	16,511,572,591
3	Delta	9500	71,373.95	5,376,599,932
4	Ebonyi	62242	365,360.50	44,921,078,393
5	Jigawa	NA	NA	NA
6	Kebbi	5,667	26,122.6	3,819,908,190
7	Kogi	120,000	1142.11	140,422,905.2
8	Niger	5, 000	21,046.19	2,587,629,560
9	Rivers	100,000	573,689.8	70,535,155,754.

C) Maize

For maize crop, the cropped area destroyed and the estimated output values for the states visited during the survey are presented in Table 14.3. From the table, severe damage of maize fields was seen to be incurred in all the 9 states visited, resulting in loss of crop value ranging from hundreds of millions to even billons of Naira. The highest loss incurred was in Kebbi State where 90000ha of maize farms with estimated yield value of more than N35BN were submerged by the flood and completely wiped away. This was followed by Niger state with a paddy yield loss value of about 3BN. The lowest yield value loss of maize was about N4MN from Delta State.

Table 14.3: Loss of cultivated maize to floods during 2018 wet season

S/N	State	Crop area affected (ha)	Estimated yield lost (MT)*	Estimated yield lost value (N)*
1	Adamawa	5758	12,548.1	2,258,658,718.73
2	Bayalsa	NA	NA	NA
3	Delta	NA	NA	NA
4	Ebonyi	14004	28008	2,594,100,960
5	Jigawa	NA	NA	NA
6	Kebbi	7,000	14,393.22	2,590,779,431.34
7	Kogi	90,000	216,711.6	35,603,552,039.61
8	Niger	12, 000	31,448.98	2,912,804,527.41
9	Rivers	20.61	44.92	4,160,404.56

D) Sorghum

Flood damage data on sorghum during the survey is presented in Table 14. 4. From the table, it can be seen that most of the state could not provide data. This could be because at the time of the floods, sorghum fields were not ready for harvest and also, the crop has the capacity to resist flooding effect for some days. However, data from the states with available information showed that Kebbi State incurred the highest loss of sorghum due to flooding. This is as seen with the loss in value of the commodity in tune of more than 2BN. This was followed by Niger State with loss of more than 1BN. Adamawa State was the least hit with loss of the commodity to flood to a tune of 176MN.

Table 14.4: Loss of cultivated Sorghum to floods during 2018 wet season

S/N	State	Crop area affected (ha)	Estimated yield lost (MT)*			Estimated yield lost value (N)*
1	Adamawa	1132.5	1260.66			176,491,897.80
2	Bayalsa	NA	NA			NA
3	Delta	NA	NA			NA
4	Ebonyi	NA	NA			NA
5	Jigawa	NA	NA			NA
6	Kebbi	10,000	12258.45			2,819,444,233.57
7	Kogi	NA	NA			NA
8	Niger	7, 500	11157.59			1,133,722,789.74
9	Rivers	NA	NA			NA

E) Yam

Data on estimated loss of yam produce due to floods in the states visited during the survey is presented in Table 14.5. From the table it can be seen that severe damage was done to the crop commodity by the floods in all the states visited, as a result of loss of hundreds of thousands of hectares of the crop commodity. The highest value loss of the commodity was incurred in Kogi State where more than 250BN worth of cassava was lost to flood. This was followed by Rivers state with loss of more than 34BN. The lowest incurred loss of yam among the states surveyed was Delta, which was more than 1BN.

Table 14.5: Loss of cultivated yam to floods during 2018 wet season

S/N	State	Crop area affected (ha)	Estimated production lost (MT)*	Estimated production lost value (N)*
1	Adamawa	NA	NA	NA
2	Bayalsa	20,230	82,528.45	28,102,587,745.14
3	Delta	486	3828.17	1,303,567,519.11
4	Ebonyi	2490	29880	10,174,737,600
5	Jigawa	NA	NA	NA
6	Kebbi	NA	NA	NA
7	Kogi	100,000	734,662.11	250,167,140,197.23
8	Niger	5, 000	66309.42	22,579,685,254.71
9	Rivers	40,000	100,978.40	34,385,165,710.18

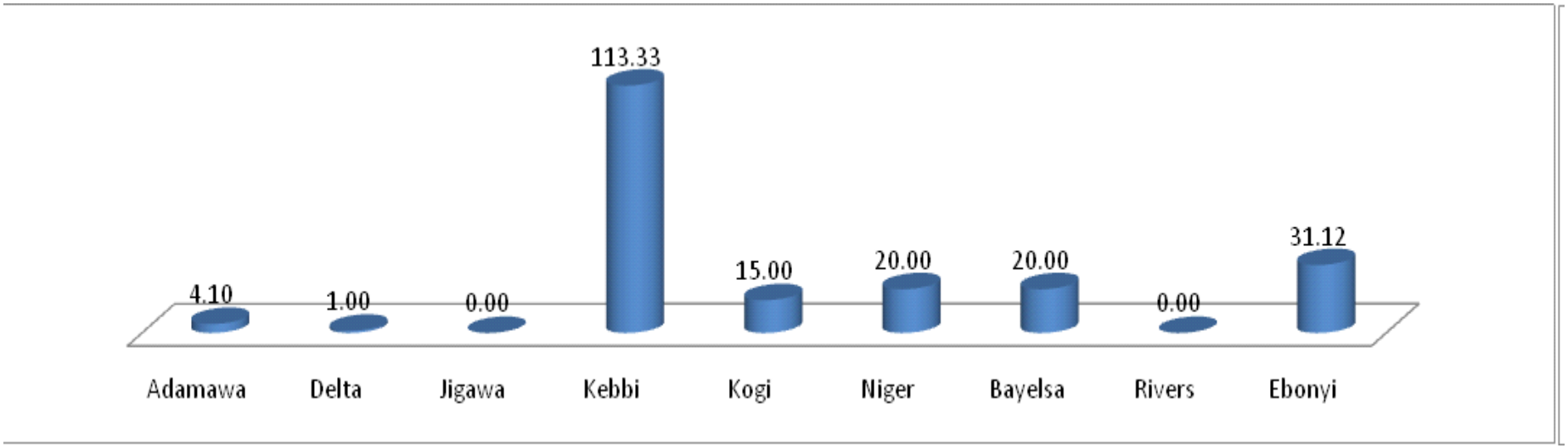


Figure 14.2a: Rice Affected Area ('000Ha)

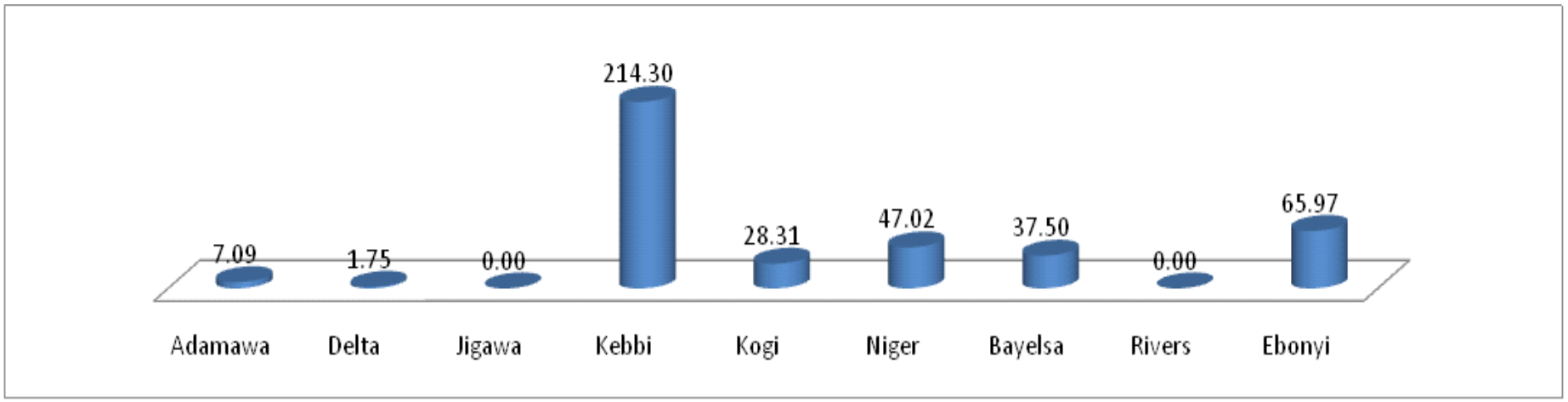


Figure 14.2bRice Output loss ('000MT)

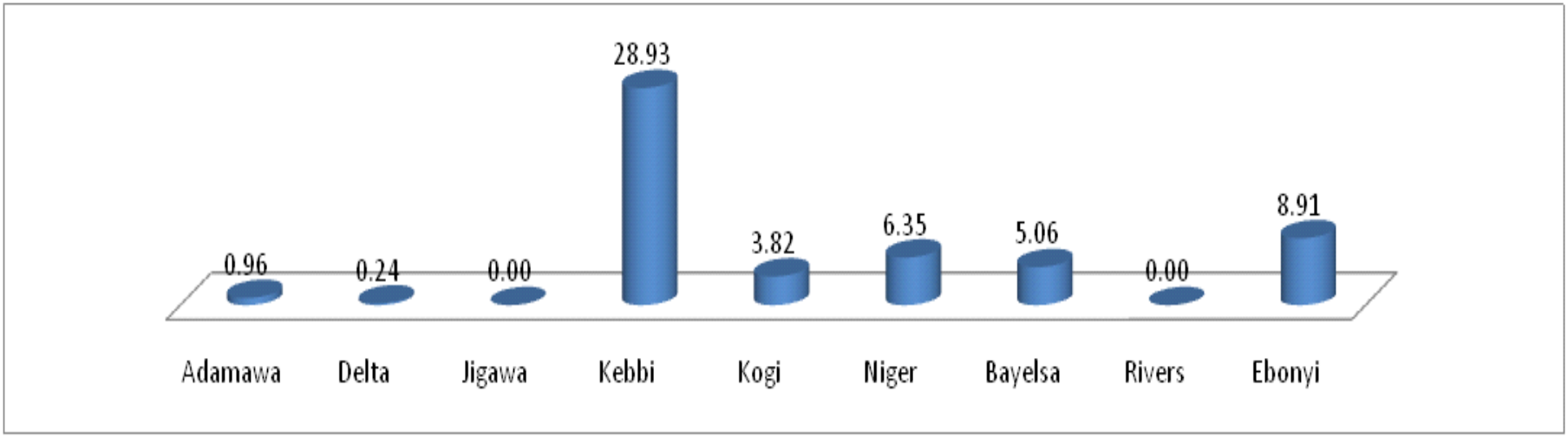


Figure 14.2c:Rice Production loss (billion N)

