2020 WET SEASON AGRICULTURAL PERFORMANCE IN NIGERIA

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NATIONAL REPORT

National Agricultural Extension and Research Liaison Services (NAERLS)
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National Agricultural Extension and Research Liaison Services,

Ahmadu Bello University

P.M.B. 1067

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

OCTOBER 2020

Vision

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

Mission Statement

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

Mandate

- *Advance the frontiers of agricultural extension research and services*
- *Conduct agricultural performance assessment and provide feedbacks*
- *Build the capacity and skill of key actors in agricultural extension services*
- *Plan, coordinate, monitor and evaluate REFILS activities nationwide*
- *Package and disseminate improved agricultural innovations to target users in Nigeria*
- *Review and support the extension activities of agricultural research institutes*

PREFACE

One of the core mandates of NAERLS is the annual assessment of agricultural performance. Despite the COVID-19 Pandemic, the 2020 Wet Season Agricultural Performance Survey was conducted from 23rd to 30th August, after the lockdown was relaxed. In conducting the Survey, NAERLS collaborated with the following Agencies and Organisations: Federal Department of Agriculture (FDA), Federal Department of Agricultural Extension (FDAE), Planning and Policy Coordination Department (P&PCD), Federal Department of Fisheries and Aquaculture (FDF&A), Federal Department of Animal Production and Husbandry Services (FDAP&HS); Federal Department of Veterinary and Pest Control Services (FDV&PCS), National Agricultural Seeds Council (NASC); National Bureau of Statistics (NBS); Nigerian Meteorological Agency (NIMET); The Nigeria Incentive-Based Risk Sharing System for Agricultural Lending (NIRSAL), Institute for Agricultural Research (IAR); Institute of Agricultural Research and Training (IAR&T); Lake Chad Research Institute (LCRI); National Roots Crops Research Institute (NRCRI), National Cereals Research Institute (NCRI); Nigerian Institute for Oil Palm Research (NIFOR); National Animal Production Research Institute (NAPRI); Sokoto Rima River Basin Development Authority (SRRBDA), Sasakawa Global 2000 (SG2000), 36 States and FCT Agricultural Development Programmes (ADPs), 36 State Ministries of Agriculture and FCT Department of Agriculture.

Nineteen (19) teams consisting of 56 scientists covered the 36 States and the Federal Capital Territory (FCT). A monitoring team of six scientists, one per geo-political zone, participated in the survey. Agricultural production situation was assessed as well as impact of floods on food production due to widespread incidence of flood in the country. The impact of COVID-19 on agricultural production was also part of the survey. The 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 agro-pastoral situation across the country. The survey also provides insight 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 are put together into an executive summary and national report, which are usually circulated to all States, relevant agencies and other stakeholders. The report provides findings and data that can guide policy formulation and focused research in agriculture. Floods are becoming increasingly a common and recurring disaster annually in the country; therefore, reports of floods were documented nation-wide. The frequency, severity, and spread of these floods increased significantly and were monitored up to September 2020. In an effort to improve the quality and reliability of the data generation, NAERLS continually explores best options in strengthening the capacity of key partners in data collection and management.

NAERLS sincerely appreciates farmers and farmers' groups, officials of Ministries, Departments and Agencies (MDAs) at Federal and State levels for contributing substantially to the success of the field work. We are highly indebted to the Honourable Minister of Agriculture and Rural Development, Alhaji Muhammad Sabo Nanono and the Honourable Minister of State, Alhaji Mustapha Baba Shehuri for their untiring support. We greatly appreciate the support of the Board Chairman of NAERLS and Vice-Chancellor of Ahmadu Bello University, Zaria, Prof. Kabiru Bala. As stakeholders browse this report, suggestions and comments are welcome for improvement.

Prof. M. K. Othman
Executive Director, NAERLS
E-mail: director@naerls.gov.ng, **Website**: www.naerls.gov.ng

LIST OF ACRONYMS/ABBREVIATIONS

ADP	-	Agricultural Development Programme
AfDB	-	Africa Development Bank
APS	-	Agricultural Performance Survey
APSR	-	Agricultural Performance Survey Report
ASC	-	Agro-Service Centres
BES	-	Block Extension Agent
CAYS	-	Crop, Area and Yield Survey
CBARD	-	Community Based Agricultural and Rural Development
CGIAR	-	Consultative Group on International Agricultural Research
COVID-19	-	Coronavirus Disease 19
EA	-	Extension Agent
ECOWAS	-	Economic Community of West African States
FAO	-	Food and Agriculture Organization of the United Nations
FCT	-	Federal Capital Territory
FDA	-	Federal Department of Agriculture
FDAE	-	Federal Department of Agricultural Extension
FDF&A	-	Federal Department of Fisheries and Aquaculture
FDAP&HS	-	Federal Department of Animal Production and Husbandry Services
FDV&PCS	-	Federal Department of Veterinary and Pest Control Services
FNT	-	Forthnightly Training
IAR	-	Institute for Agricultural Research
IAR&T	-	Institute of Agricultural Research and Training
ICRISAT	-	International Crops Research Institute for the Semi-Arid Tropics
LCRI	-	Lake Chad Research Institute
LGA	-	Local Government Area
MoA	-	Ministry of Agriculture
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
NAPRI	-	National Animal Production Research Institute
NBS	-	National Bureau of Statistics
NCRI	-	National Cereals Research Institute
NiMET	-	Nigerian Meteorological Agency
NIRSAL	-	Nigeria Incentive-Based Risk Sharing System for Agricultural Lending
NRCRI	-	National Root Crops Research Institute
NPAFS	-	National Programme on Agriculture and Food Security
NPFS	-	National Programme on Food Security
ODK	-	Open Data Kit
OFAR	-	On Farm Adaptive Research
PM	-	Programme Manager

P&PCD	-	Planning and Policy Coordination Department
RID	-	Rural Infrastructure Department
RTEP	-	Root and Tuber Expansion Programme
SG2000	-	Sasakawa Global 2000
SPAT	-	Small Plot Adaptation Technique
SRRBDA	-	Sokoto Rima River Basin Development Authority
SSP	-	Single Super Phosphate
T&V	-	Training and Visits
ZEO	-	Zonal Extension Officer

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EXECUTIVE SUMMARY

The 2020 Wet Season Agricultural Performance Survey was conducted between 23rd and 30th August. The survey was carried out by NAERLS in collaboration with the Agricultural Development Programmes (ADPs) and Ministries of Agriculture (MoAs) of the 36 States, Departments of the Federal Ministry of Agriculture and Rural Development, Research Institutes, other Federal Agencies and NGOs. The survey results and findings are summarized below.

Weather Situation

Generally, there was less rainfall in 2020 than 2019. There was late onset of rains across the zones and the distribution pattern changed. The southwest and most of the north central zone like Kwara, Kogi, Niger, Benue, Plateau and Nasarawa States experienced cessation of rainfall for between 5 - 6 weeks between July and August. There was also cessation of rain of between 2 and 4 weeks in the southeast zone as well as Edo state. The data also showed widescale occurrences of flood in many parts of the country.

Farm Inputs Procurement and Distribution

About 27 States reported procuring and distributing seeds and seedlings, agrochemicals, fertilizers and farm equipment to farmers. However, the inputs were found to be inadequate and largely unaffordable to farmers. The major seeds and seedlings procured and distributed were maize, rice, sorghum, soybean, millet, sesame, cowpea, cassava cuttings, pepper, oil palm, plantain and banana. The sources of the seeds and seedlings procured were private seed companies, State governments and special projects. Moreover, farmers were able to access limited fertilizers (NPK, Urea, SSP and liquid fertilizers) for their fields through the following sources: governments (of 24 States providing subsidy), Rice Farmers Association of Nigeria (RIFAN) and the open markets. Also, State governments procured and distributed tractors, draught implements, agro-processing equipment, power tillers, reapers, and bulls to farmers in 25 States.

Pests and Diseases Incidence

Incidences of pests and diseases on crops were reported in more than 30 States. The prominent pests and diseases of tuber crops were mosaic, leaf wilts, bacterial blights, rodents and birds with an estimated yield loss of 30%. Cereals and legumes were generally infested with army worm, stem borers, pod borers, and birds. Fall army worm was reported in all the States, with an average yield loss of 45%. Control measures taken included the use of chemicals, application of good agricultural practices (GAP), practice of integrated farming, destruction of disease nests and some cultural control methods.

Agricultural Mechanization and Animal Traction

The total number of functional government tractors reported for 2020 in Nigeria was 642, which was a 58.39% decrease from the 1,534 tractors reported in 2019. In the private sector, the available functional tractors were 2,205, an increase of 7.40% over the 2,053 reported in 2019. With regard to animal traction, Adamawa had the highest number of bulls (200,000), while Gombe had the least number of 6,150 among the 12 states that reported animal traction activities.

Cost of Tillage Operation

There were increases in the costs of tillage operations, as well as for land clearing in the northeast and northwest zones. There was, however, some reduction in these costs in some States of the north-central (Kwara, Benue, Kogi and Plateau) and in the southwest.

Grain Reserves

There were silo complexes owned and operated by the Food and Strategic Reserves Department of the Federal Government and some State governments. Four States in the northeast and six States in the north-central zones have functional strategic grain reserves of storage capacities ranging from 4,000MT to 25,000MT for maize, sorghum, millet, and gari. Three States each in the southeast and south-south have functional grain reserves with capacities between 25,000 and 100,000MT**.**

Cost of Production of Major Crops

The costs of producing major crops generally increased across the country, sometimes by as much as 167% (as recorded in Imo State for rice production). There were also instances of cost reductions-for example, the costs for cowpea and millet reduced by 52.7% and 52.0% respectively in Borno State. The increases were especially alluded to the high costs of inputs occasioned by the economic restrictions imposed globally as a result of Covid-19.

Food Commodity Prices

The survey results also showed that market prices of foods experienced significant increases, ranging from 11% for groundnut in Adamawa, through 35% for paddy rice in Bauchi and 50% each for beef in Kwara and goat meat in Sokoto, to 83% for rice in the southeastern States.

Production Estimates of Major Crops

Rice

The estimated cropped area for rice in 2020 was 4,195,070Ha, which represented an increase of about 1.66% over the 4,126,670Ha cultivated in 2019. Owing to the flood that affected some States, the national rice output is estimated to decrease by 3%, that is, from 8,435,610 tons in 2019 to about 8,171,750 tons in 2020. About 76% of the States recorded decrease in the output of rice.

Maize

The total estimated land area cultivated for maize in 2020 is about 6,048,610Ha, indicating a 0.25% increase over the 6,033,410Ha cultivated in 2019. Similarly, maize production declined from 12.6 million tons in 2019 to 12.4 million tons in 2020 representing a 1.55% reduction arising from rainfall deficit (prolonged dry-spell) in the South West, North-Central and some parts of the South East Zones, flooding in some parts of the North East and North West Zones and inadequate fertilizer application on maize farms.

Sorghum

Sorghum is mostly grown in the Northern States of Nigeria with total estimated planted land area of 5,799,590Ha in 2020, indicating a decline in cultivated land area of 0.37% relative to 5,821,240Ha recorded in 2019. The production of sorghum in 2020 recorded a drop in the North East and North West zones, when compared to what was obtained in 2019. Some States in the North Central Zone

also recorded a decrease in production when compared to 2019. The output of sorghum of 6,590,400 tons represented a decrease of about 1.17% compared to 2019 production figure of 6,668,240 tons.

Cowpea

The total land area put to production of cowpea in 2020 was 4,973,520Ha which is an increase of 0.86% over 4,931,320Ha cultivated in 2019. The North Central Zone is the highest producer of cowpea, contributing over 29% of cowpea production in the country. The zone is closely followed by the North East, which contributed 25% of the total output. National output figure for cowpea in 2020 (4,132,830 tons) showed an increase of 1.68% when compared to that of 2019.

Groundnut

Groundnut is produced mainly in the Northern States but some few southern States also produce some amounts. The estimated land area put to production of groundnut in 2020 was 3,596,420Ha, a slight increase of 0.5% over 3,578,670Ha cultivated in 2019. Although some of these States recorded marginal increase in the production of groundnut, the North Central Zone recorded a decline in production. The percentage increase on a national scale was 0.52%, that is, from 4,441,010 tons in 2019 to 4,464,020 tons in 2020

Soybean

The estimated land area put to production of soybean in 2020 was 1,207,740Ha, representing an increase 5.2% over the 2019 figure of 1,148,050Ha. The North Central and North West zones are the major soybean producing areas, accounting for 82% of national production. The major producing States are Benue, Kaduna, Taraba and Niger. Nationally, the crop recorded an increase of 5.48% over the figure of 2019, that is from 1,048,510 tons in 2019 to 1,105,950 tons in 2020. Increase in the production of soybean occurred largely because farmers of cereals such as maize and sorghum shifted to legumes that require less fertilizer application.

Cassava

Cassava is cultivated in all agro-ecological zones of Nigeria. Estimated cassava area in 2020 was 9,609,080Ha reflecting a 1.71% decrease from 9,776,650Ha of 2019. The major producers of cassava are States in the North Central, the South-South, South-East and South West zones. Cassava is one of the major root crops in the country but it did not record a significant change in output in 2020. A decrease of about 2.47% in output is expected for cassava in 2020, from the 2019 output of 5,696,160 tons.