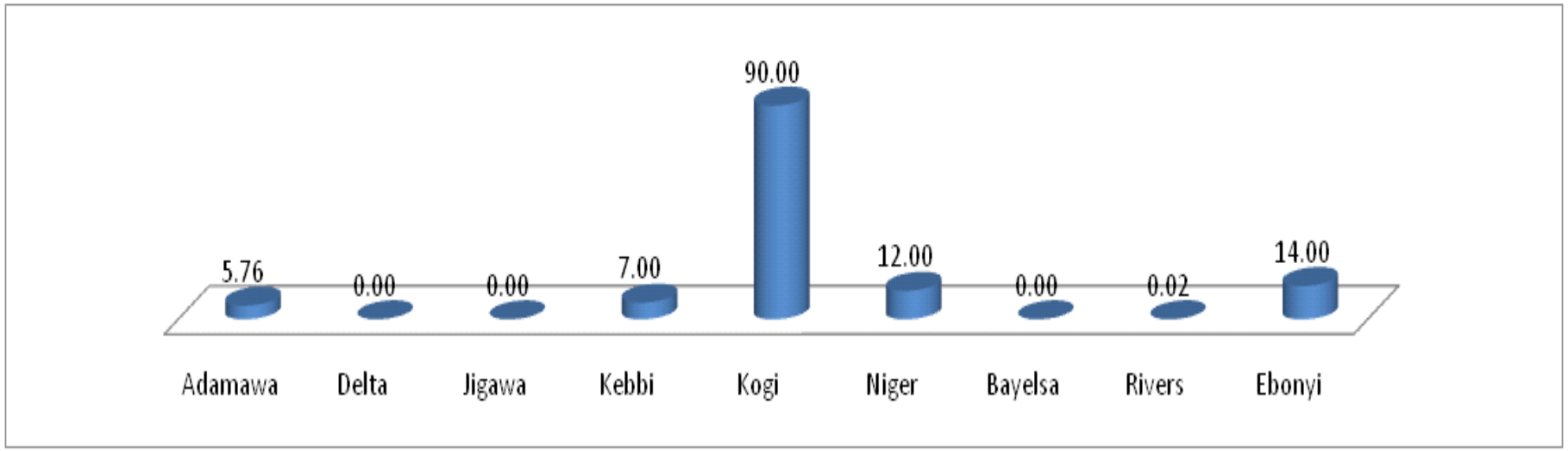


Figure 14.3a:Maize Affected Area ('000Ha)

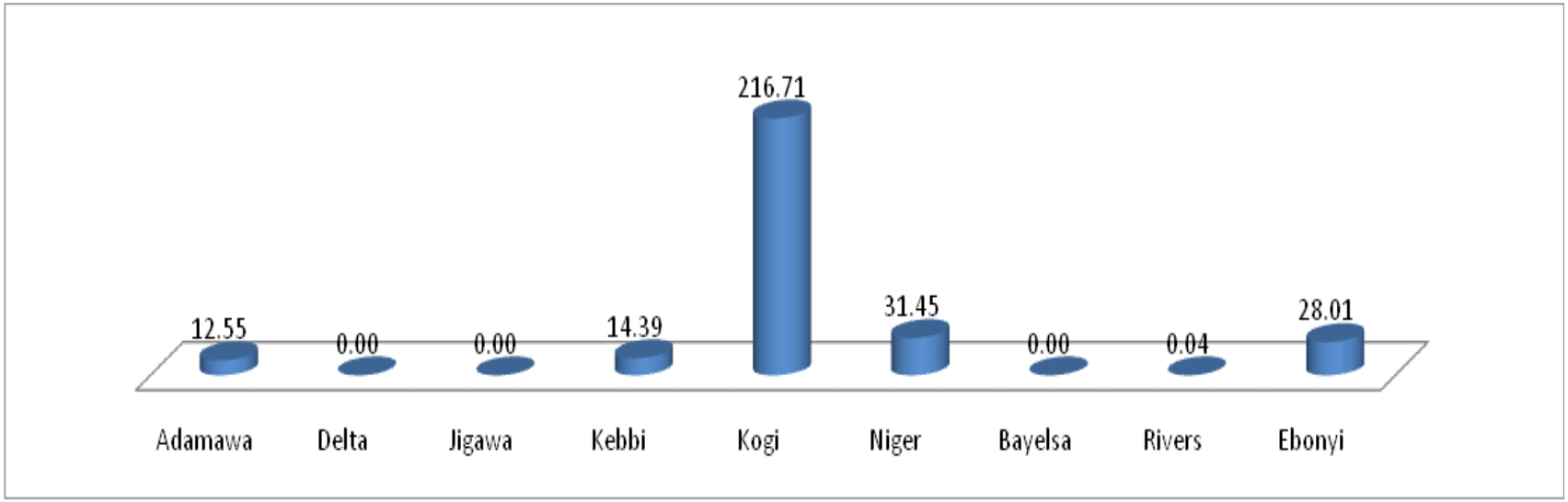


Figure 14.3b:Maize Output loss ('000MT)

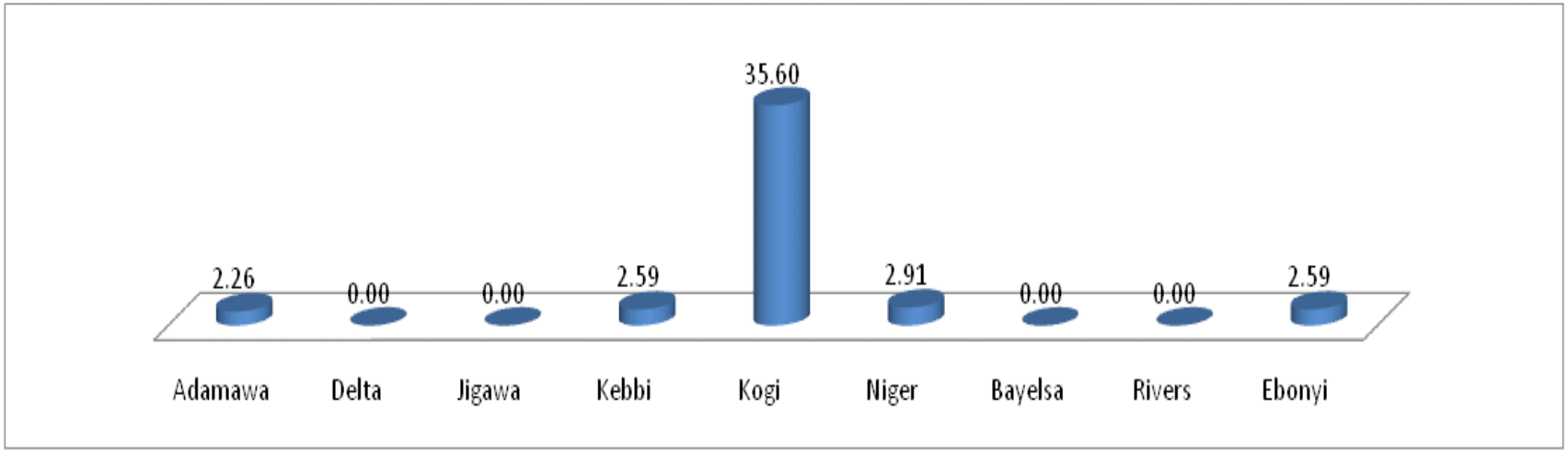


Figure 14.3c:Maize Production loss (billion N)

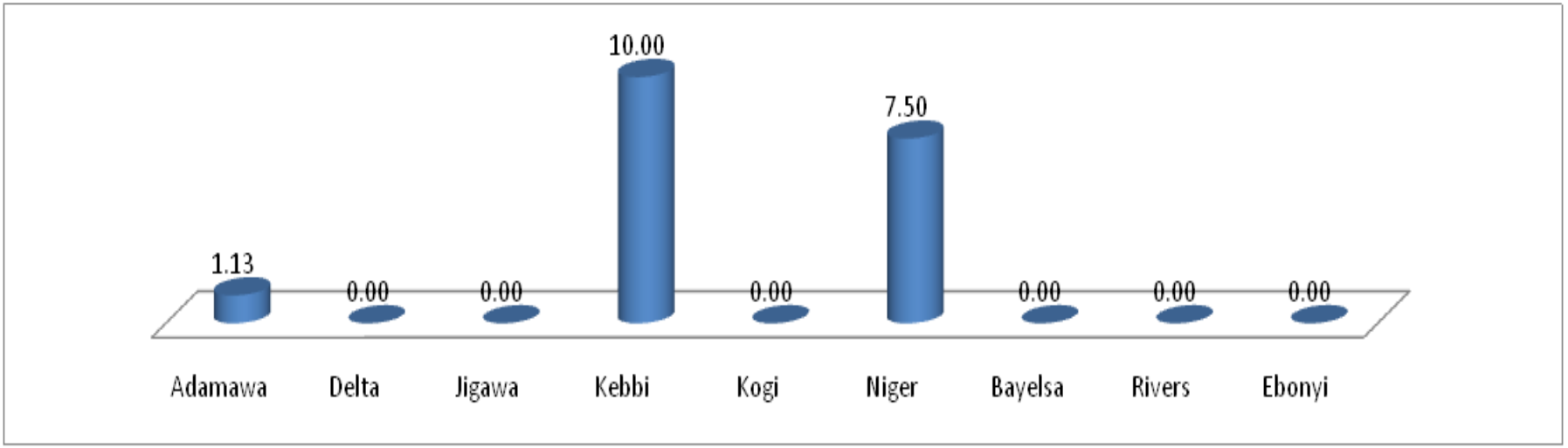


Figure 14.4a:Sorghum Affected Area ('000Ha)

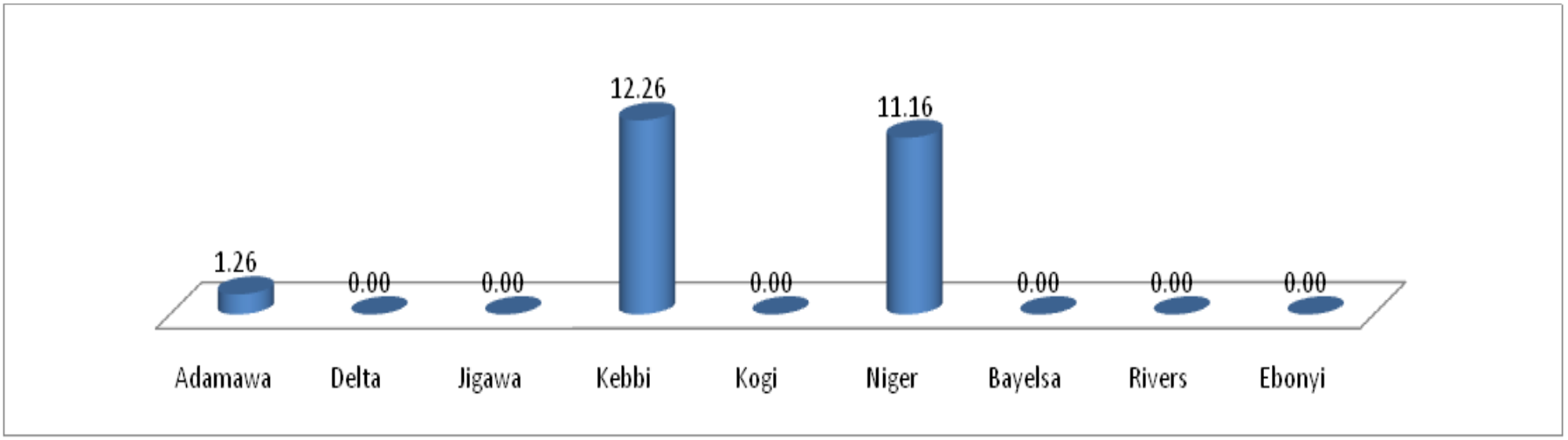


Figure 14.4b: Sorghum Output loss ('000MT)

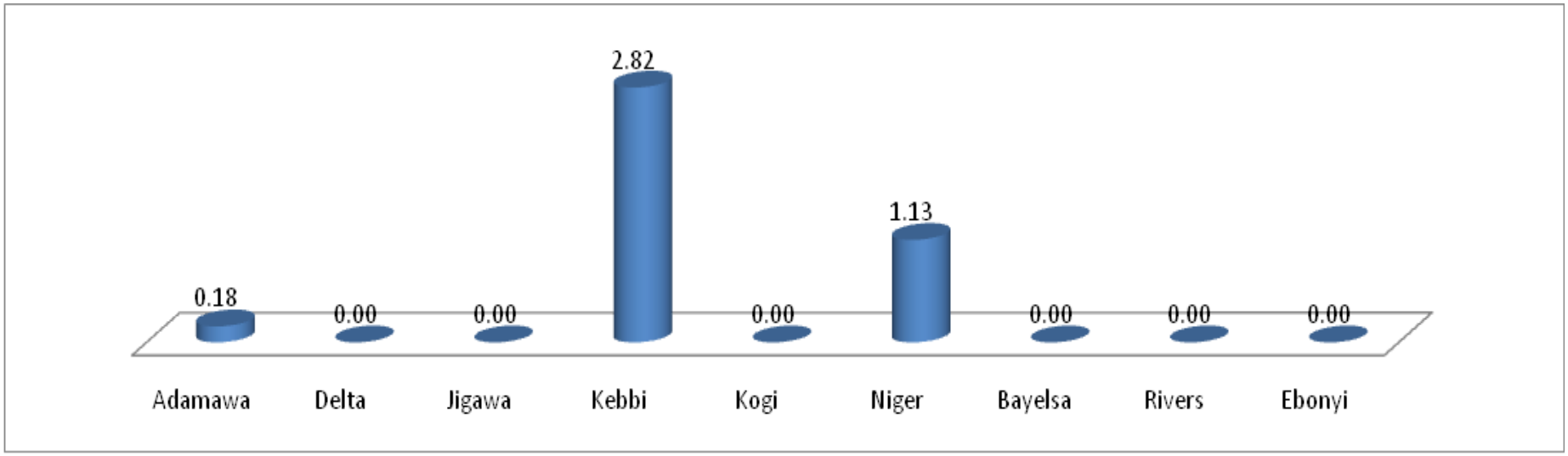


Figure 14.4c: Sorghum Production loss (billion N)

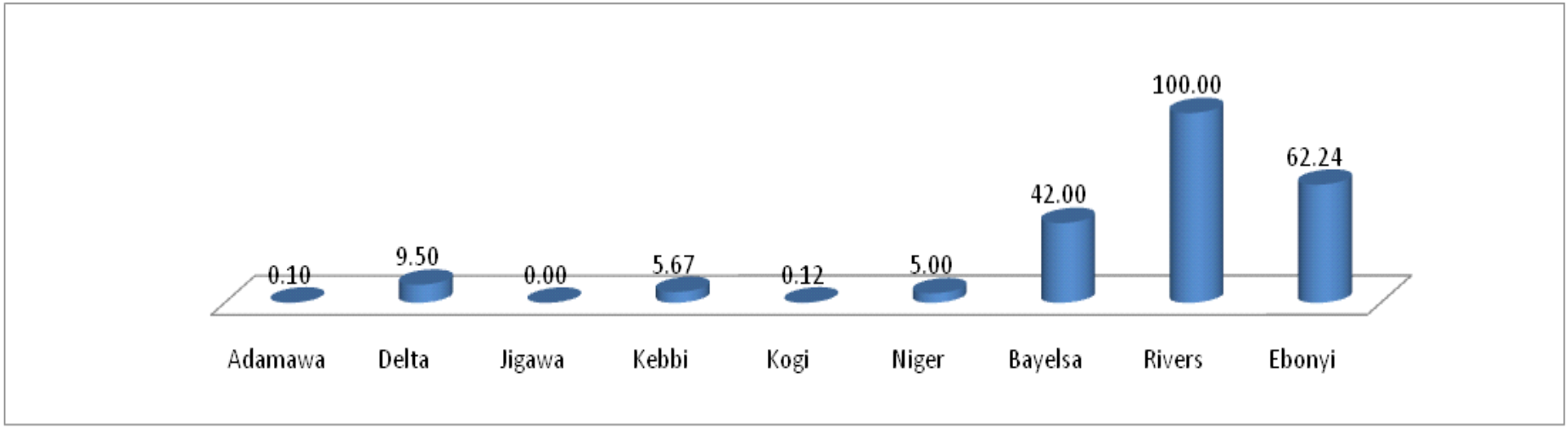


Figure 14.5a: Cassava Affected Area ('000Ha)

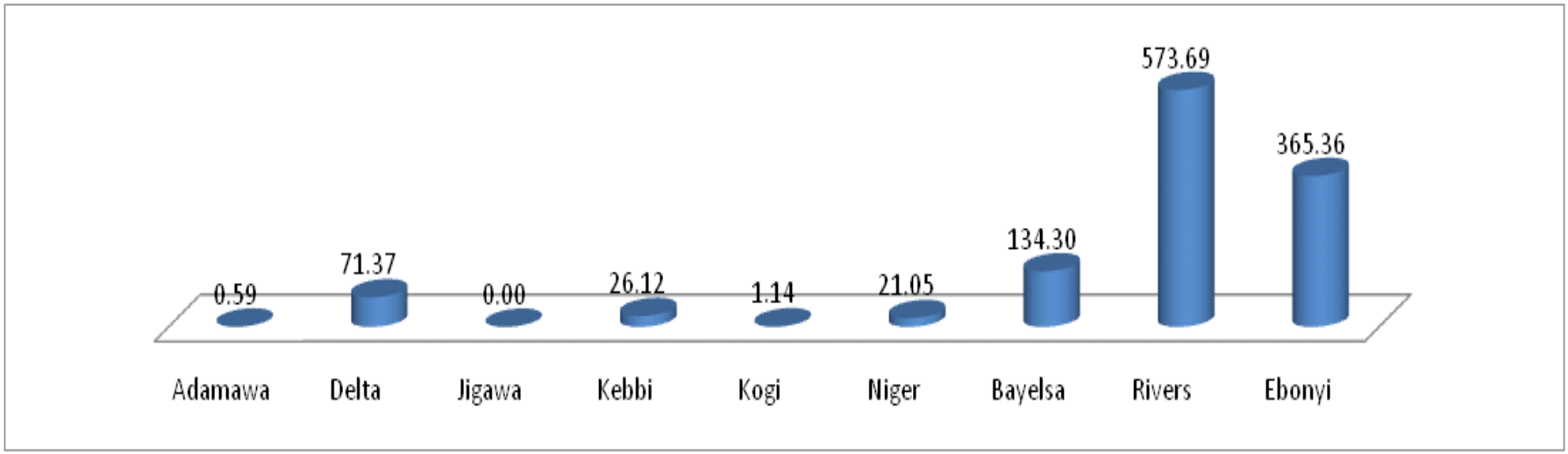


Figure 14.5b:Cassava Output loss ('000MT)

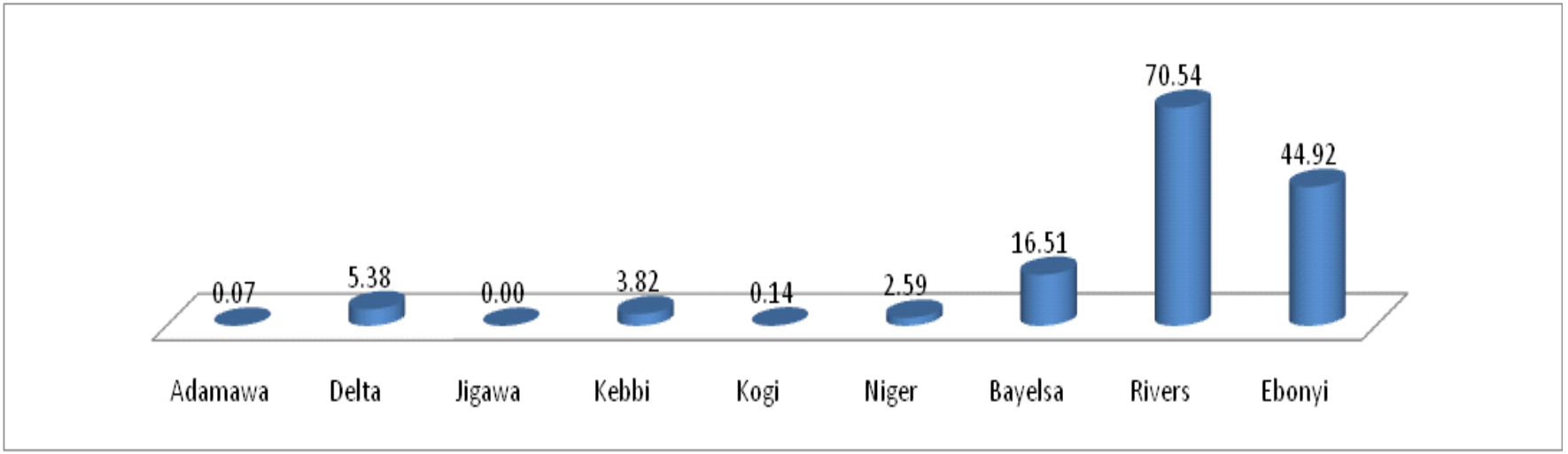


Figure 14.5c: Cassava Production loss (billion N)