Livestock Production

With regards to livestock, there was a total of 20,585,000 heads of cattle in 2020, an increase of 0.2% over the 2019 data of 20,407,000; and 223,704,000 chicken, about 0.1% increase over 208,096,000 in 2019. Sheep population was 47,926,000 (0.3% more than 46,757,000 for 2019) and goats, 84,039,000, an increase of 0.2% over the estimated population of 82,714,000 in 2019. These marginal increases were recorded despite widespread livestock pests and diseases recorded, which included: Bovine Pleuroneumonia (CBPP), helminthiasis, *peste des petits ruminants* (PPR), *fasciola*, Mange and foot rot. About 8 States and the FCT distributed animal feed, supplements, disinfectants and insecticide, as well as vaccines for CBPP and PPR, day-old-chicks and turkey poults, and weaner goats.

Fisheries Production

There was generally paucity of data for artisanal fisheries production in all the agro-ecologies. However, available data showed decreases in production, compared to 2019. A few States and the FCT procured and distributed fisheries inputs to farmers, such as fingerlings, feeds, nets, outboard engines, collapsible tarpaulin ponds, cold store and smoking kilns.

Flood Damage Assessment

Flooding occurs in Nigeria annually with devastating impacts on the poor and vulnerable populations who live along the river banks and other flood prone areas. As at September 2020, 24 States and the FCT were affected with different severity of damages to crops, livestock, cultured fish, social and farm infrastructures and human lives. Flood situations were reported in almost all the States in Northern Nigeria with the exception of Benue State. However, flooding was reported in six States in the Southern part of the country. Major crops affected were rice, maize, sorghum and cassava with different severity of damages. Suggested strategies that can be used in assisting the distribution of relief materials and farm inputs to the affected farmers includes direct assistance through cash transfer using the farmers' BVN and reaching farmers through their cooperatives, registered groups or associations.

Impact of Coronavirus Pandemic on Agricultural Production

The Agricultural Performance Survey 2020 revealed that 99.7% of the farmers were aware of the COVID 19 pandemic and 76% of the farmers received such knowledge from community health workers as well as the broadcast media (TV and Radio) through the National Centre for Disease Control (NCDC). The pandemic disrupted food production systems, posing a great threat to farmers' livelihoods as well as national food and nutritional security. The pandemic adversely affected livestock and fisheries production. In many places, loss of demand and difficulties in reaching consumers has led to volatile prices. In addition, the health and safety measures implemented reduced labour mobility all along the supply chain.

Constraints to Agricultural Production

With regards to the general constraints to agricultural productivity in 2020, the study showed that the global Covid-19 pandemic caused a rise in the prices of inputs averagely by over 90% and shortage of farm labour by 67%, among others. Moreover, flooding and draught/ prolonged dry spells destroyed thousands of hectares of rice, maize and sorghum fields across the nation. The results also show that government inputs were largely inadequate and unavailable/ inaccessible. The data also indicated that extension activities have continued to decline, a worrisome trend since 2009. One state ADP was even scrapped entirely and the staff posted to different Ministries in the state. The ADPs were highly under-staffed and underfunded. The poor funding situation implied that farmers were left without quality information for agricultural decisions. Finally, the survey showed that there has been a drastic increase in insecurity matters across the nation, from cattle rustling, to kidnapping, militancy and banditry.

1.0. INTRODUCTION

The Agricultural Performance Survey (APS) is one of the key mandates of the National Agricultural Extension and Research Liaison Services (NAERLS), Ahmadu Bello University, Zaria. Tools for the survey are reviewed each year for improvement in the data collection and outputs. Stakeholders on agricultural data generation and dissemination consisting of Federal, States, National and International Governmental and non-Governmental Organizations validate the survey tools for inclusiveness of issues in agricultural development across the sector and related sectors. ADP and Ministry of Agriculture staff across the country were trained virtually on the use of ODK to capture data and on correct filling of the study tools which were dispatched ahead of the field exercise to relevant Departments in the Federal and State Ministries of Agriculture, the State Agricultural Development Projects and other agencies. The essence of this is to enable these agencies collate and certify the available data prior to the commencement of the survey.

The survey has four strategic objectives;

- Assess the performance of the agricultural sector during the wet season and forecast the likely production outputs for the year;
- Identify 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 action.

The 2020 APS field work was conducted between 23rd and 30th August by the Institute in collaboration with the following agencies and organisations: Federal Department of Agriculture (FDA), Federal Department of Agricultural Extension (FDAE), Planning and Policy Coordination Department (P&PCD), Federal Department of Fisheries and Aquaculture (FDF&A), Federal Department of Animal Production and Husbandry Services (FDAP&HS); Federal Department of Veterinary and Pest Control Services (FDV&PCS), National Agricultural Seeds Council (NASC); National Bureau of Statistics (NBS); Nigerian Meteorological Agency (NIMET); The Nigeria Incentive-Based Risk Sharing System for Agricultural Lending (NIRSAL), Institute for Agricultural Research (IAR); Institute of Agricultural Research and Training (IAR&T); Lake Chad Research Institute (LCRI); National Animal Production Research Institute (NAPRI); National Roots Crops Research Institute (NRCRI), National Cereals Research Institute (NCRI), Sokoto Rima River Basin Development Authority (SRRBDA), Sasakawa Global 2000 (SG2000), 36 States and FCT Agricultural Development Programmes (ADPs), 36 State Ministries of Agriculture and FCT Department of Agriculture.

The APS Report is usually presented publicly during the World Food Day celebration by the Honourable Minister of Agriculture and Rural Development. Findings in the report assist the Government in assessing the agricultural sector performance as well as providing policy direction in achieving the desired food security drive of the country.

2.0. METHODOLOGY

Nineteen (19) multi-disciplinary teams of three scientists each conducted the survey across the 36 States of the Federation and FCT using Participatory Rural Appraisal (PRA) techniques. Structured questionnaire, checklists, field visits, focus group discussions, key-informant interviews and review of official documents were used in data collection.

Due to the challenges of COVID-19, an innovative on-line training was adopted to build the capacity of staff of ADPs and State Ministries of Agriculture across the country on the filling of the survey tools and on the use of ODK to capture data for the exercise.

The primary data collection instrument used was the questionnaire served to the ADPs, Ministries and other Parastatals. Sampling involved selection of two ADP zones per State, two LGAs per zone, one community per LGA and five respondents per community, giving a total of 725 respondents nation-wide. The farmers' interview covered agricultural value chain activities. In furtherance of the effort to add value to the exercise in terms of quality, utility and depth of data generated, data from farmers were captured electronically using tablets. Wrap-up sessions to validate data generated were held with officials of the State ADPs and Ministries of Agriculture and in few cases, farmer's organizations. Data collected were analyzed and results presented in tables, figures, charts and plates. The findings are presented as follows:

3.0. WEATHER SITUATION

3.1. Rainfall

Generally, lesser amount of rainfall was experienced in all the zones in 2020 compared with 2019 except North West that reported higher amount of rainfall as indicated in Tables 3.1 to Table 3.6. and Fig 3.1 to Fig 3.6. All the zones reported less rainy days in 2020 when compared with 2019 as revealed by the data in Tables 3.7 to Table 3.12 and Fig 3.7 to Fig 3.12.

There was a little delay in the commencement of rainfall across the zones in 2020 when compared with 2019 experience. Despite flood occurrence as reported by many States in the country, dry spell was also experienced especially in the Southern part of the country as indicated in Figure 3.19. It was reported that all local governments areas (LGA) in the Southwest experienced cessation of rainfall between June and August within the year. The dry spell was also reported in Anambra, Enugu and some parts of Imo and Ebonyi States in the Southeast. Edo State was as well affected by the dry spell in South South region. Also, some parts of Kwara, Kogi, Benue, Plateau and Nasarawa States reported cessation of rainfall that affected the growth of crops in the North central. Other LGAs reported to be affected by dry spell were: Obudu, Ogata, Ikom, Bekwama in Cross River State; Karasuwa, Yusufari, Bade, Jakusko, Bursari, Geidam, Yunusari in Yobe State and Argungu, Alairu, B/Kebbi, Augie in Kebbi State.

North-East Zone

Total amount of rainfall recorded in the zone for 2020 was 5104.0mm which was lower than that of 2019 (5737.7mm) by 12.4 % as indicated in Table 3.1 and Fig 3.1. The first rainfall, was experienced in the month of February in Yobe State and was fully established by May in all the States in 2020. Bauchi State experienced the highest amount of rainfall (1239.0 mm) and highest rainy days (56) in the zone while Yobe had the least rainfall (611mm) and least rainy days (29). The highest total monthly rainfall of 1904mm was recorded in the month of August in 2020 which was lower than 2019 (2386.4mm). The average total rainy days for the zone (251) in 2020 was reported lower than was obtained in 2019 (264) as indicated in Table 3.7. and Fig 3.7.

North-West Zone

Table 3.2 revealed that Kaduna and Jigawa States experienced first rainfall in March in 2020 and got established in May across the zone. The highest amount of rainfall in the zone was recorded in Kaduna State (1397 mm) while Sokoto State had the least (591 mm). in 2020. All States in the zone experienced higher total rainfall in 2020 except Jigawa when compared with 2019. The average total rainy days for the zone (372) in 2020 was reported lower than was obtained in 2019 (385) as indicated in Table 3.8.

North-Central Zone

Rainfall commenced in March across the States in 2020, unlike 2019 when the first rainfall was experienced in most States in the zone by February, 2019 as shown in Table 3.3. Nasarawa State experienced the highest amount of rainfall of 1367mm while Niger State had the least (768 mm). The highest total rainfall for the zone in 2020 was recorded in July (2332mm) which was higher than 2019 (2252.2mm). The average total rainy days for the zone was 476 in 2020 was reported lower than was obtained in 2019 (545) as indicated in Table 3.9.

South-West Zone

Rainfall commenced early in January 2020 in Lagos, Oyo, Ogun and Ekiti States. The rainfall became fully established in the month of March across the States. The month of June recorded the highest total rainfall (3251mm) in 2020 which was higher than 2019 (3075.9mm). Oyo State recorded the highest total rainfall (1346mm) while Ondo State recorded the least (675mm) in 2020 as indicated in Table 3.4. The average total rainy days for the zone in 2020 (587) was lower than in 2019 (776) as indicated in Table 3.10.

South-East Zone

Anambra State had the highest total rainfall (1977 mm) while Ebonyi State recorded the least (941 mm) in 2020. All States experienced first rainfall by March in 2020 which was contrary to what was experienced in 2019 where most States in the zone witnessed first rainfall in February and indicated in Table 3.5. The month of July recorded the highest amount of (1954mm) in the zone in 2020 which was lower than was obtained in 2019 (2469.3mm). The average total rainy days for the zone was 365 in 2020 and was lower than was obtained in 2019 (442) as indicated in Table 3.11.

South-South Zone

Cross - Rivers State recorded the highest amount of rainfall (1484 mm) while Akwa- ibom recorded the least (997mm) in the zone in 2020. All States experienced first rainfall in March, 2020 while in 2019 most States in the zone witnessed first rainfall in February as indicated in Table 3.6. The month of July recorded the highest amount of rainfall (3295mm) which was lower than was obtained in 2019 (4119.9mm). The average total rainy days for the zone was 757 in 2020 and was r lower than was obtained in 2019 (907) as indicated in Table 3.12.

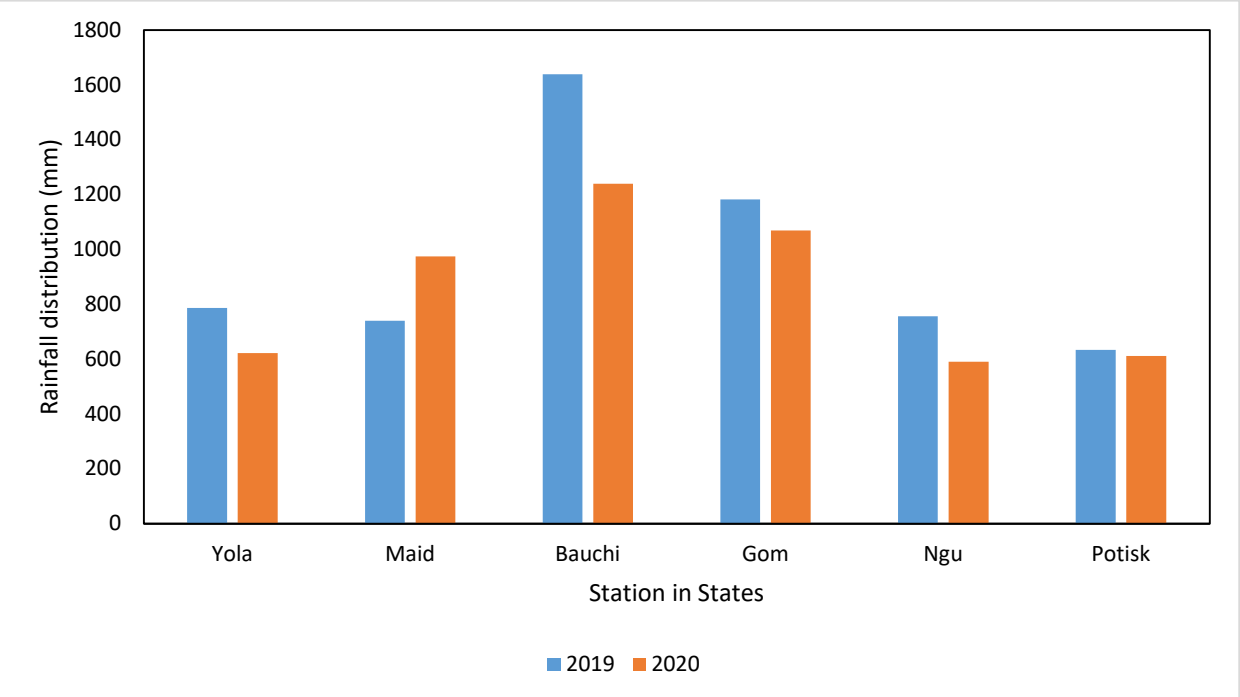


Figure 3.1: North-East Rainfall Distribution (Jan – Aug)