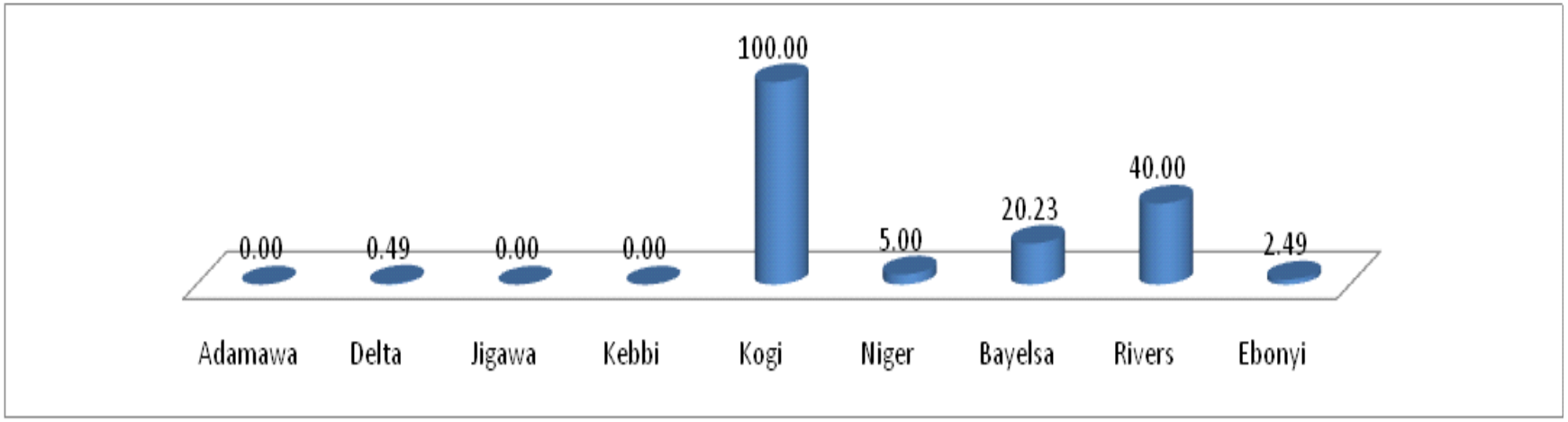


Figure 14.6a: Yam Affected Area ('000Ha)

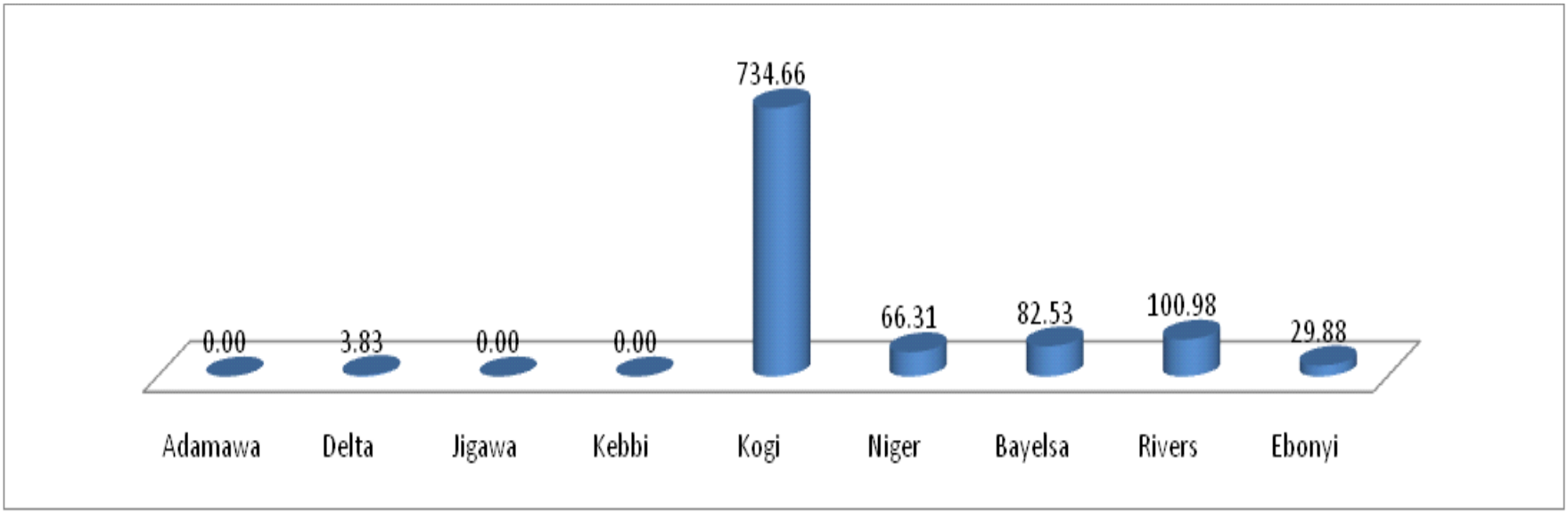


Figure 14.6b:Yam Output loss ('000MT)

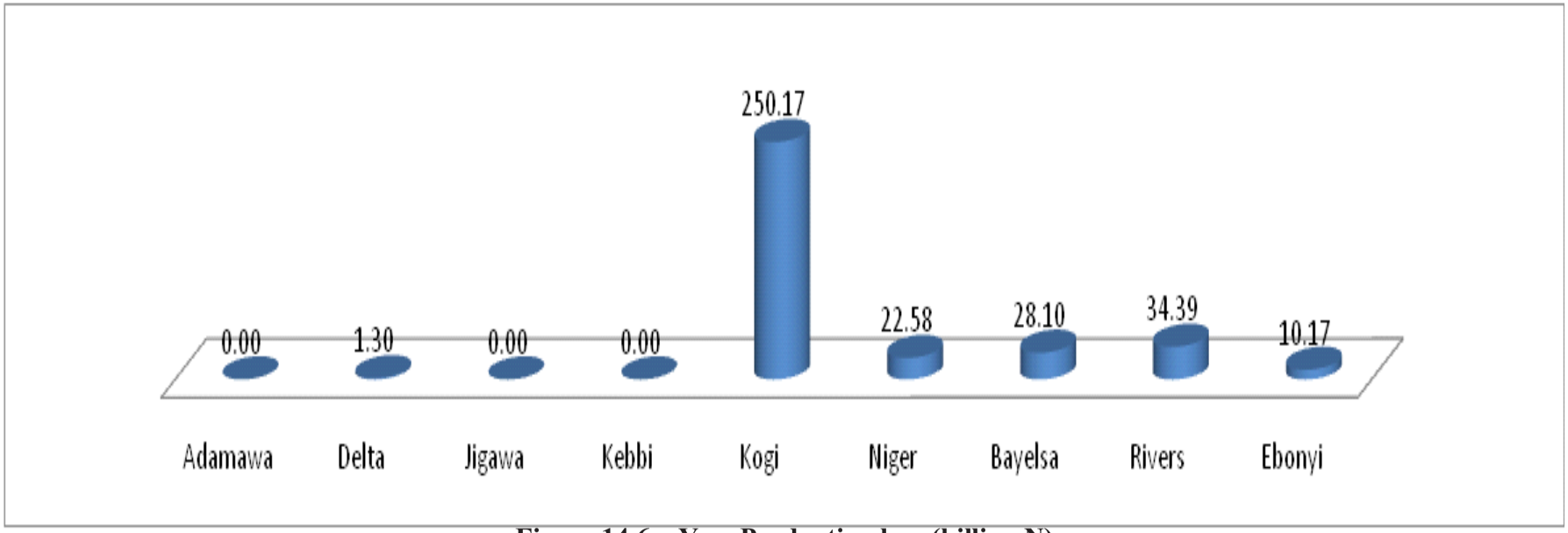


Figure 14.6c: Yam Production loss (billion N)

F) Estimated Financial Impact of Flood on Crop Production

The table below shows the estimated production losses in naira for some major crops as affected by flood in some states of the federation. Yam has the highest amount lost to flooding with about 346.712 billion naira followed by cassava (N143.962b).

Table 14.6: Estimated Production Losses of Crops in million Naira

State	Rice Production Losses(Naira)	Cassava Production Losses (Naira)	Maize Production Losses (Naira)	Sorghum Production Losses(Naira)	Yam Production Losses(Naira)
Adamawa	956,505,304	70,440,000	2,258,658,718.73	176,491,897.80	NA
Bayelsa	5,062,214,492	16,511,572,591	NA	NA	28102587745.14
Delta	236,078,743	5,376,599,932	NA	NA	1303567519.11
Ebonyi	8,906,544,000	44,921,078,393	2,594,100,960	NA	10,174,737,600
Jigawa	NA	NA	NA	NA	NA
Kebbi	28,931,134,264	3,819,908,190	2,590,779,431.34	2,819,444,233.57	NA
Kogi	3,822,431,426	140,422,905.2	35,603,552,039.61	NA	250167140197.23
Niger	6,347,511,558	2,587,629,560	2,912,804,527.41	1,133,722,789.74	22579685254.71
Rivers	NA	70,535,155,754.	4,160,404.56	NA	34385165710.18
Sub-Total	54,262,419,787	143,962,807,325	45,964,056,082	4,129,658,921	346,712,884,026
Total	**595,031,826,141**				

The estimated loss for the mentioned crops alone as shown in the pie chart below stands at 595.032 billion naira with yam having the largest share of loss (58 %) followed by cassava with 24 percent and sorghum having the least percentage (1%) of the total value of crops affected by floods (Figure 14.7). This by implication indicates a serious challenge on the socio-economics of the populace.