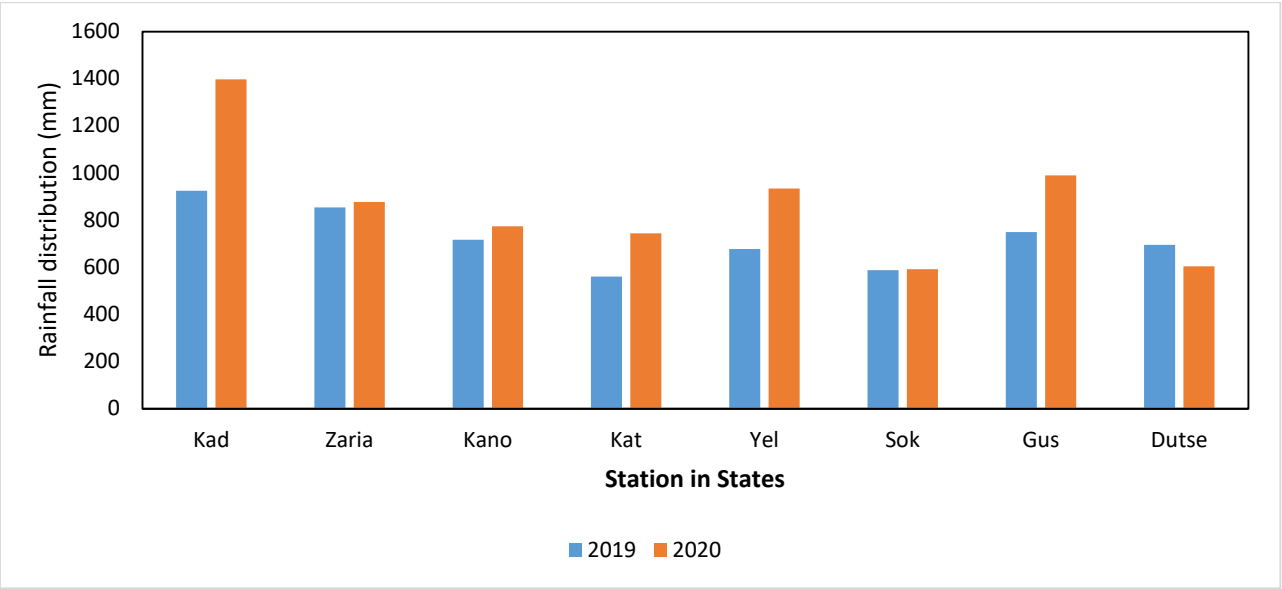


Figure 3.2: North-West Rainfall Distribution (Jan – Aug)

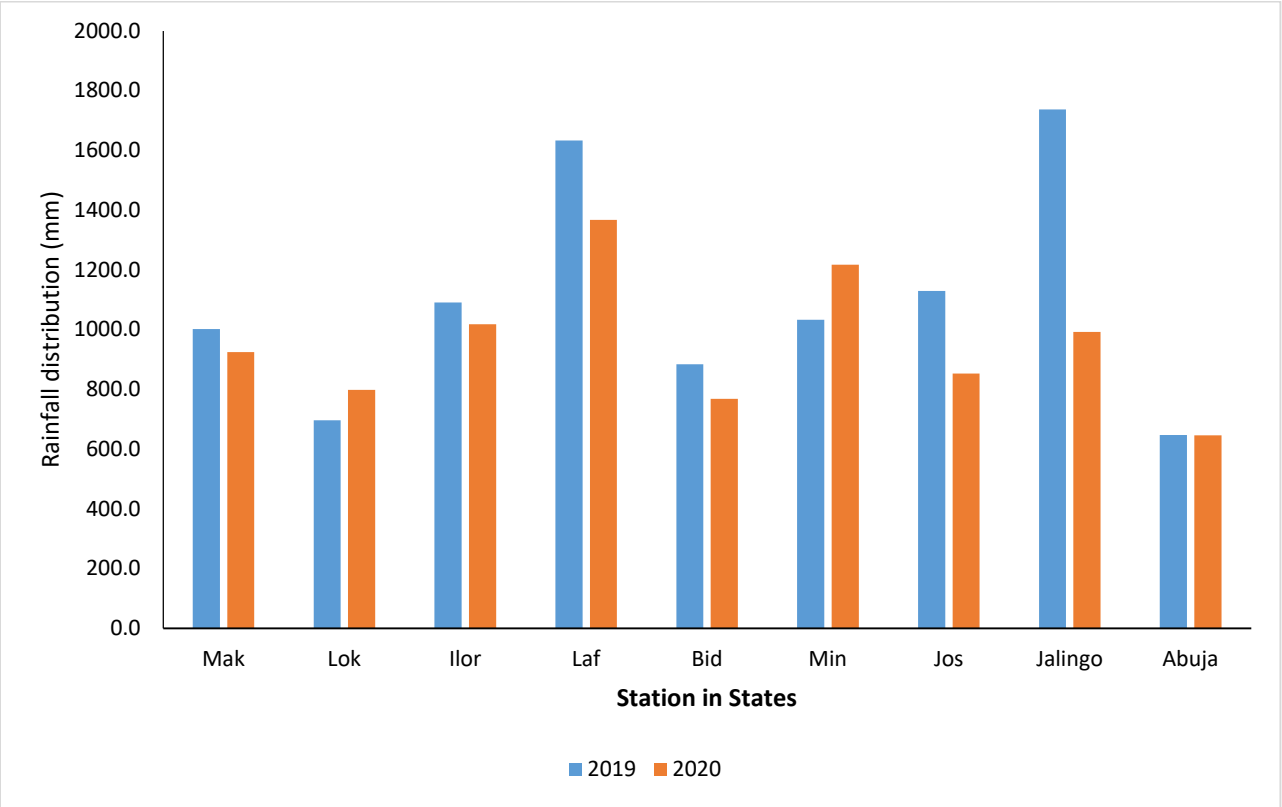


Figure 3.3: North-Central Rainfall Distribution (Jan – Aug)

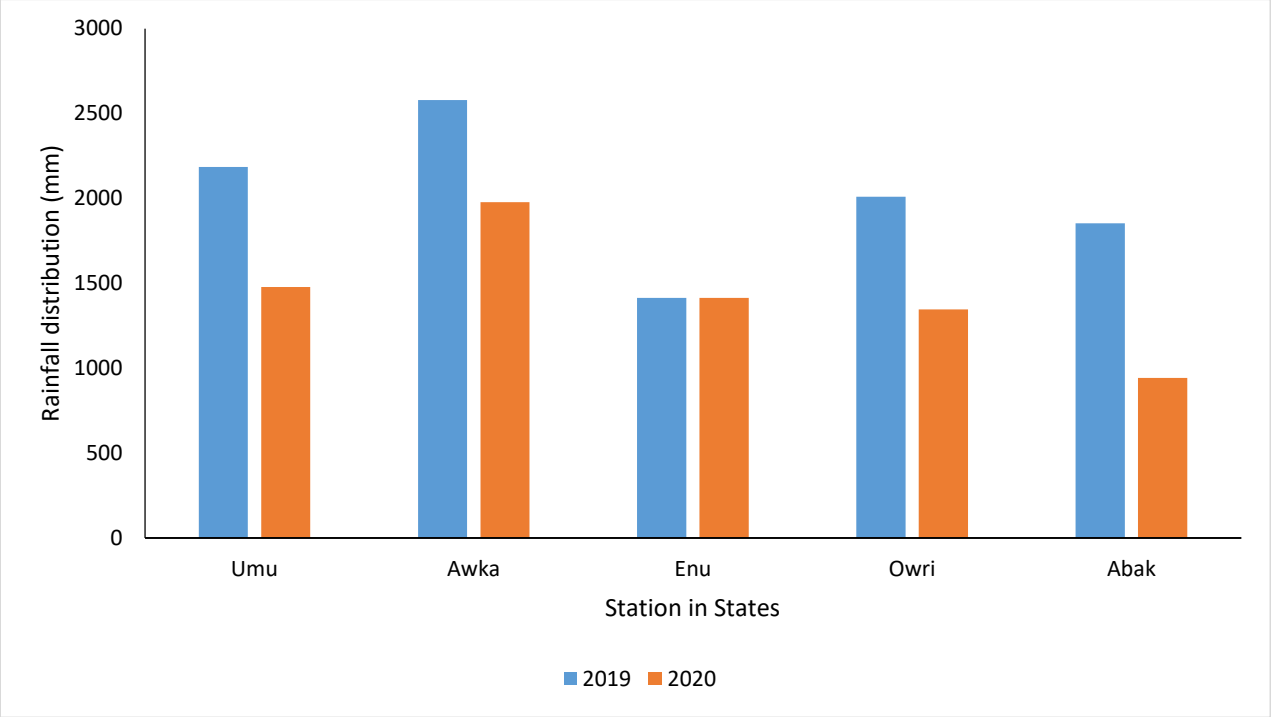


Figure 3.4: South-East Rainfall Distribution (Jan – Aug)

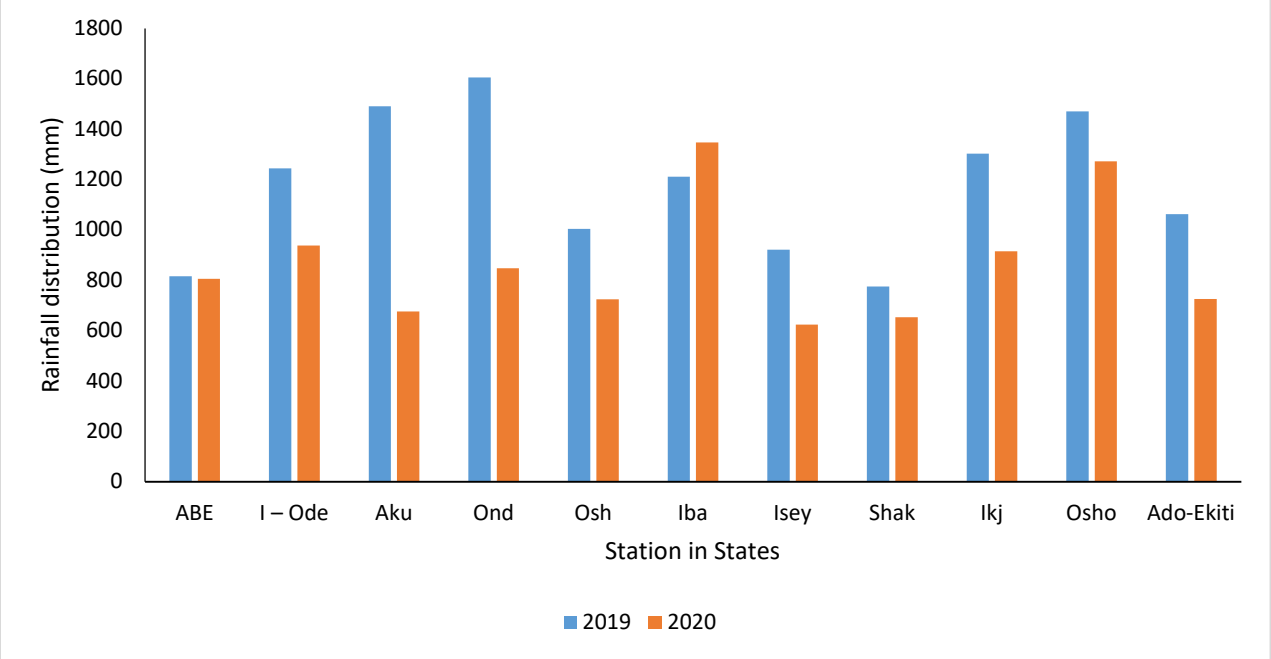


Figure 3.5: South-West Rainfall Distribution (Jan – Aug)