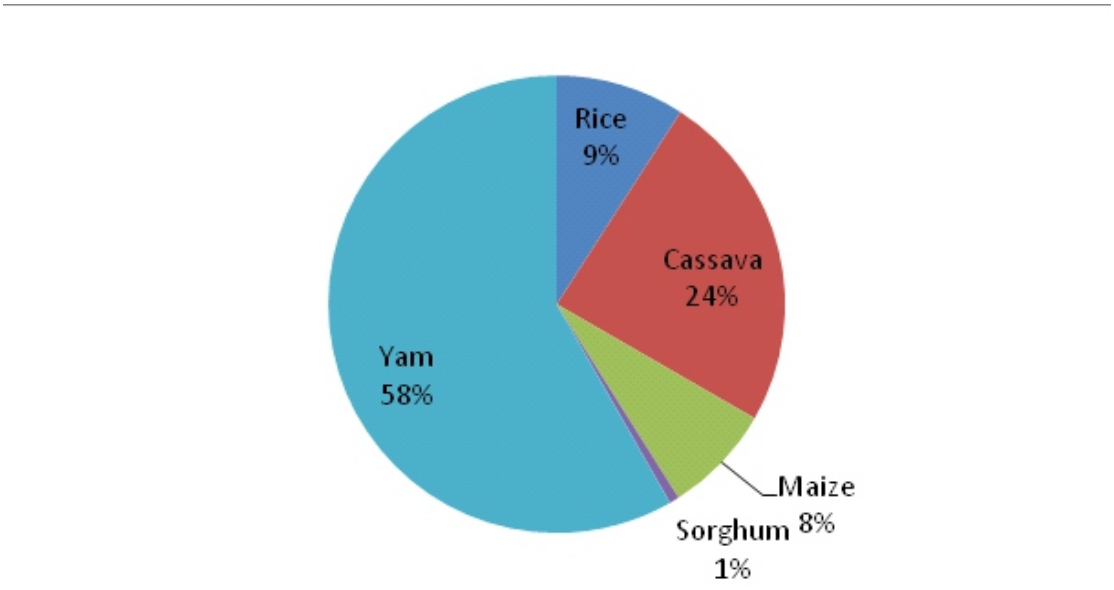


Figure 14.7: Production losses as % of total value lost (N)

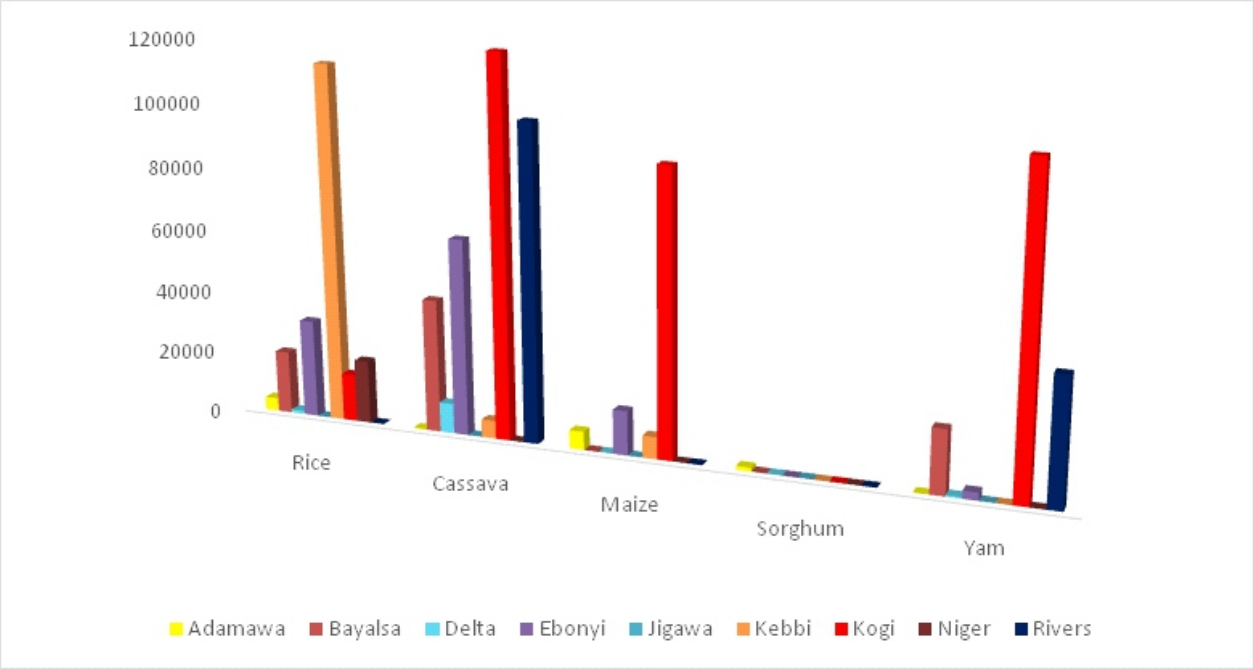


Figure 14.8: Estimated Land Area Affected For Different Crop (Ha)

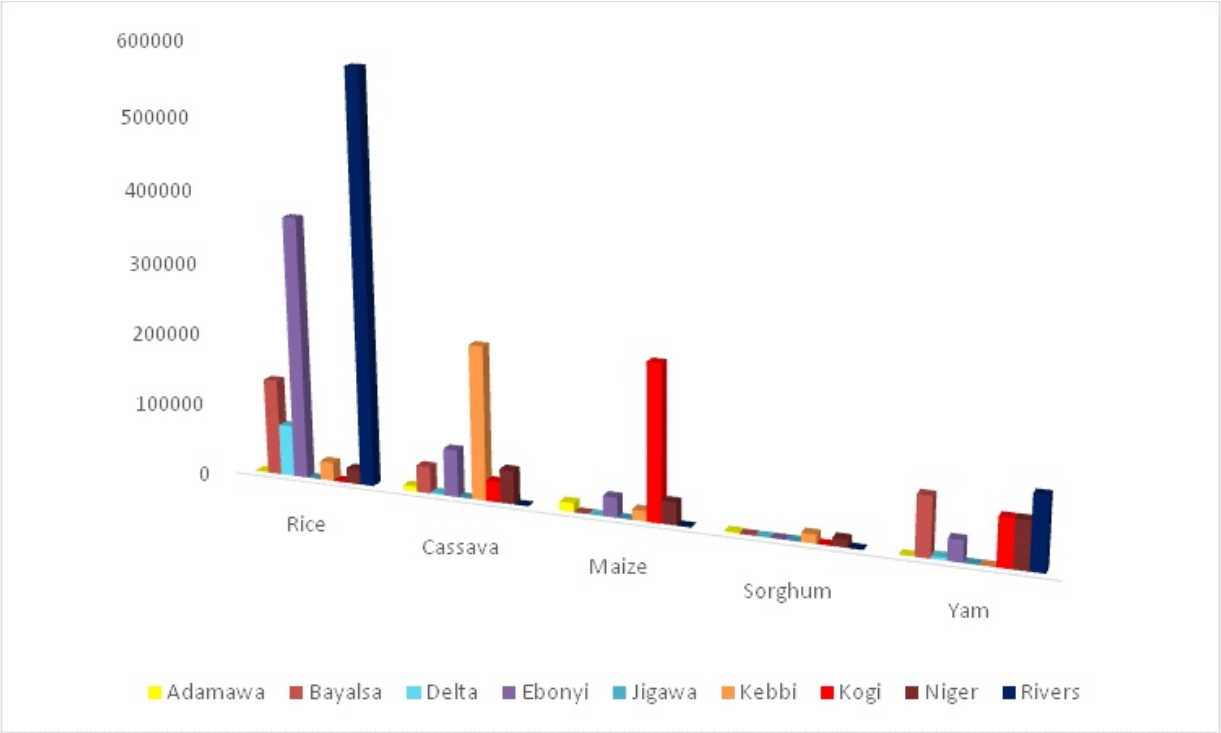


Figure 14.9: Estimated Production Lost (MT)

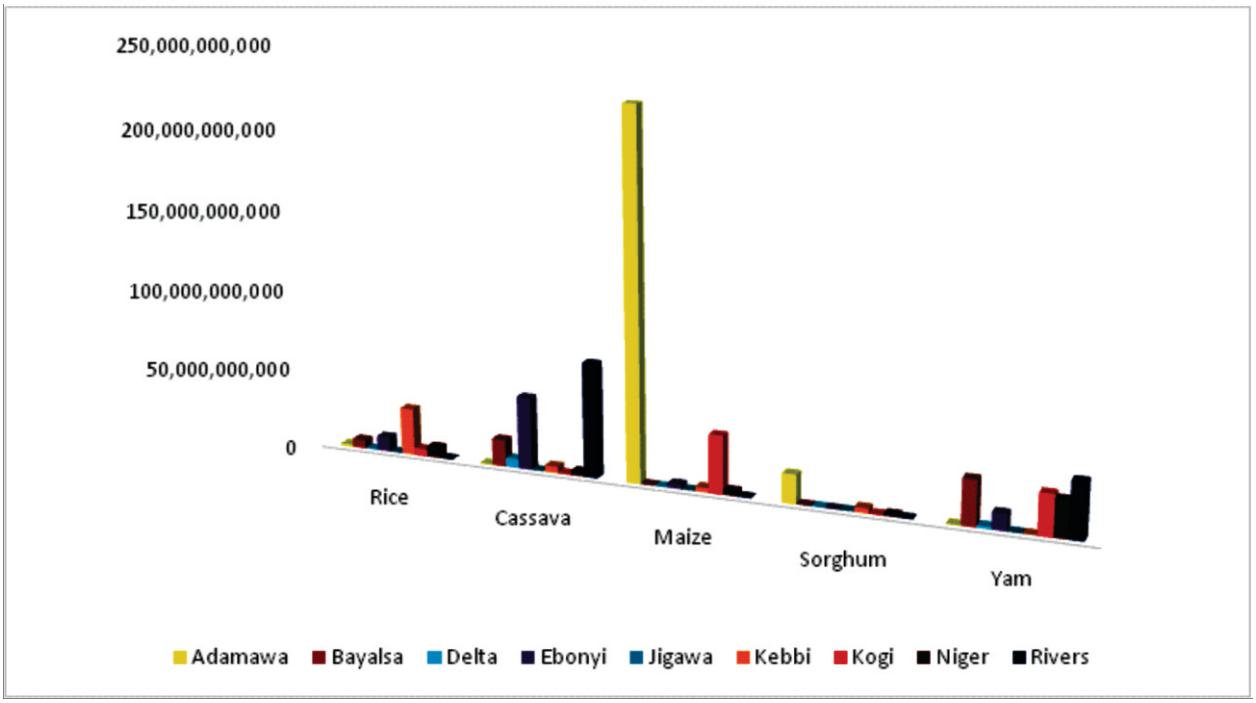


Figure 14.10: Estimated Production Lost Value (Naira)

Plate 4.1: A village destroyed by flood in Kebbi State

Plate 14.2: Rice field destroyed by floodand replaced by floating grass

Plate14.3: A village flooded in Kebbi state

14.2.2 Livestock

Table 14.7 shows the estimated losses in cattle for states affected by the flood. Kebbi State lost 1,000 cattle, Niger state lost 856, Adamawa 126, while Kogi lost 90. The estimated monetary value of cattle lost was highest in Kebbi state (N100,000,000), followed by Kogi (N19,000,0000) while in Niger state, N102, 720 was lost.

Table 14.7: Estimated Livestock Losses- Cattle (Naira)

	State	Estimated number lost	Estimated value lost (N)*
1	Adamawa	126	9,450,000
2	Bayelsa	NA	NA
3	Delta	NA	NA
4	Ebonyi	NA	NA
5	Jigawa	NA	NA
6	Kebbi	1,000	100,000,000
7	Kogi	90	19,000,000
8	Niger	856	102,720
9	Rivers	NA	NA

The estimated losses in donkey and camel is revealed in Table 14.8, Kebbi state lost 52 camels which is equivalent to 4,600,000 naira. Other states had no such records for donkey and camel.