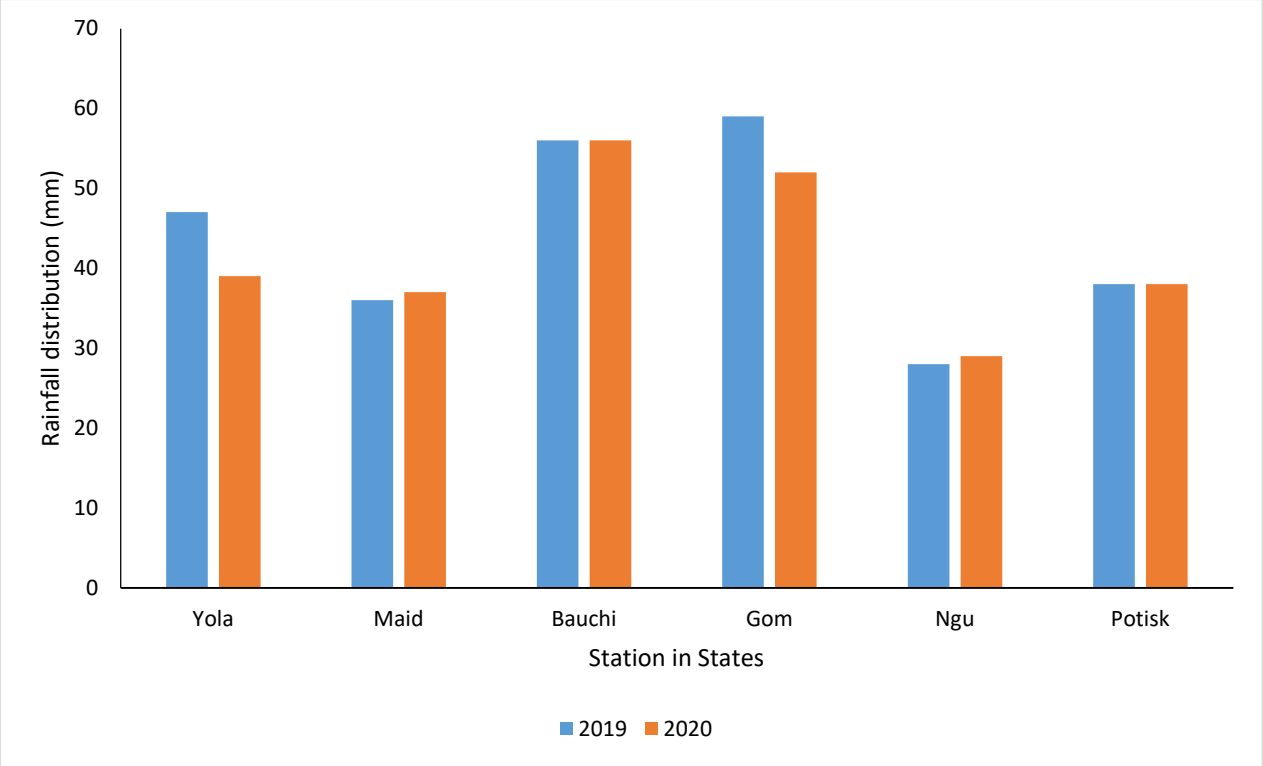


Figure 3.6: North-East Rainfall Distribution (Jan – Aug)

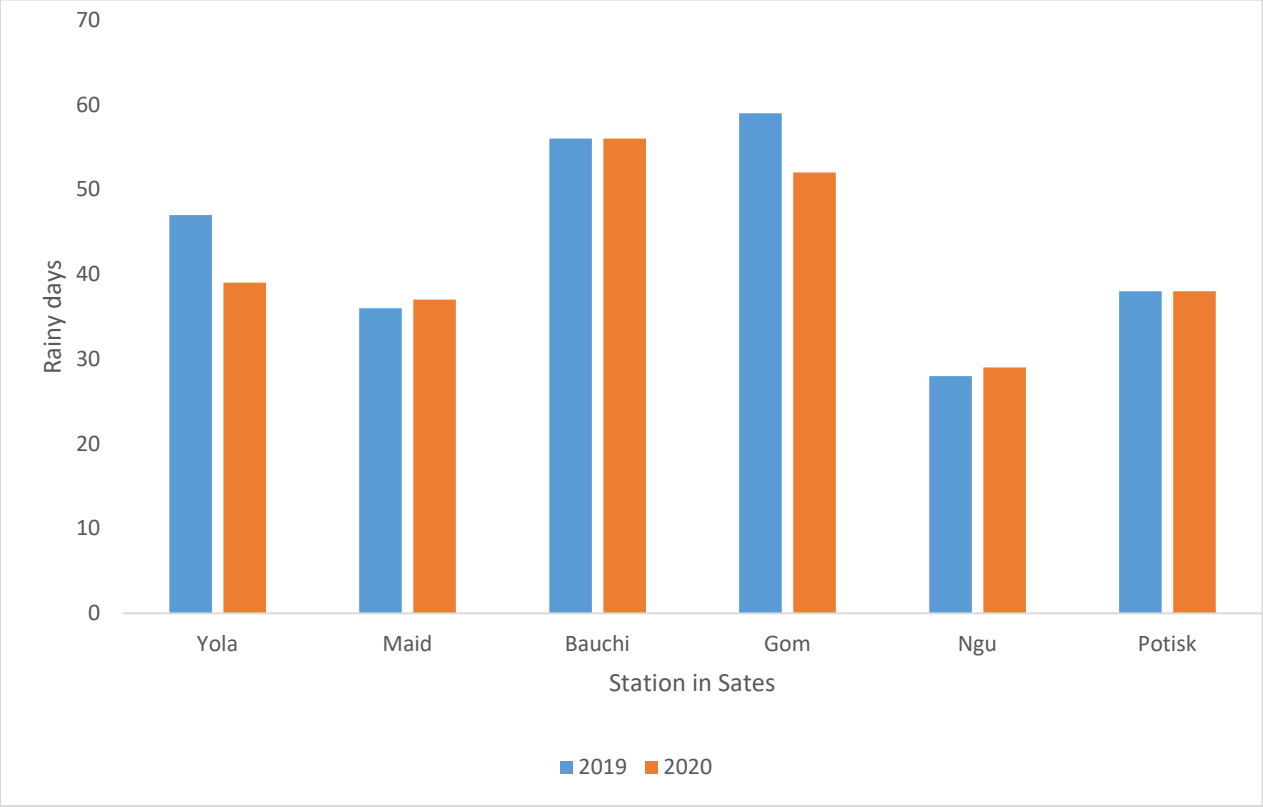


Figure 3.7: North-East Rainy days (Jan – Aug)

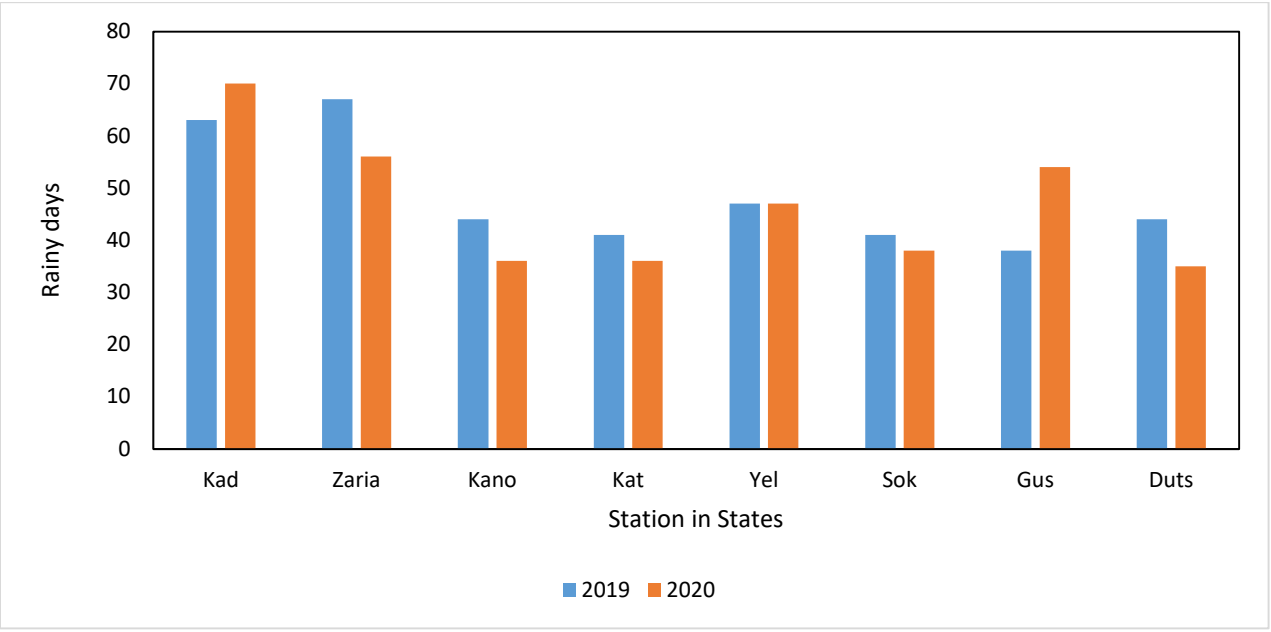


Figure 3.8: North-West Rainy days (Jan – Aug)

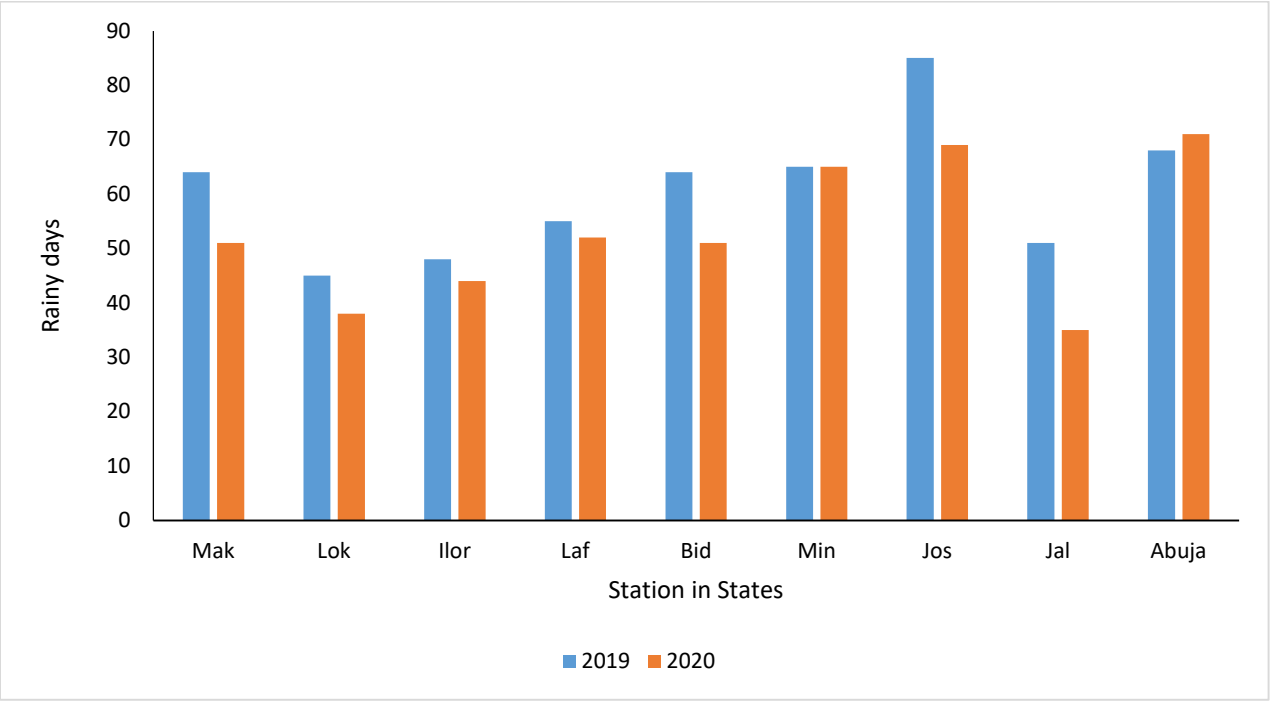


Figure 3.9: North-Central Rainy days (Jan – Aug)

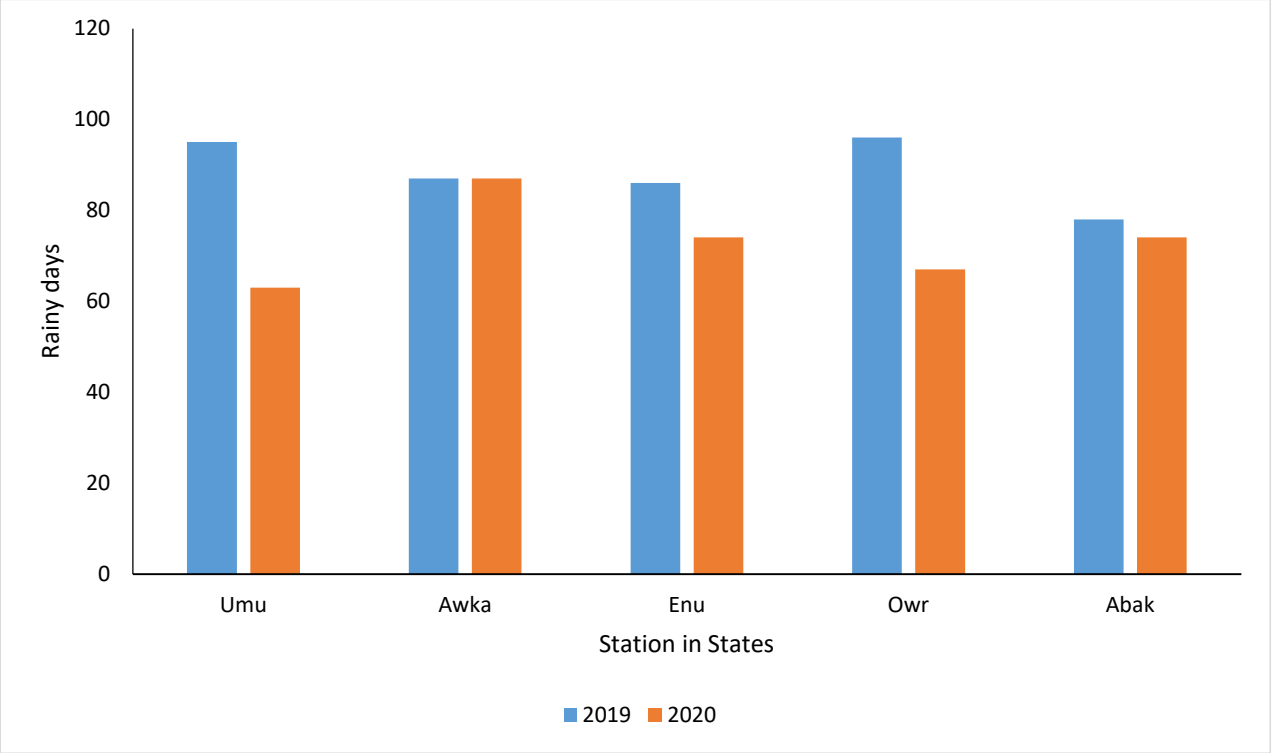


Figure 3.10: South-East Rainy days (Jan – Aug)

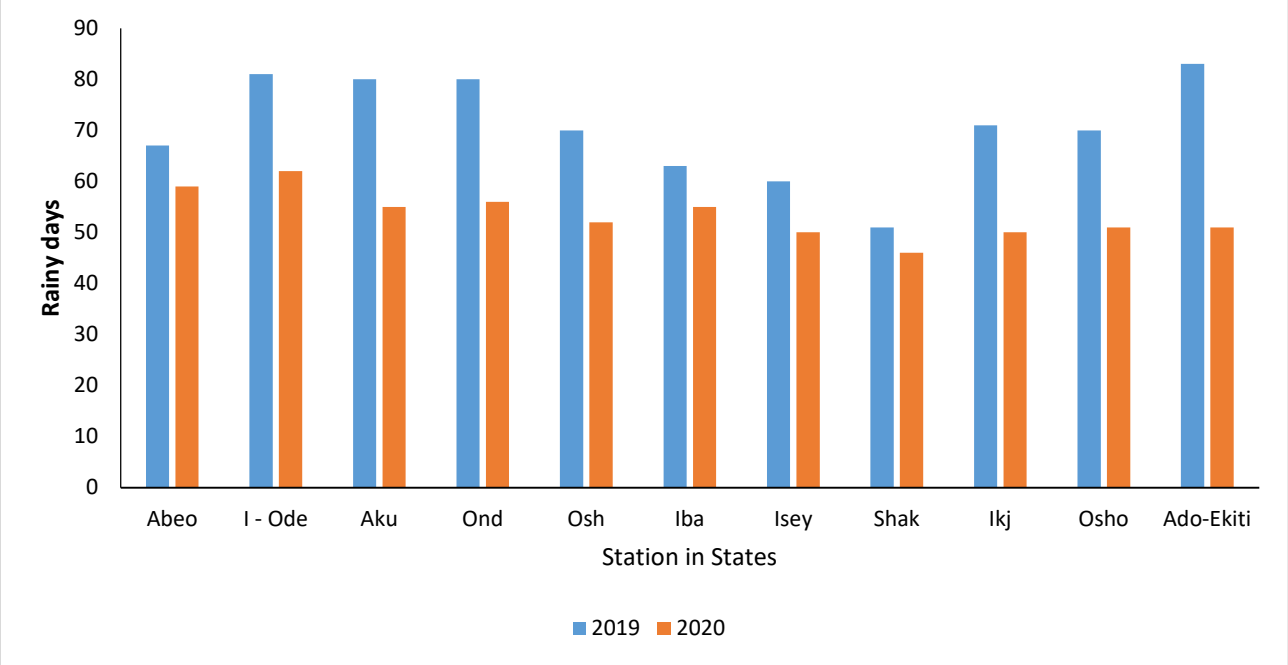


Figure 3.11: South-West Rainy days (Jan – Aug)

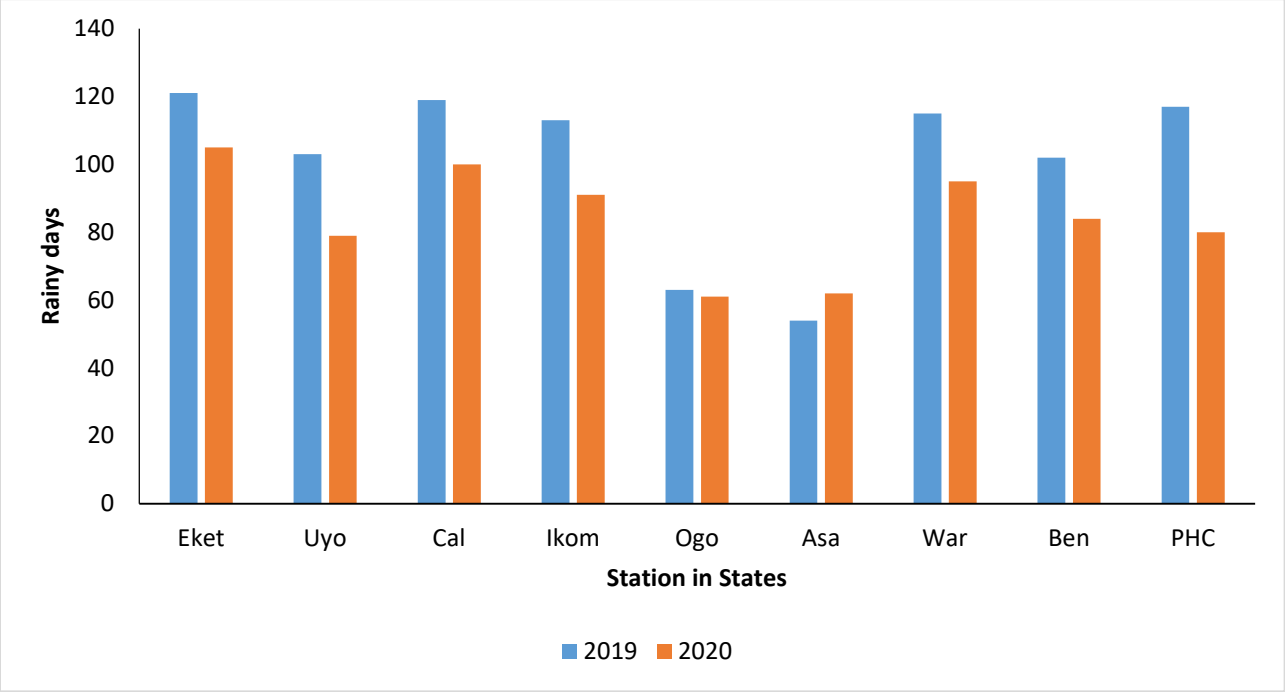


Figure 3.12: South-South Rainy days (Jan – Aug)

3.2: Temperature

Generally, there was increase in temperature in 2020 when compared with 2019 across the country.

North-East Zone

The highest mean monthly temperature of 36 ^{o}C was recorded in Nguru in Yobe State and Maiduguri in Borno States. The lowest mean maximum temperature occurred in Gombe (32.9^{o}C) in 2020 as indicated in Table 3.13. The mean temperature for the zone was 34.64 ^{o}C in 2020 which was higher than 34.29 ^{o}C in 2019 as indicated in Table 3.13. The month of April experienced the highest mean temperature of 39.59 ^{o}C, in 2020 which was lower than 40.72 ^{o}C in 2019.

North-West Zone

Sokoto State recorded the highest mean monthly temperature of 35.3 ^{o}C in 2020 while Kaduna State experienced the lowest (31.5^{o}C). The highest average monthly temperature in the zone was 40.01^{o}C in the month of April and the least was 28.75^{o}C in August for the year 2020 as indicated in Table 3.14.

North-Central Zone

Nasarawa State recorded the highest mean monthly temperature of 34.7 ^{o}C in 2020 while the lowest was recorded in Plateau State (28.2 ^{o}C). March experiences the highest average monthly temperature (37.56 ^{o}C) in 2020, which was higher than 2019 (33.28 ^{o}C). August experienced the least (29.27 ^{o}C) for the year 2020 as against 29.22 ^{o}C in 2019 as indicated in Table 3.15.

South-East Zone

The highest mean maximum temperature was recorded in Ebonyi (34.3 ^{o}C) in 2020 which was higher than 33.9 ^{o}C recorded in 2019. The lowest mean temperature was recorded in Imo 32.9^{o}C) for

2020 as against 31.1 ºC in 2019. The mean temperature for the zone was recorded as 33.39 º C in 2020 which was higher than 32.76 º C in 2019 as indicated in Table3.17.

South-West Zone

The highest mean monthly temperature was recorded at Iseyin, Oyo State (34.8ºC) in 2020 which is higher than 32.1ºC for 2019. Shaki in Oyo State recorded the least mean temperature of 31.8 ºC in 2020. The mean temperature for the zone was reported as 32.76 º C in 2020 which was higher than 32.37 º C in 2019 as indicated in Table 3.16.

South-South Zone

March recorded the highest monthly temperature (38.6ºC) in Cross River State while the lowest was recorded in Akwa-Ibom State as(27.0ºC) in the month of July for 2020. The mean temperature for the zone was reported as 32.80 º C in 2020 which was higher than 31.91 º C in 2019 as indicated in Table 3.18.

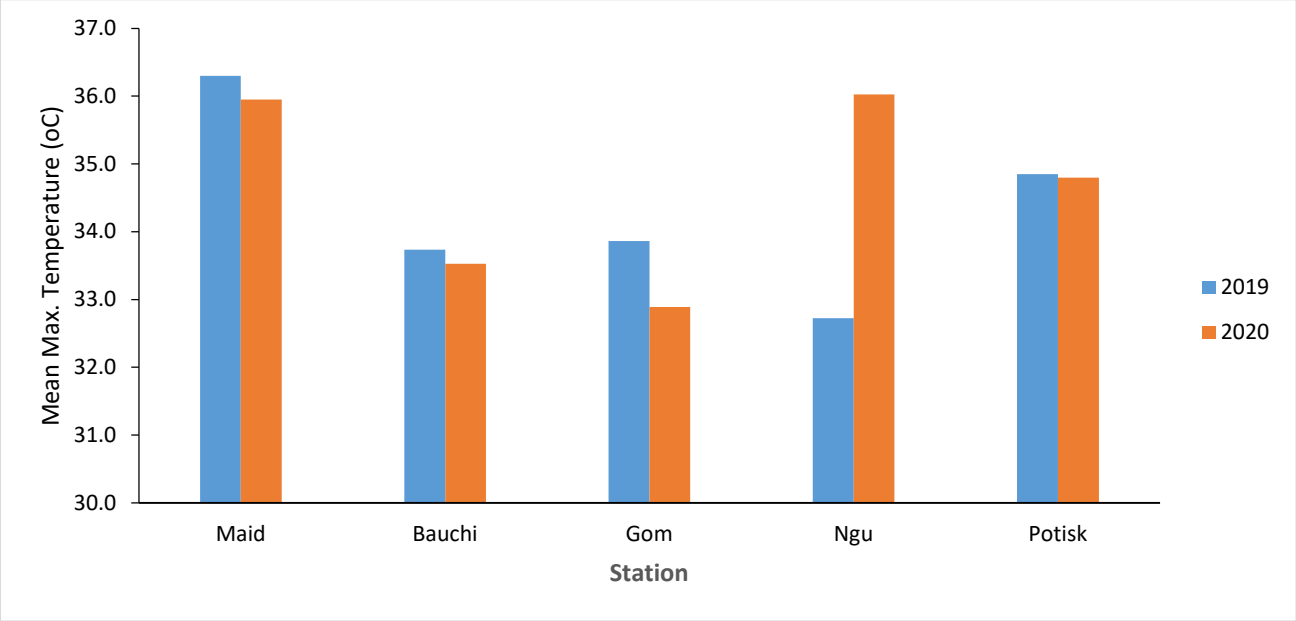


Figure 3.13: Mean Max Temperature for North-East (January - August)