Table 14.8: Estimated Livestock Losses- Donkey/Camel (Naira)

	State	Estimated number lost	Estimated value lost (N)*
1	Adamawa	NA	NA
2	Bayelsa	NA	NA
3	Delta	NA	NA
4	Ebonyi	NA	NA
5	Jigawa	NA	NA
6	Kebbi	52	4,600,000
7	Kogi	NA	NA
8	Niger	NA	NA
9	Rivers	NA	NA

Table 14.9 shows the number of sheep and goat lost in the states visited. Rivers state lost the highest number of sheep and goat (63,000), followed by Kebbi (4,300), Kogi (3,800), Adamawa (2,171), Delta (2,000), and lastly Niger state (1,070). Similarly, Rivers state had the greatest economic loss (603,000,000), followed by Kogi state (N47,000,000), Kebbi (N44,000,000), then Adamawa (N32,565,000) and lastly Delta state (20,500,00). Data from the other states were not available.

Table 14.9: Estimated Livestock Losses - Sheep/Goat (Naira)

	State	Estimated number lost	Estimated value lost (N)*
1	Adamawa	2,171	32,565,000
2	Bayelsa	NA	NA
3	Delta	2000	20,500,000
4	Ebonyi	NA	NA
5	Jigawa	NA	NA
6	Kebbi	4300	44,000,000
7	Kogi	3800	47,000,000
8	Niger	1070	11,070,000
9	Rivers	63,000	603,000,000

The estimated losses in poultry is revealed in Table 14.10. Bayelsa had the greatest loss (8,000,000), then Rivers (100,000), Delta State (30,000), Kebbi was next (6,500), followed by Adamawa (4,405) and Niger (3,462) lastly, Kogi (50). The estimated economic losses in poultry was highest in Bayelsa (N2,4000.000,000), followed by Rivers (N103,000,000), Delta (N40,500,000), Kogi (N20,000,000), Niger (N5,139,000), Adamawa (N4,666,500), however, Kebbi had the least (N3,550,000).

Table 14.10: Estimated Livestock Losses-Poultry (Naira)

	State	Estimated number lost	Estimated value lost (N)*
1	Adamawa	4,405	4,666,500
2	Bayelsa	8,000,000	240000,000
3	Delta	30,000	40,500,000
4	Ebonyi	NA	NA
5	Jigawa	NA	NA
6	Kebbi	6,500	3,550,000
7	Kogi	50	20,000,000
8	Niger	3,462	5,139,000
9	Rivers	100,000	103,000000

Table 14.11 shows the losses in swine production in the states visited. Bayelsa state lost the highest number (37,000), followed by Rivers (20,000), Delta (4,000), then Adamawa (1,281). The equivalent economic losses in the four states was N2,400,000,000, N200,000,000, N30,100,000 and N23,058,000, respectively.

Table 14.11: Estimated Livestock Losses in Swine (Naira)

	State	Estimated number lost	Estimated value lost (N)*
1	Adamawa	1,281	23,058,000
2	Bayelsa	37,0000	2,400,000,000
3	Delta	4,000	30,100,000
4	Ebonyi	NA	NA
5	Jigawa	NA	NA
6	Kebbi	NA	NA
7	Kogi	NA	NA
8	Niger	NA	NA
9	Rivers	20,000	200,000,000

The estimated losses in the three major (3) Livestock species in million naira are revealed in Table 14.12. Kebbi had the highest economic loss (N100,000,000) in cattle, while Rivers state had the highest economic loss in sheep and goat (N603,000,000) while Bayelsa state had highest economic loss in poultry (N19,000,000,000).

Table 14.12: Estimated Livestock Production Losses (Naira)

		State	Cattle	Sheep/Goat	Poultry
1		Adamawa	9,450,000	32,565,0000	4,666,500
2		Bayelsa	NA	NA	19,000,000,000
3		Delta	NA	20,5000,000	40,500,000
4		Ebonyi	NA	NA	NA
5		Jigawa	NA	NA	NA
6		Kebbi	100,000,000	44,000,000	3,550,000
7		Kogi	19,000,000	47,000,000	20,000,000
8		Niger	102,720	11,070,000	5,139,000
9		Rivers	NA	603,000,000	103,000,000

The implication of these results is that there may be a shortage in animal protein in the year 2018. Therefore, it is recommended that all levels of government (federal, state and local) should massively invest in livestock production that have short generation interval and rapid return upon investment such as poultry and rabbit. Also, the Federal, State and Local government should engage in crop production which will supply alternative sources of protein such as quality protein maize (QPM) and soybean fortified with lysine.

Plate 14.4: Sorghum submerged by flood

Plate 14.5: A flooded Sorghum Farm

Plate 14.6: A Rice field affected by the Flood

Plate 14.7: A flooded rseidential at Jahun LGA

14.1.2 Fisheries

Table 14.13: Estimation of Fisheries Production Losses Due to the 2018 Flood

State	Production loss, tons	Value of production loss, million Naira
Adamawa	NA	NA
Bayelsa	Earthen/Concrete Ponds (192,730)	3,900
Delta	Concrete (3333)	1.5
Ebonyi	Concrerte/Earthen Ponds(70,000)	50.5
Jigawa	NA	NA
Kebbi	Earthen/ Concrete ponds	250
Kogi	Earthen/Concrete ponds (195,000)	350
Niger	NA	NA
Rivers	Earthen Pond (10750)	720

Table 14: Estimation of Earthen Fish Ponds Damages Due to the 2018 Floods

S/No	State	Estimated number lost	Estimated value lost (N)*
1	Adamawa	NA	NA
2	Bayelsa	105,230,000	2.1B
3	Delta	3333	1.5
4	Ebonyi	50,000	50,000,000
5	Jigawa	NA	NA
6	Kebbi	Earthen pond	150,000,000
7	Kogi	Earthen Ponds (150,000)	250,000,000
8	Niger	NA	NA
9	Rivers	10750	720

Table 14.15: Estimation of Concrete Fish Ponds Damages Due to the 2018 Floods

S/No	State	Estimated number lost	Estimated value lost (N)*
1	Adamawa	NA	NA
2	Bayelsa	77,500,000	1.8B
3	Delta	NA	NA
4	Ebonyi	Concrete 20,000	500,000
5	Jigawa	NA	NA
6	Kebbi	Concrete pond	100,000,000
7	Kogi	Concrete ponds (45,000)	N100,000,000
8	Niger	NA	NA
9	Rivers	NA	NA

Plate 14.9: Small size fish catches overr flooded river at Miga LGA

Generally, fisheries sector in selected states suffered serious devastation as most fisheries activities take place around riverine areas. The 2018 flooding effect in many states indicated high losses e.g. in Bayelsa state the lost incurred on earthen ponds is 105 tones valued at about 2.1 Billion Naira, while the concrete ponds loss was 77.5 tones with the estimated value of 1.8 Billion Naira. In Kebbi state generally, the losses incurred in the sector covering both earthen and concrete ponds were estimated to cause about one hundred and fifty million Naira (N150,000,000), this includes loses incurred in both artisanal and culture fish productions. Reasons for the losses was that most people in aquaculture and fisheries business are settled along riverine area. Similarly, flood effect this year had an impact on fisheries activities of fish farmers at Ebonyi state. A loss of 50 tones and 20 tonnage valued at N50,000,000 and N500,000 on concrete and earthen ponds were recorded across the state respectively. Incidentally, in Kogi state, the losses incurred were valued to reach about two hundred and fifty million naira (250,000,000) in all the two major sectors. In Rivers state, flooding effect on fisheries and aquaculture indicated that loses were incurred mostly in the earthen pond facility. An estimated loss of 1.7 tones was incurred estimated to cost N720 million. Many states were not reported because the records as at the time of this survey were not available.

Plate 14.10: Flooded Houses in Kogi state

Plate 14.11: Flooded Farmlands in Kogi state

Plate 14.12: IDPs Camp in Baka, Lapai LGA

Plate 14.13: Flooded Rice Farm and Access Road in Koso Village, Lavun LGA

14.3 Effects on Income

Table 14.16 shows information on number of day lost and the value of losing these days in various states visited. Information on number days lost by farmers due to flood was obtained from three out of the six states visited. The highest number of days lost was reported by Niger state (70 days) followed by Kebbi (65 days). This was attributed to the vast rice fields affected in these states that made farmers to be at home for longer period of time up to the time of this survey. Adamawa and Delta states farmers lost 30 and 26 days respectively due to flood in their states. Lower days lost in Adamawa and Delta was due to the fact that most of their farm works were done before the flood in the states. The recommendation to compensate these lost days and income by farmers is to support them to be engaged in dry season farming.

Table 14.16: Impact of the Flood Disas ter on Employment and Income in the Agricultural Sector (Estimate)

State	Working days lost in crop productio n	Income loss by workers in crop production (million naira)	Working days lost in Livestoc k and fisheries	Income loss of workers in Livestock and fisheries (million naira	Total working days lost in agricultur e	Total income loss of workers in agriculture	Number of Drowned Animals Due to the 2018 Floods- cattle, goat/ sheep, pigs, poultry
Adamawa	30	8,334,275,000	NA	NA	NA	NA	NA
Bayelsa	NA	NA	NA	NA	NA	NA	NA
Delta	26	NA	33	NA	29	600,000	NA
Ebonyi	30	7,500,000,000	30	30,000,000	60	7,350,000,000	NA
Jigawa	NA	NA	NA	NA	NA	NA	NA
Kebbi	65	N2,821,000,000	65	N32,000,000	65	N1,295,050,000,000	11,852
Kogi	NA	NA	NA	NA	NA	NA	
Niger	70	NA	NA	NA	70	NA	NA
Rivers	79	576,962,000	79	1,185,000	158	578,147,000	183

14.4 Preventive and Mitigating Measures

Coping strategies utilized across the nation- relief Materials Supplied

Table 14.17: Food Items

S/N	State	Type	Quantity	Source	Adequacy
1	Adamawa	NA	NA	NA	NA
2	Bayelsa	NA	NA	NA	NA
3	Delta	Rice	92 bags	NEMA	Inadequate
		Tomatoes	144 cartons	NEMA	Inadequate
		Rice	300 bag	NGO	Inadequate
		Beans	350 kg	NGO	Inadequate
		Garri	1000 kg	NGO	Inadequate
		Red oil	220 lts	NGO	Inadequate
		Ground nut oil	720 lits	NGO	Inadequate
		Indomine	600 cartons	NGO	Inadequate
		Salt	100 bags	NGO	Inadequate
4	Ebonyi	NA	NA	NA	NA
5	Jigawa	Rice	NA	NA	NA
		Millet	NA	NA	NA
		Guinea Corn	NA	NA	NA
		Groundnut	NA	NA	NA
		Garri	NA	NA	NA
		Kuli-Kuli	NA	NA	NA
		Sugar	NA	NA	NA
6	Kebbi	Millet	1,610 bags	SEMA	Inadequate
		Guinea Corn	1,298 bags	SEMA	Inadequate
		Maize	2,100 bags	SEMA	Inadequate
		Rice	1,000 bags	SEMA	Inadequate
7	Kogi	Cassava	20 bags	NEMA	Inadequate
		Yam	40 bags	NEMA	Inadequate
		Rice	50 bags	NEMA	Inadequate
8	Niger	Rice	1000	SEMA	Inadequate
		Maize	1000	SEMA	Inadequate
		Garri	1000	SEMA	Inadequate
		Millet	1000	SEMA	Inadequate
		Groundnut Oil	100 (25ltr)	SEMA	Inadequate
		Palm Oil	400 (25ltr)	SEMA	Inadequate
9	Rivers	NA	NA	NA	NA