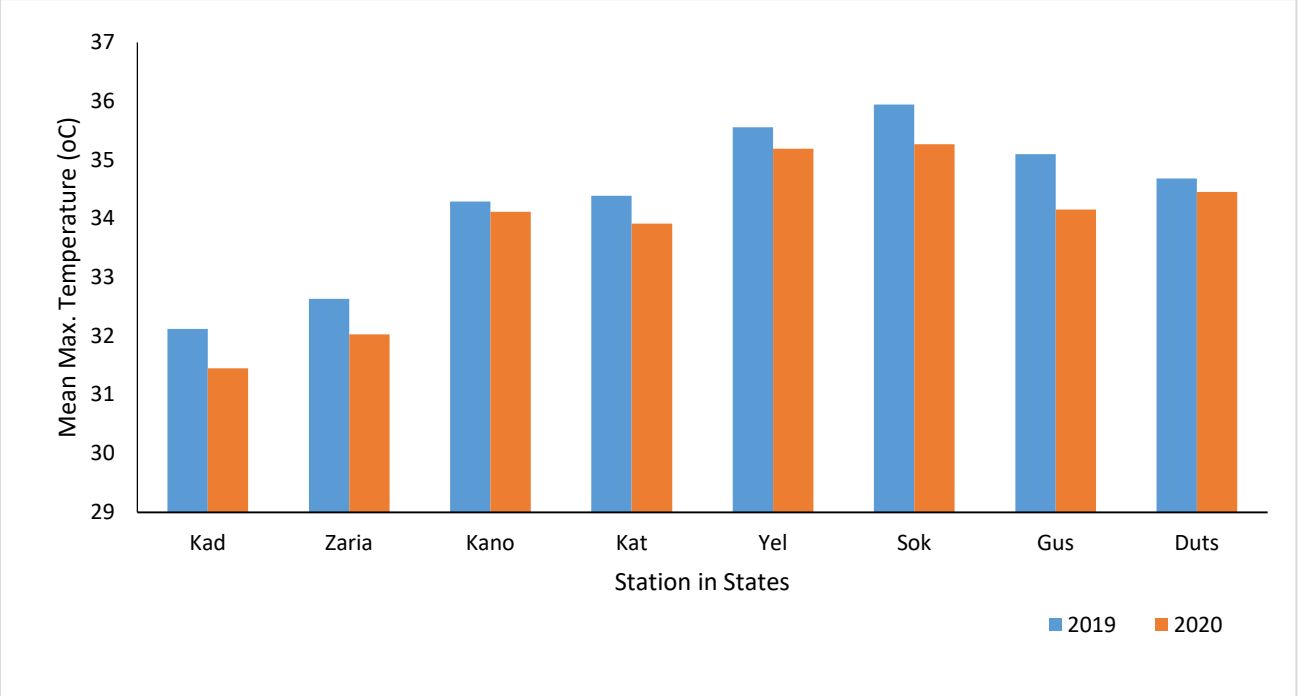


Figure 3.14: Mean Max Temperature for North-West (January - August)

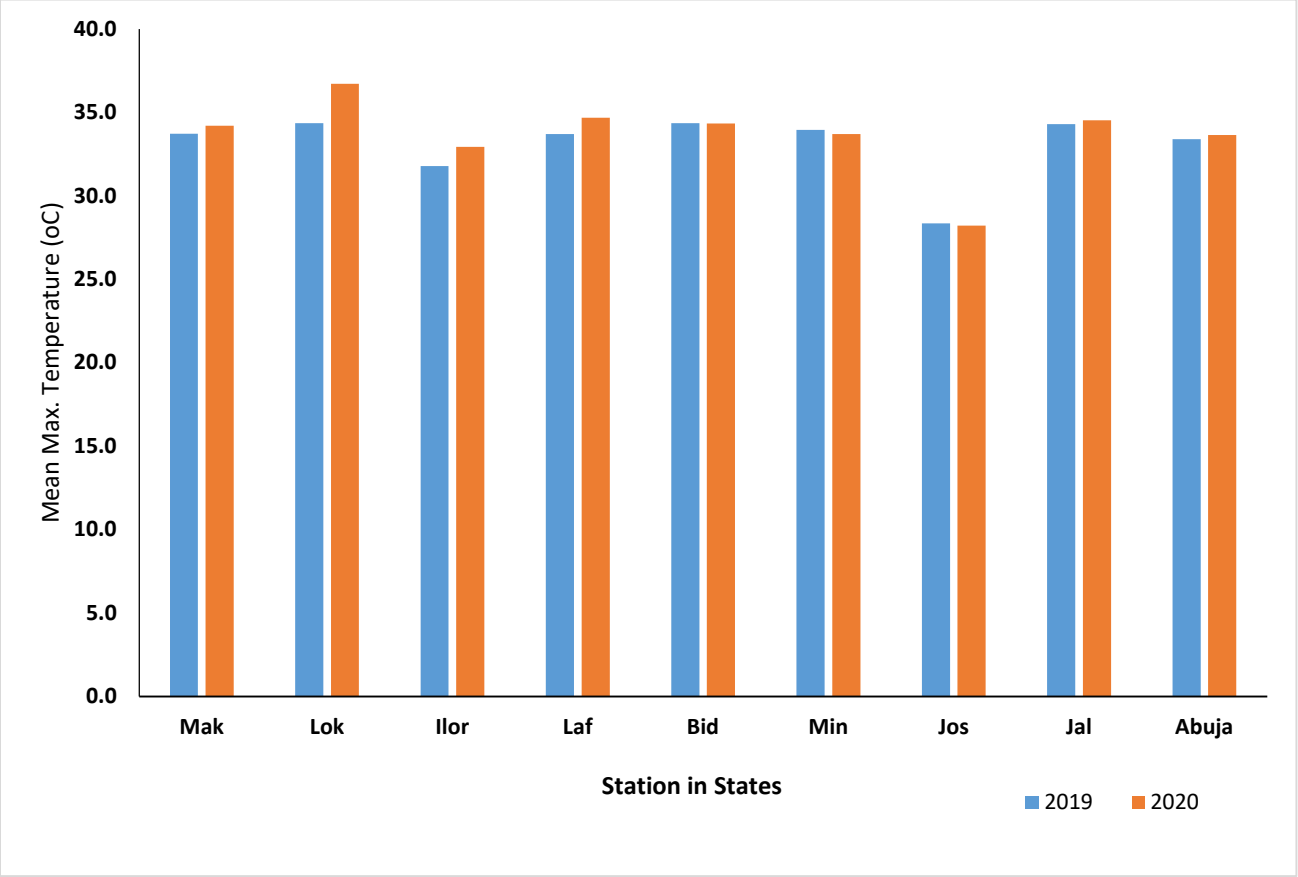


Figure 3.15: Mean Max Temperature for North-Central (January - August)

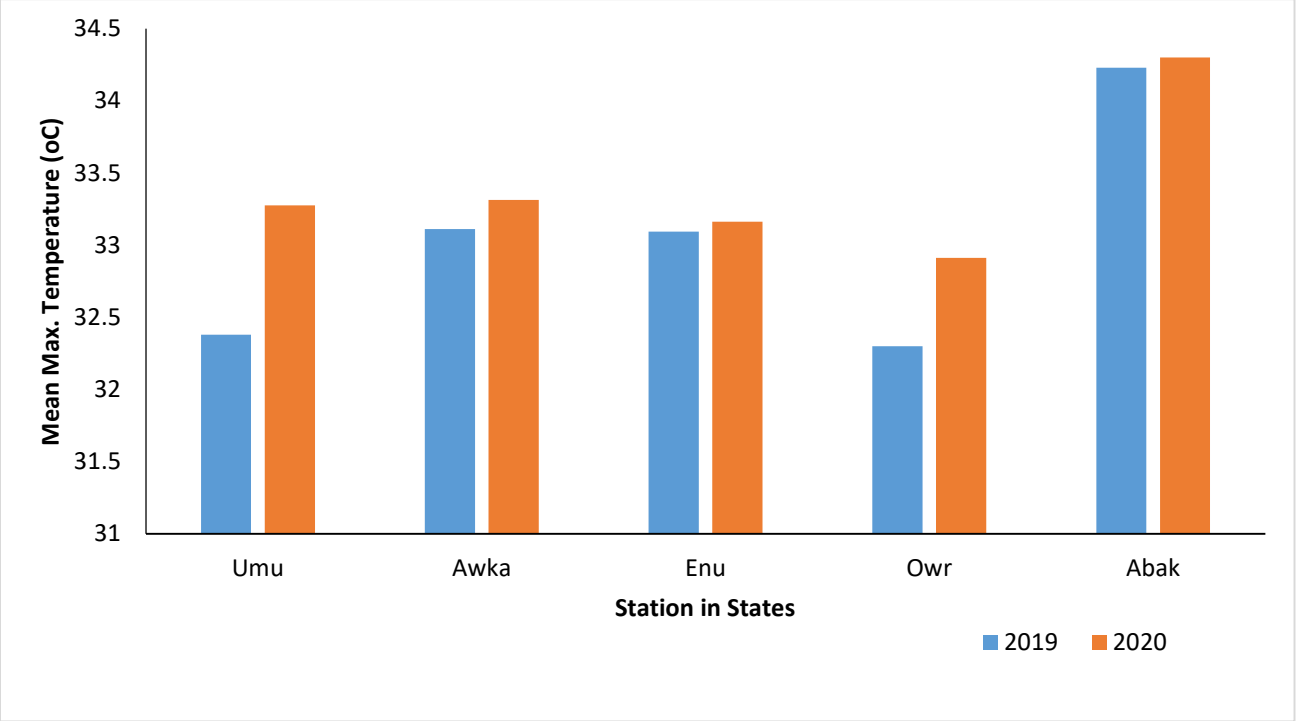


Figure 3.16: Mean Max Temperature for South-East (January - August)

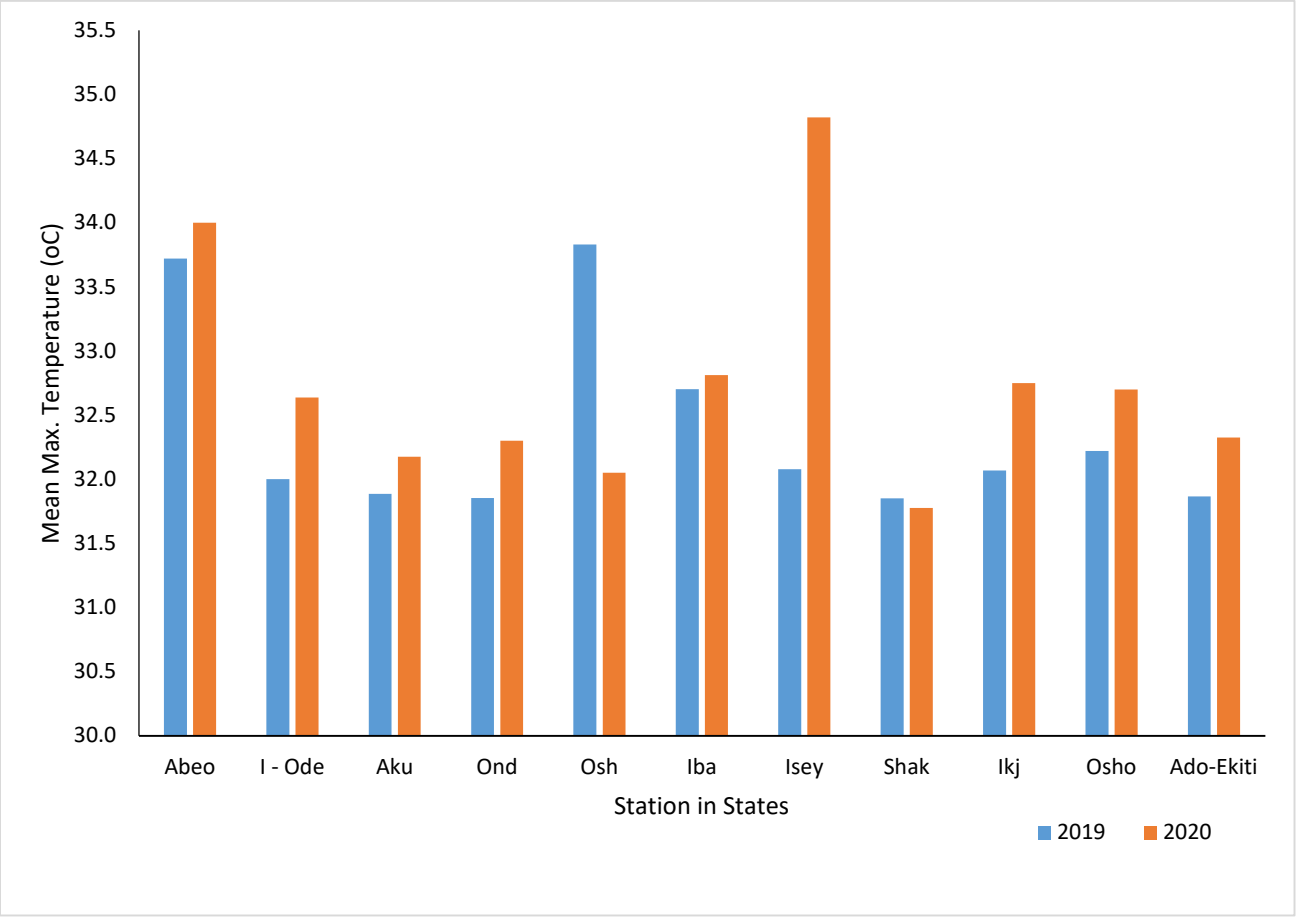


Figure 3.17: Mean Max Temperature for South-West (January - August)