Table 14.18: Other Materials

S/N	State	Type	Quantity	Source	Adequacy
1	Adamawa	NA	NA	NA	NA
2	Bayelsa	NA	NA	NA	NA
3	Delta	NA	NA	NA	NA
4	Ebonyi	NA	NA	NA	NA
5	Jigawa	Canoes	20	SEMA	
		Cholera drugs			
		Anti-malaria drugs			
		Cough Cyrups			
6	Kebbi	Cement	2,900 bags	SEMA	Not Adequate
		Roofing Sheet	1,000 bundles	SEMA	Not Adequate
		Nails	1,000 bunches	SEMA	Not Adequate
7	Kogi	Assorted Drugs	50 Cartons	NEMA	Inadequate
		Canoe	10	NEMA	Inadequate
8	Niger	NA	NA	NA	NA
9	Rivers	NA	NA	NA	NA

Table 14.19: Households

S/N	State	Type	Quantity	Source	Adequacy
1	Adamawa	NA	NA	NA	NA
2	Bayelsa	NA	NA	NA	NA
3	Delta	Mattresses	959	NEMA	Inadequate
		Blanket	2339	NEMA	Inadequate
		Lux soap	289 cartons	NEMA	Inadequate
		Buckets plastic	1300	NEMA	Inadequate
		Mats	1750	NEMA	Inadequate
		Mattresses	680	NGO	Inadequate
4	Ebonyi	NA	NA	NA	NA
5	Jigawa	Mats (rubber)	NA	NA	NA
		Blankets	NA	NA	NA
		Mosquito nets	NA	NA	NA
		Cutleries	NA	NA	NA
		cups	NA	NA	NA
		spoons	NA	NA	NA
		plates	NA	NA	NA
		Buckets	NA	NA	NA
		Detergents	NA	NA	NA
		Empty bags	NA	NA	NA
6	Kebbi	Shadda	1,050 pieces	SEMA	Inadequate
		Atampa	1,050 pieces	SEMA	Inadequate
		Buckets	1,050 pieces	SEMA	Inadequate
		Blankets	2,940 pieces	SEMA	Inadequate
		Mats	1,050 pieces	SEMA	Inadequate
		Towels	630 pieces	SEMA	Inadequate
		Children wears	630 pieces	SEMA	Inadequate
7	Kogi	Blankets	1000	NEMA	Inadequate
		Mosquito Net	1500	NEMA	Inadequate
		Soap/Detergent	50 cartons	NEMA	Inadequate
8	Niger	NA	NA	NA	NA
9	NA	NA	NA	NA	NA

The impact of flood on farmers nationwide cannot be over emphasized. Most of the states supplied relief materials to victims in various ways. Some of the materials supplied include food items, building materials, agricultural inputs, medication, transportation and households. Tables 14.14 to14.16 indicate the types, quantity, source and adequacy of the relief materials supplied by the states. Most of the relief materials were supplied by state government through state emergency management agency (SEMA). Other sources of supply were National Emergency Management Agency (NEMA) and Non-Governmental Organizations (NGOs). Almost all the states reported that the relief materials were not adequate but still more were expected to be given which reduces the hardship flood victims were facing.

14.5 Summary on Flood Occurrences and Effects

All the communities visited are lacking emergency preparedness, adequate health services, poor access roads and hygiene. Most pronounce are lack health facilities, poor drainages and awareness on preventive measures.

Flood affects almost all the states of the federation but the impact differ from one state to another. The damages caused by flood is more in the states that are along the plane of river Niger and the most affected crop compared to other crops was rice for which large area of land was destroyed. This survey also discovered that a part from planted rice fields, nursery beds in preparation for dry season farming with plenty of rice seedlings were destroyed by the flood. The survey teams were informed that the cause of the flood in most states was due to rainfall intensity experience in 2018, because there was no report of releasing water from Dam except in Adamawa where it was reported that water was released from a Dam in Cameroun. Rainfall experienced this year has made crops to grow better than last year but the yield increase due to better rainfall cannot compensate the loss due to flood damage. Concrete measures need to be taken by government to avoid food scarcity that might be caused by the lost due to flood. Flooding this year consumed a vast agricultural land destroying about 35% of agricultural land in most of the states affected. Majority of the affected areas have not been given any assistance.

It was reported that victims of the flood are getting over the situation gradually, some are returning to their farm lands to take advantage of residual moisture, while the fishermen are returning to their fishing activities as expected when the flood recedes. However, victims whose houses were completely destroyed have to remain the IDP camps for a while, while they seek the assistance of the state Government to help them return to their normal activities. In conclusion, governments at all levels should take a drastic measure to prevent occurrence of flood, assist the victims and also purchase surplus grains produced from non-flooded areas and keep in their grain reserves in order to avoid food scarcity in the country as food security measure.

Fishermen and women suffered loses which could draw their activities back if not assisted. It is recommended that assistance such as fishing gears, canoes, cages, fish feed, fingerlings, fish smoking kiln and packaging materials be given to the fishers. Government needs to enforce legislation to safeguard lives of fishers by resettling them further away from the flood plains. Fish culture facilities such as collapsible tanks, feed and fingerlings be provided immediately as relief materials to reduce the pains of the devastation and make up for the food gaps flood might have created.

14.6 Specific Recommendations for reducing the Impacts of Floods on Farmlands

1. State governments should provide early maturing and drought tolerant seeds to farmers, so as to take advantage of the residual moisture after flooding.

2. Federal government should massively invest in dry season irrigation farming to argument food productions.
3. The Federal government should limit exportation of food crops to neighboring countries to avoid food scarcity due to flood.
4. The Federal /State government should construct dams to accommodate excess water from the River as well as reduce sedimentation of dams, eg water withholding dam at Dasin Hausa in Furore Local Government of Adamawa State.
5. Federal and state Governments is encouraged to timely mop up excess food produced, into its warehouses (grain reserves) and sell to people at a subsidized price during scarcity.
6. Federal and State ministries of Water Resources, Water Basin Authorities, should strengthen necessary structures for flood emergency preparednss and response, flood assessment and prediction. Emergency need assessment, identification and registration of victims should be done immediately after incidents.
7. There should be shelter support and provision of medication to victims in the flooded areas.
8. Relevant MDAs should carry out sensitization on climate change and consequences in the country on flood disaster riverine areas.
9. Rice farmers should be encouraged to plant flood resistant varieties and Government should assist to reduce losses incurred by farmers

8	Lagos	Faloye Street, Ijanikin LGA	- Heavy rainfall - Poor drainage		- Flooded roads - Displaced persons	The Guardian Newspaper Wednesday, September 5, 2018
9	Nassarawa	Shabu, Lafia	- Flood		- Hundreds of displaced persons	The Guardian Newspaper Wednesday, Sep tember 5, 2018
10	Kano	Rimin Gado LGA, Gabasawa LGA, Getso Town, Gwarzo LGA	- Heavy flooding	9	- 5 injured - 4,475 people affected	Daily Trust Newspaper Thursday, September 6, 2018
11	Niger	Kontagora LGA	- Heavy flooding	5		Daily Trust Newspaper Thursday, September 6, 2018
12	Yobe	Damaturu LGA	- Flood		- 595 people affected	Daily Trust Newspaper Thursday, September 6, 2018
13	Anambra	Orunmba North Council	- Erosion - Heavy rainfall		- 5 homes lost	The Guardian Newspaper Thursday, September 6, 2018
14	Kwara	Harmony Estate, Akerebiata, Gerin Alimi, Isale koko and Kulende	- Heavy rainfall - Flood		- Vehicles swept away	Daily Trust Newspaper Saturday, September 8, 2018
15	Lagos	Oshodi-Apapa expressway	- Heavy flood		- Impassable flooded roads	The Guardian Newspaper Sunday, September 9, 2018
16	Niger	Mokwa LGA, Lapai LGA, Lavun LGA, Borgu LGA and Shiror LGA	- Heavy flood	12	- 89 communities affected in Mokwa - 500 houses destroyed - 1000 people displaced	Daily Trust Newspaper Sunday, September 9, 2018
17	Kogi	Kogi/Kotonkarfe LGA, Lokoja LGA, Ibaji LGA and Ofu LGA	- Heavy rainfall - Flood		- 45,000 people displaced	Daily Trust Newspaper Tuesday, September 11, 2018
18	Niger	Lapai LGA	- Heavy rainfall - Flood	4	- 8,000 people displaced	Daily Trust Newspaper Tuesday, September 11, 2018
19	Katsina	Baure Local Council, Kurfi LGA, Sabon-Unguwa, Wurma, Kofar Yamma, Birchi, Tsauri, NAsarawa, Kofar Fada and Kofar Ruwa	- Rainstorm	3	- 6 people injured - 880 houses destroyed - over 100 families rendered homeless	The Guardian Newspaper Tuesday, September 11, 2018
20	Kano	Rimingado LGA, Gabasawa LGA, Gwarzo LGA (Getso Town), Dawakin Kudu, Kura, Warama, Minjibir, Wudil LGA	- Flood	19	- 4,475 people affected	Kano Chronicle Wednesday, September 12, 2018

Table 14.20: Docxumentation of Flood Occurences and Damages in Nigeria in 2018

S/N	State	LGA	Flood Issues	No. of Deaths	Damages	Sources
1	Lagos	Mafoluku, Oshodi, Oshodo/Isolo LGA	- Blocked Canal - No free flow of rain water			The Guardian Newspaper Sunday, June 3, 2018
2	Katsina	Jibia LGA [Unguwar Kwa-Kwa, Unguwar Mai Kwari, Tudun Takar (new and old), Dan Tudu]	- Four hours rainfall (11pm - 3am on Monday) - Water level over 10 feet	53	- Animals killed - 500 houses destroyed - Electrical installation damaged - Roads damaged - 20 missing - 2604 people displaced	Daily Trust Newspaper July 17, 2018 July 21, 2018
3	Ondo	Ayetoro	- Atlantic Ocean overflowed - Ocean moved 500metres inland from its bank		- 25 houses destroyed - 200 persons displaced	The Guardian Newspaper Sunday, July 29, 2018
4	Abuja	Karshi	- Heavy rain flood	2		Daily Trust Newspaper Tuesday, June 5, 2018
5	Edo	Benin City	- Flood 9 feet - Deep open gutter - Rising water levels - Heavy rainfall	1		The Guardian Newspaper Wednesday, July 18, 2018
6	Adamawa	Yola South, Yola North, Girei, Fufore, Numan, Demsa, Lamode, Guyuk and Shelleng	- Heavy downpour		- Destroyed farmland (100ha) - Submerged	Daily Trust Newspaper Sunday, September 2, 2018
7	Kebbi	Fakai (Mahuta) LGA, Danko Wasagu (Kanya)LGA	- Heavy rainfall	10	- Farmland and livestock destroyed - Collapsed bride - 48 houses destroyed	Daily Trust Newspaper Monday, September 3, 2018