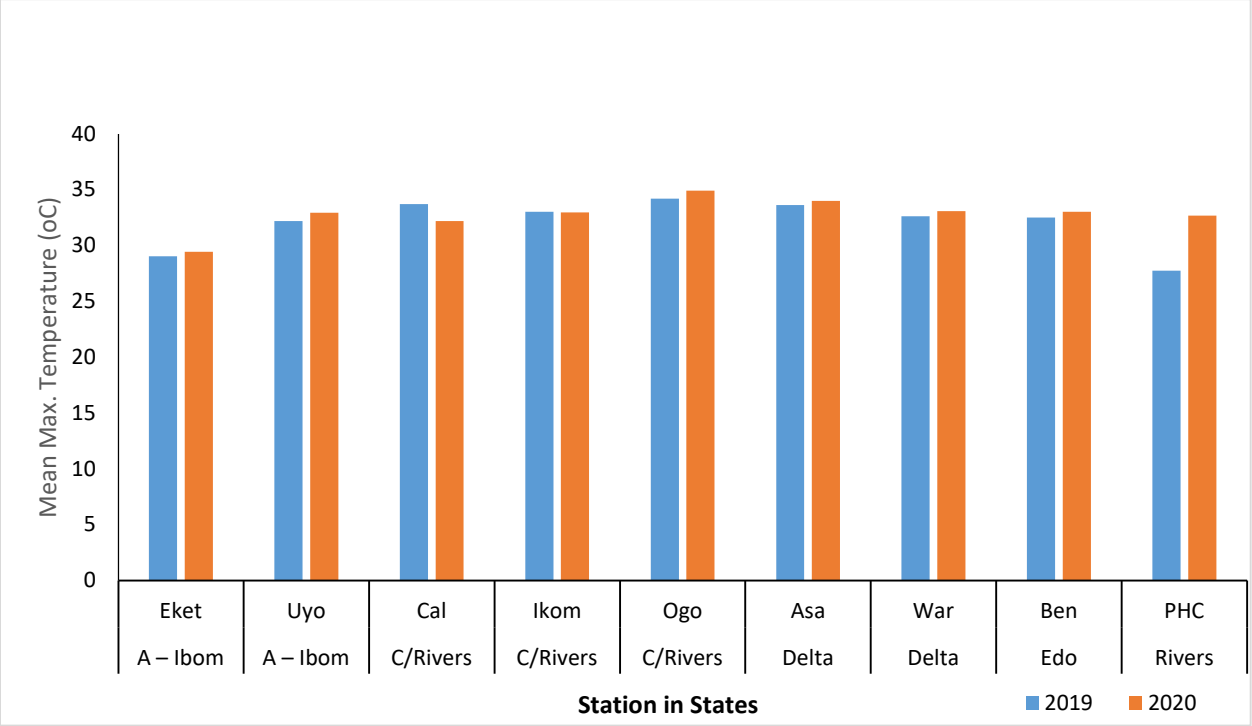


Figure 3.18: Mean Max Temperature for South-East (January - August)

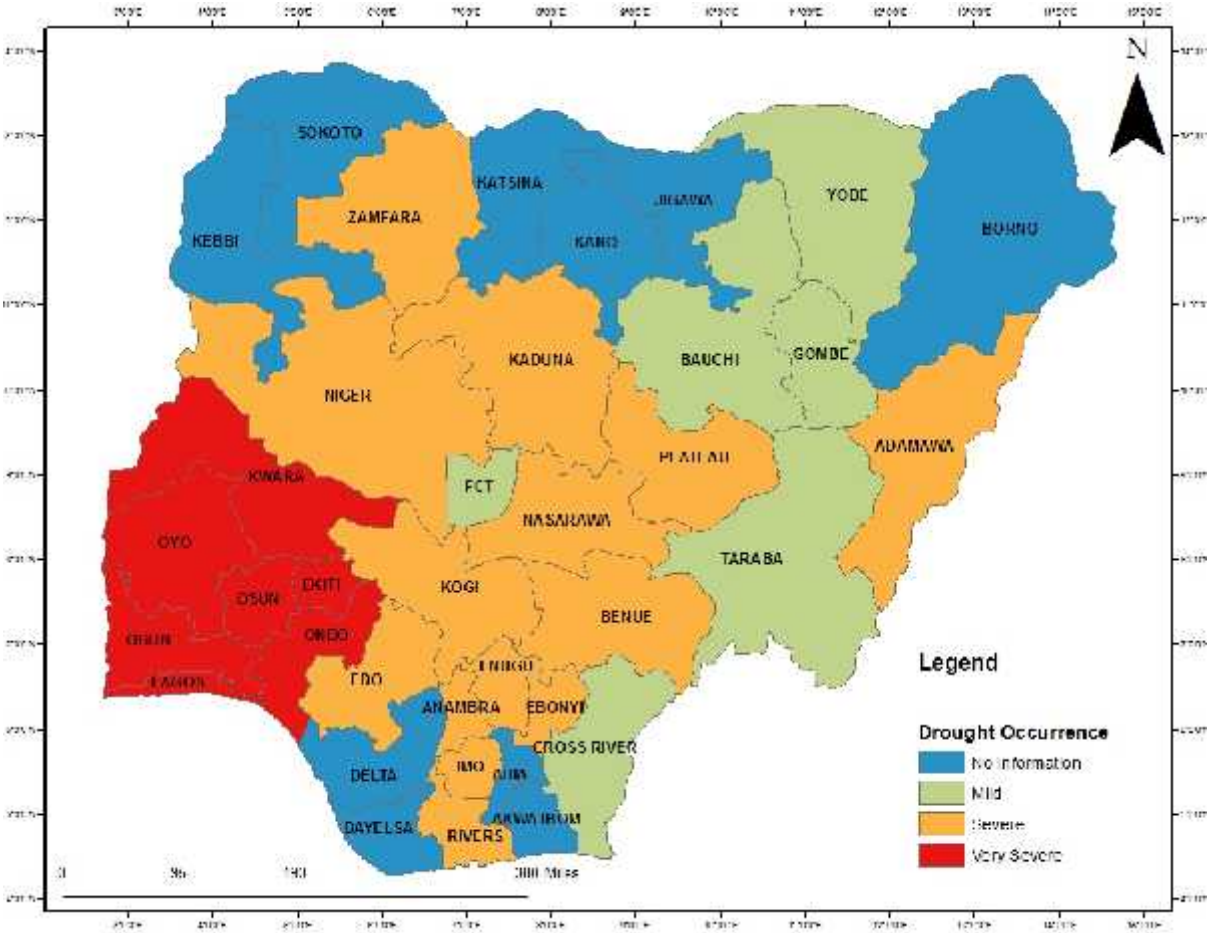


Figure 3.19: Dry Spell Occurrence in Nigeria in 2020

Table 3.1: North-East Total Rainfall (mm) January – August

State	Station	January		February		March		April		May		June		July		August		Total	
		2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020
Adamawa	Yola	0	0	0	0	0	0	20.5	12	140.5	44	169.8	153	144.8	296	310.8	116	786.4	621.0
Borno	Maiduguri	0	0	0	0	0	0	0	0	71.7	38	49.5	142	209.1	346	409.4	448	739.7	974.0
Bauchi	Bauchi	0	0	0	0	0	19	71.5	4	92.6	84	288.6	226	494.5	391	690	515	1637.2	1239.0
Gombe	Gombe	0	0	0	0	0	29	10	32	105.9	145	429	193	371.3	388	266	282	1182.2	1069.0
Yobe	Nguru	0	0	0	0	0	0	0	0	0	2	156	29	287	300	313.1	259	756.1	590.0
Yobe	Potiskum	0	0	17	0	0	0	0	0	45.7	66	37.8	115	135.3	146	397.1	284	632.9	611.0
Total		**0**	**0**	**17**	**0**	**0**	**48**	**102**	**48**	**456.4**	**379**	**1130.7**	**858**	**1642**	**1867**	**2386.4**	**1904**	**5734.5**	**5104.0**

Table 3.2: North-West Total Rainfall (mm) January - August

State	Station	January		February		March		April		May		June		July		August		Total	
		2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020
Kaduna	Kaduna	0	0	9.4	0	27.8	16	34.2	49	124.9	106	164.6	242	329.6	433	233.5	551	924.0	1397.0
Kaduna	Zaria	0	0	8.4	0	0.9	2	20	4	165.8	198	142.7	80	246.5	329	268.6	264	852.9	877.0
Kano	Kano	0	0	0	0	0	0	0	0	35.1	15	67.5	132	309.3	322	304.7	305	716.6	774.0
Katsina	Katsina	0	0	0	0	0	0	0	6	85.3	9	80.9	103	172.3	313	221.2	313	559.7	744.0
Kebbi	Yewal	0	0	0	0	0	0	37.8	28	104.8	56	72.2	90	135	311	327	448	676.8	933.0
Sokoto	Sokoto	0	0	0	0	0	0	0	2	87.7	65	55.3	112	191.9	174	252.5	238	587.4	591.0
Zamfara	Gusau	0	0	0	0	0	0	0	12	50.2	134	140.3	124	91.2	246	467.1	473	748.8	989.0
Jigawa	Dutse	0	0	0	0	0	2	0	0	19.4	74	193.6	124	217.8	208	263.9	196	694.7	604.0
Total		**0**	**0**	**17.8**	**0**	**28.7**	**20**	**92**	**101**	**673.2**	**657**	**917.1**	**1007**	**1693.6**	**2336**	**2338.5**	**2788**	**5760.9**	**6909.0**

Table 3.3: North-Central Total Rainfall (mm) January - August

State	Station	January		February		March		April		May		June		July		August		Total	
		2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020
Benue	Makurdi	0	0	36	0	1.4	4	173	86	99.6	174	220.2	224	186.6	315	321.3	122	1002.1	925.0
Kogi	Lokoja	0	0	0	0	21.8	77	56	79	80.3	187	242.8	225	106.7	209	189.2	21	696.8	798.0
Kwara	Ilorin	0	0	11.2	0	0.4	96	142.7	77	338.9	249	144	339	236.1	187	228.4	70	1090.5	1018.0
Nasarawa	Lafia	0	0	49.4	0	5.3	1	215.2	57	166.6	198	246.6	218	387.8	379	611.1	514	1632.6	1367.0
Niger	Bida	0	0	10.2	0	2	6	14.9	69	176.4	256	179.6	207	186.8	167	324.5	63	884.2	768.0
Niger	Minna	0	0	1.5	0	0	22	24.1	77	132.2	158	220.7	274	293	361	362.9	325	1032.9	1217.0
Plateau	Jos	0	0	33.4	0	44.9	20	65.1	67	270.9	153	238.1	214	323.2	172	187.4	227	1129.6	853.0
Taraba	Jalingo	0	0	14	0	0	1	237.3	5	415	0	302.1	150	391.4	353	391.3	483	1737.1	992.0
FCT	Abuja	0	0	0	0	6.4	5	20.1	45	138.2	134	114.6	173	140.6	189	226.7	100	646.6	646.0
Total		0	0	155.7	0	82.2	232	948.4	562	1818.1	1509	1908.7	2024	2252.2	2332	2842.8	1925	9852.4	8584.0

Table 3.4: South-West Total Rainfall (mm) January - August

State	Station	January		February		March		April		May		June		July		August		Total	
		2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020
Ogun	**Abeokuta**	16.4	0	67.3	0	48.7	119	65.6	87	194.1	120	177	160	190.3	299	56.2	20	815.6	805
Ogun	Ijebu-Ode	12.4	0	120.5	1	82.4	115	23.4	171	179.3	136	373.8	326	295.8	184	156.1	4	1243.7	937
Ondo	Akure	0	0	56.4	0	66.8	57	66.5	118	245.4	118	348.4	197	233.2	178	473.7	7	1490.4	675
Ondo	Ondo	0	0	18.2	0	45.4	199	98.7	137	304.7	106	394.6	321	418.7	80	323.8	4	1604.1	847
Osun	Oshogbo	0	0	10.6	15	93.7	72	105.7	83	148.9	224	242.7	233	105.9	83	295.4	14	1002.9	724
Oyo	Ibadan	0	0	9.6	2	181.2	248	119.2	145	185.6	242	373.2	439	154.6	255	186.7	15	1210.1	1346
Oyo	Iseyin	0.8	20	26.2	3	52.3	69	136.6	182	151.1	103	109.4	136	181.4	96	263.2	15	921	624
Oyo	Shaki	0	0	2.2	0	52.2	39	57.4	76	184.2	114	148.5	203	84.4	145	246.3	76	775.2	653
Lagos	Ikeja	131.7	14	172.6	14	43.5	54	156.3	133	258.6	110	332.3	412	148.9	177	57.5	1	1301.4	915
Lagos	Oshodi	155.1	0	103.9	7	39.6	103	131.2	144	233.5	194	405.4	622	340.4	201	60.8	1	1469.9	1272
Ekiti	Ado-Ekiti	9.2	0	44.2	0	102	123	135.4	75	154.1	198	170.6	202	199.8	101	246.6	26	1061.9	725
Total		**325.6**	**34**	**631.7**	**42**	**807.8**	**1198**	**1096**	**1351**	**2239.5**	**1665**	**3075.9**	**3251**	**2353.4**	**1799**	**2366.3**	**183**	**12896.2**	**9523**

Table 3.5: South-East Total Rainfall (mm) January – August

State	Station	January		February		March		April		May		June		July		August		Total	
		2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020
Abia	Umuahia	0	0	80	0	103.8	164	141.4	110	412.4	201	384	460	784.2	452	277.8	90	2183.6	1477
Anambra	Awka	0	0	96.1	0	118.2	204	160.2	239	400.7	436	775.2	325	542.7	672	485.4	101	2578.5	1977
Enugu	Enugu	0	0	14	0	76.9	131	92.7	163	252.6	288	322.8	415	369.8	272	283.8	144	1412.6	1413
Imo	Owerri	24.7	0	70	0	52.7	81	183.6	180	463.6	254	262.9	408	400.6	359	551.1	63	2009.2	1345
Ebonyi	Abakaliki	0	0	75.9	0	7.4	91	157.7	147	276.2	238	572.6	223	372	199	391.1	43	1852.9	941
Total		**24.7**	**0**	**336**	**0**	**359**	**671**	**735.6**	**839**	**1805.5**	**1417**	**2317.5**	**1831**	**2469.3**	**1954**	**1989.2**	**441**	**10036.8**	**7153**