21	Abuja	Abuja- Kaduna Highway	- Flood		- Submerged houses	Daily Trust Newspaper Tuesday, September 11, 2018
22	Edo	Etsako Central LGA	- Flood		- Several houses submerged	Daily Trust Newspaper Wednesday, September 12, 2018
23	Ekiti	Ado-Ekiti	- Heavy rainfall - Flood		- Overflooded highway	The Guardian Newspaper Wednesday, September 12, 2018
24	Nassarawa	Moraraka, Kani LGA	- Heavy rainfall	3	- Houses and property suffered damages	Daily Trust Newspaper Wednesday, September 12, 2018
25	Kano	Kini LGA	- Heavy rainfall - Flooding	3	- Houses destroyed	Daily Trust Newspaper Wednesday, September 12, 2018
26	Rivers	Port Harcourt, Obio AKpor LGA (yigbo, Old Ahoada, Nkpohu-Rumuigbo, Obiwali Rd, Rumuekini)	- Heavy floods		- Thousands displaced - Millions-worth property destroyed	Daily Trust Newspaper Saturday, September 15, 2018
27	Edo	Udaba, Ofukpo, Agbaburu, Osomegbe, Ukpeko, Ugochi and Anegbette	- Oveflow of river NIger		- Submerging of farmlands	Daily Trust Newspaper Saturday, September 15, 2018
28	Taraba	Gassol, Ibbi, Lau, Karim Lamido	- Flooding - Heavy rainfall - Release of water from The Lagddo Dam		- Farmlands submerged - Millions-worth crops lost - Bridge collapse in Gassol	Daily Trust Newspaper Saturday, September 15, 2018
29	Kebbi	Bagudo, Shanga, Yauri, Ngaski, Lolo, Dandi and 13 more LGAs	- Heavy rainfall - Flooding from the river Niger	19		Daily Trust Newspaper Saturday, September 15, 2018
30	Niger	Shiroro LGA, Bagudu-Alhaji Umoru, Rafin Gora, Sani-Farin, Mutum, Mashigi-Gungu, Ungwar Aboki	- Heavy flooding	40	- Millions-worth property destroyed -Submerged farmlands - Over 2,000 persons displaced	Daily Trust Newspaper Saturday, September 15, 2018
31	Delta	Abuta, Otuogu, Akwuebunu LGAs	- Heavy rainfall - Flooding		- Thousands displaced - Houses submerged	Daily Trust Newspaper Saturday, September 15, 2018
32	Kogi		-Flooding		-45,000 people displaced	The Guardian Newspaper Sunday, September 16, 2018
33	Kano	Wudil, Warawa, Garya, Gabasawa	- Flooding	31	- Over 10,000 houses destroyed - Property worth 5 billion Naira destroyed - Farmlands submerged or utterly destroyed	Daily Trust Newspaper Tuesday, September 18, 2018

34	Ogun	Abeokuta	- Flood water		- Submerged houses, shops (750 buildings) - Caps cascaded into ogun river -6,030 persons displaced	The Guardian Newspaper Sunday, 29, 2018
35	Kebbi	Shanga and Yauri LGAs	- Flood		- Farmland submerged (rice farm) - 13,000ha of rice - Shanga - 8,000 ha of rice - Yauri	Daily Trust Newspaper Thursday, August 16, 2018
36	Sokoto	Sabon Birni LGA	- Heavy downpour		- 40 houses destroyed -11km road destroyed -Domestic animals and farm produce were lost	Daily Trust Newspaper Monday, August 27, 2018
37	Kaduna	Kaduna North (Ungwar Pama), Ungwar Romi, Karatudu	- Heavy downpour	2		Daily Trust Newspaper Monday, August 27, 2018
38	FCT	Yaba community in Abayi Area Council	- Torrential rainfall -Oveflow of Gurara		- Houses and farmland destroyed - Collapsed bridge	Daily Trust Newspaper Monday, August 27, 2018

15.0 CONCLUSION AND RECOMMENDATIONS

15.1 Conclusion

The 2018 Wet Season Agricultural Performance Survey presents a holistic picture of agricultural activities and development in the country within the reporting period. The results showed general increases in economic activities in the agricultural sector (especially cultivation areas and production estimates). Overall, the study shows that there would be bountiful harvest for most crops in 2018 with exception for rice, sorghum and cassava. The reason for the exception is the recent incidences flood occurrence across the country. The study also found that new lands were being opened up for production with increased gender diversification in agricultural activities. Average crop yields were however still below global and African averages.

Production constraints documented ranged from challenges of climate change, problems of insecurity and militancy as well as poor support for agricultural extension activities. These affected all the sectors of the agriculture value chain (crops, livestock, fisheries and aquaculture, and agro forestry).

15.2 Recommendations

Based on the various observations, findings and challenges from the field, as well as the conclusion, the following recommendations are made:

1. **The need to revamp extension and advisory activities across the states:** The status and impact of extension activities at the state (ADP's) and local government levels are at critically low status. Government at federal, state and lower levels should develop a strategy for efficient and timely funding of activities of ADPs and other agricultural extension and advisory providers in the country. The government should explore the option of engaging N-Power (Agro) youths in agricultural extension activities to improve the extension system. FMARD should also foster an enabling environment that would allow for public private partnerships and networks to strengthen to extension and advisory activities across the nation
2. **Options to mitigate the challenges of climate change and floods:** Floods and other impacts of climate change are becoming of increasing occurrence. The Federal government should therefore make increased and sustained investments in flood risk management and advance warning and pre-planning strategies to significantly reduce the impact from flooding. Federal government through relevant agencies may need to introduce water storage areas as well develop a range of temporary or "demountable" defences in at-risk areas. There is urgent need for FMARD and NEMA to work with other relevant agencies to establish an agriculture-based rapid response and think-tank unit to develop a robust masterplan in responses to such monumental occurrences of imbalances to agriculture and the ecosystem. The unit will be responsible, among other things, for developing and promoting coping and mitigation strategies. Food assistance is the main priority need of households in flooded states, the government and the humanitarian community need to ensure that assistance is available to those most in need. The NAERLS along with NHISA and NIMET should be supported to provide information to the general public as well as relevant international and national bodies

on flood risk awareness, flood preparedness, flood risk communication, flood risk management and social vulnerability.

3. **Increased investment in agricultural mechanization to reduce drudgery and cost of labour:** Agriculture in Nigeria still involves utilization hand used tools with attendant high drudgery and low efficiencies. FMARD should intensify efforts using Public-Private Partnership in tractor and input service delivery in the state to boost production and position agriculture in its rightful economic place. There should also be a sustainable strategy to allow for regular acquisition ofnew tractors and repairs of dysfunctional ones which will allow for incremental increase in production.
4. **Strengthening of e-Extension centres to boost agricultural advisory delivery:** There is need to leverage on recent advances in ICT to bridge the information disconnect to farmers due to the dearth of agricultural extension agents nationwide. FMARD to strengthen the NAERLS for improved use of ICT to cater for the information needs of farmers and other clientele. The National Farmers' Helpline Centres should be given all the necessary support (human and material resources, as well as a conducive policy environment) to be fully operational. Telecom Service providers should be encouraged as part of their national corporate service to support provision of services to farmers through the NFHL by allowing for integration of the NFHL sort code into their respective networks.
5. **The perennial pastoralists/ farmers' conflict has continued unabated over the years.** FMARD work with relevant agencies to develop a strategic plan with specific milestones including a national stakeholder's workshop of farmers, pastoralists, academia, policy makers etc.
6. **Crop and Livestock Data:** The agricultural sector subsector lacks national baseline data with implications on planning and policy. FMARD should work with relevant national and international development partners to advance a strategy for collective action to generate high quality agricultural performance data as well as an innovative and sustainable funding mechanism to support agricultural data generation and management. FMARD should particularly strengthen the capacity of NAERLS, NBS as well as all national and state agencies involved with Agricultural data capture. There is need for capacity building that would allow for increased deployment and utilization of ICT applications, integration of Remote Sensing and GIS Techniques as well as increased utilization of crop simulation models. There is an urgent and critical need for a national livestock census to provide information on livestock population, profiles of livestock farmers and herders.
7. **Cassava glut:** Field reports indicated the wide occurrence of cassava glut particularly in the North Central Zone due to low prevailing market price of cassava. FMARD should develop strategies to create sustained demand for output. This will ensure improved productivity as well as secure demand in industrial and export markets.

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NFHL Center at NAERLS

About NFHL

National Farmer's Helpline (NFHL) center is an agricultural based call center that provides farmers with a wide variety of agricultural information and advisory services in real-time. The center is located at National Agricultural Extension and Research Liaison Services (NAERLS), Ahmadu Bello University, Zaria with regional office in each of the geo-political zone of the country.

Why National Farmers Helpline?

Traditional extension services like physical contact with farmers cannot meet the demands of millions of farm families in Nigeria.
However, with the growing penetration of mobile telephony across the length and breadth of the Nigeria, a phone-based extension delivery system will help bring extension services to millions of Nigerians in real-time.

Benefits of National Farmers' Helpline

- Bridge the extension agents-farmers ratio
- Connect farmers to extension enlightenment programmes.
- Provide linkage to all agricultural stakeholders along the agriculture value chain
- Serve as helpdesk to all farmers along agricultural value chain of all commodities

Feature of NFHL

- Coverage-Nigeria, including major mobile networks providers.
- Country-Wide number: **081-3989-0090** or **070-3486-3961**
- Call-forwarding facility with on-site experts
- Provide information to farmers in local languages (Hausa, Igbo& Yoruba).
- Operates from 8:00am to 5:00pm daily. Excluding weekends and public holidays.

NAERLS

VISION

To be foremost institute for agricultural extension research and capacity development for effective delivery services increased agricultural productivity, sustainable agricultural growth and wealth creation.

MISSION

To develop, collate, evaluate and disseminate proven and relevant agricultural innovation and research on extension methodologies and provide leadership in capacity building of stakeholders to meet the present and future agricultural development challenges of the country.

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