Table 3.6: South-South Total Rainfall (mm) January – August

State	Station	January		February		March		April		May		June		July		August		Total	
		2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020
A - Ibom	Eket	0	30	82.6	2	98.6	85	207.9	115	218.5	116	385.8	506	486.2	392	354.3	186	1833.9	1432
A - Ibom	Uyo	37.2	0	102.4	2	124.8	87	90.5	109	321.9	179	315.6	220	336	352	113.5	48	1441.9	997
C/Rivers	Cal	34.2	0	64.1	4	160.4	141	198.8	243	434.3	197	618.4	289	697.9	363	317.6	91	2525.7	1328
C/Rivers	Ikom	8.6	0	152.3	0	91.7	130	127.8	274	195.5	206	363.4	375	376.7	423	428.7	76	1744.7	1484
C/Rivers	Ogoja	0	0	29.7	0	48	19	60.5	159	183.1	280	226.5	216	216.8	393	331.7	155	1096.3	1222
Delta	Asaba	0	0	32	0	62.6	152	26.4	117	354	193	621.3	372	521.9	275	509.5	130	2127.7	1239
Delta	Warri	84.6	0	75.5	2	164.1	137	195.4	212	305.8	170	374.8	320	499.9	452	288.5	80	1988.6	1373
Edo	Benin	96	0	117	46	165.5	264	104	125	206	111	532.3	392	431	156	326.4	63	1978.2	1157
Rivers	P/Harcourt	70	10	70.2	1	112.8	46	48.5	228	352.6	200	473.6	214	553.5	489	383.4	62	2064.6	1250
Total		330.6	40	725.8	57	1028.5	1061	1059.8	1582	2571.7	1652	3911.7	2904	4119.9	3295	3053.6	891	16801.6	11482

Table 3.7: North-East Rainy days (January – August)

State	Station	January		February		March		April		May		June		July		August		Total	
		2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020
Adamawa	Yola	0	0	0	0	0	0	3	2	10	4	10	11	13	13	11	9	47.0	39
Borno	Maiduguri	0	0	0	0	0	0	0	0	5	4	5	6	10	11	16	16	36.0	37
Bauchi	Bauchi	0	0	0	0	0	1	3	2	7	7	11	8	14	21	21	17	56.0	56
Gombe	Gombe	0	0	0	0	0	1	3	2	8	8	17	11	14	16	17	14	59.0	52
Yobe	Nguru	0	0	0	0	0	0	0	0	0	1	4	5	10	11	14	12	28.0	29
Yobe	Potiskum	0	0	0	0	0	0	0	0	6	6	4	8	9	12	19	12	38.0	38
Average		**0**	**0**	**0**	**0**	**0**	**0**	**2**	**1**	**6**	**5**	**9**	**8**	**12**	**14**	**16**	**13**	**264.0**	**251**

Table 3.8: North-West Rainy days (January – August)

State	Station	January		February		March		April		May		June		July		August		Total	
		2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020
Kaduna	Kaduna	0	0	1	0	2	3	2	5	12	10	15	12	15	19	16	21	63.0	70
	Zaria	0	0	1	0	0	2	2	2	14	8	14	10	16	18	20	16	67.0	56
Kano	Kano	0	0	0	0	0	0	0	0	7	2	5	6	16	14	16	14	44.0	36
Katsina	Katsina	0	0	0	0	0	0	0	1	7	1	8	7	11	14	15	13	41.0	36
Kebbi	Yelwa	0	0	0	0	0	0	1	3	9	7	10	8	12	14	15	15	47.0	47
Sokoto	Sokoto	0	0	0	0	0	0	0	1	3	5	10	5	12	12	16	15	41.0	38
Zamfara	Gusau	0	0	0	0	0	0	0	2	8	10	12	10	5	13	13	19	38.0	54
Jigawa	Dutse	0	0	0	0	0	1	0	0	3	2	10	6	15	10	16	16	44.0	35
Average		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	**0**	**9**	**58**	**12**	**114**	**15**	**129**	**385.0**	**372.0**

Table 3.9: North-Central Rainy days (January – August)

State	Station	January		February		March		April		May		June		July		August		2019	2020
		2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	Total	Total
Benue	Makurdi	0	0	1	0	1	2	6	6	11	10	13	10	11	15	21	8	64	51
Kogi	Lokoja	0	0	0	0	1	2	4	4	7	7	9	10	9	13	15	2	45	38
Kwara	Ilorin	0	0	1	0	0	4	6	4	13	12	8	14	13	9	7	1	48	44
Nasarawa	Lafia	0	0	2	0	1	1	4	6	5	9	9	13	14	9	20	14	55	52
Niger	Bida	0	0	1	0	1	1	2	5	9	11	14	13	17	12	20	9	64	51
Niger	Minna	0	0	1	0	0	2	3	8	12	9	16	16	11	15	22	15	65	65
Plateau	Jos	0	0	2	0	2	1	8	7	17	13	16	13	23	21	17	14	85	69
Taraba	Jalingo	0	0	1	0	0	1	5	1	8	0	9	8	13	13	15	12	51	35
FCT	Abuja	0	0	0	0	2	1	3	6	9	14	12	19	17	16	25	15	68	71
Average		**0**	**0**	**1**	**0**	**1**	**2**	**5**	**5**	**10**	**9**	**12**	**13**	**14**	**14**	**18**	**10**	**545**	**476**

Table 3.10: South-West Rainy days (January – August)

State	Station	January		February		March		April		May		June		July		August		Total	
		2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020
Ogun	Abeokuta	3	0	4	0	5	9	6	8	12	10	13	15	15	15	9	2	67.0	59
	Ijebu - Ode	3	0	2	1	12	5	2	9	13	11	18	18	16	16	15	2	81.0	62
Ondo	Akure	0	0	1	0	7	11	8	9	11	8	17	10	16	15	20	2	80.0	55
	Ondo	0	0	3	0	5	8	7	9	12	10	17	15	16	11	20	3	80.0	56
Osun	Oshogbo	4	0	5	1	5	7	6	7	11	12	15	13	15	9	9	3	70.0	52
Oyo	Ibadann	0	0	2	1	8	11	7	10	8	11	14	11	12	8	12	3	63.0	55
	Iseyin	1	2	3	1	6	4	6	8	7	12	11	9	15	11	11	3	60.0	50
	Shak	0	0	1	0	5	3	8	6	8	7	5	14	11	11	13	5	51.0	46
Lagos	Ikeja	4	1	6	1	4	7	7	8	13	7	17	17	13	8	7	1	71.0	50
	Oshodi	4	0	5	1	5	8	6	9	11	8	15	16	15	8	9	1	70.0	51
Ekiti	Ado-Ekiti	1	0	2	0	8	8	6	7	14	13	19	10	17	11	16	2	83.0	51
Average		**2**	**0**	**3**	**1**	**6**	**7**	**6**	**8**	**11**	**10**	**15**	**13**	**15**	**11**	**13**	**2**	**776.0**	**587.0**

Table 3.11: South-East Rainy days (January – August)

State	Station	January		February		March		April		May		June		July		August		Total	
		2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020
Abia	Umuahia	0	0	1	0	10	6	11	5	13	9	20	14	20	20	20	9	95.0	63
Anambra	Awka	0	0	2	0	6	6	8	11	15	14	21	22	18	25	17	9	87.0	87
Enugu	Enugu	0	0	4	0	4	5	6	6	15	14	19	18	18	24	20	7	86.0	74
Imo	Owerri	2	0	4	0	8	4	8	9	14	9	18	15	18	24	24	6	96.0	67
Ebonyi	Abakaliki	0	0	3	0	1	5	4	10	14	13	16	17	17	20	23	9	78.0	74
Average		**0**	**0**	**3**	**0**	**6**	**5**	**7**	**8**	**14**	**12**	**19**	**17**	**18**	**23**	**21**	**8**	**442.0**	**365.0**

Table 3.12: South-South Rainy days (January – August)

State	Station	January		February		March		April		May		June		July		August		Total	
		2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020
A – Ibom	Eket	4	2	1	1	13	7	16	9	18	20	20	23	24	27	25	16	121.0	105
A – Ibom	Uyo	4	0	5	1	9	7	11	10	15	11	17	19	23	22	19	9	103.0	79
C/Rivers	Calabar	5	0	3	1	12	8	13	15	16	16	21	23	26	24	23	13	119.0	100
C/Rivers	Ikom	2	0	6	0	12	10	11	12	13	19	19	17	23	20	27	13	113.0	91
C/Rivers	Ogoja	0	0	3	0	3	1	3	7	11	14	14	15	11	15	18	9	63.0	61
Delta	Asaba	0	0	2	0	3	3	3	5	9	12	13	12	12	23	12	7	54.0	62
Delta	Warri	4	0	4	1	12	10	12	18	16	15	20	17	23	26	24	8	115.0	95
Edo	Benin	5	0	5	2	11	11	8	14	10	13	16	17	25	20	22	7	102.0	84
Rivers	P/Harcourt	5	1	4	0	11	4	12	13	16	14	20	15	26	26	23	7	117.0	80
Average		**3**	**0**	**4**	**1**	**10**	**7**	**10**	**11**	**14**	**15**	**18**	**18**	**21**	**23**	**21**	**10**	**907.0**	**757.0**

Table 3.13: North-East Temperature (°C) January – August

State	Station	January		February		March		April		May		June		July		August		Average	
		2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020
Borno	Maiduguri	32.8	31.1	33.8	32.9	40.1	39.5	41.9	42.9	40.3	40.7	36.7	37.2	33.4	32.8	31.2	30.5	36.3	36.0
Bauchi	Bauchi	31.8	29.9	32.5	31.0	38.2	37.7	39.3	39.2	35.7	36.8	32.6	33.6	30.4	30.5	29.3	29.5	33.7	33.5
Gombe	Gombe	33.1	30.6	33.5	32.5	39.0	38.2	38.9	38.7	35.8	35.1	32.1	31.5	29.9	29.6	28.7	26.9	33.9	32.9
Yobe	Nguru	0	30.1	0	31.8	0	38.6	0	41.6	0	41.3	0	39.1	33.6	34.3	31.9	31.4	32.7	36.0
Yobe	Potiskum	30.7	29.6	32.3	31.7	38.6	38.5	40.9	41.2	39.2	39.3	35.3	35.5	32.4	32.2	29.4	30.4	34.8	34.8
Average		**25.68**	**30.26**	**26.41**	**31.98**	**31.19**	**38.50**	**32.20**	**40.72**	**30.20**	**38.64**	**27.34**	**35.38**	**31.94**	**31.88**	**30.08**	**29.74**	**34.29**	**34.64**

Table 3.14: North-West Temperature (°C) January – August

State	Station	January		February		March		April		May		June		July		August		Average	
		2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020
Kaduna	Kaduna	32.0	30.2	32.5	31.8	34.8	35.9	37.5	35.5	33.5	32.8	30.3	30.5	28.7	28.1	27.8	26.8	32.1	31.5
	Zaria	31.3	28.5	31.6	30.2	36.5	36.1	38.1	38.1	34.3	34.5	31.2	31.8	29.5	29.3	28.5	27.7	32.6	32.0
Kano	Kano	30.6	28.1	31.6	30.5	37.5	37.4	40.4	40.4	38.4	39.1	34.7	36.0	31.5	31.9	29.6	29.5	34.3	34.1
Katsina	Katsina	30.4	28	31.5	30.4	37.3	37.1	39.8	40.1	38.5	38.7	34.8	36.4	32.4	31.3	30.4	29.3	34.4	33.9
Kebbi	Yelwa	35.2	34.3	36.9	37.1	39.5	39.3	40.1	39.1	36.1	37.0	33.8	33.3	32.0	31.4	30.9	30.0	35.6	35.2
Sokoto	Sokoto	33.3	31.6	34.5	33.6	39.8	39.8	42.5	41.8	39.0	39.4	35.5	36.2	32.2	32.0	30.8	27.7	35.9	35.3
Zamfara	Gusau	33.7	30.7	34.5	32.5	39.4	38.4	40.9	40.5	37.6	37.2	34.2	34.0	31.0	31.0	29.5	28.9	35.1	34.2
Jigawa	Dutsinma	30.8	28.9	31.9	31.2	38.5	38.0	40.9	41.2	39.2	39.0	34.5	35.2	31.7	32.0	29.9	30.1	34.7	34.5
Average		**32.16**	**30.04**	**33.11**	**32.16**	**37.90**	**37.75**	**40.01**	**39.59**	**37.09**	**37.21**	**33.62**	**34.18**	**31.13**	**30.88**	**29.68**	**28.75**	**34.34**	**33.82**

Table 3.15: North-Central Temperature (°C) January – August

State	Station	January		February		March		April		May		June		July		August		Average	
		2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020
Benue	Makurdi	35.7	34.6	35.9	37.2	37.5	38.2	34.9	36.5	33.1	33.5	31.2	31.7	30.6	30.9	30	31	33.6	34.2
Kogi	Lokoja	36.0	34.7	36.5	37.5	38.1	37.9	36.5	35.8	34.1	33.8	31.6	32.3	31.2	31.0	30.6	31.4	34.3	34.3
Kwara	Ilorin	35.2	33.6	0.0	36.2	0.0	36.5	0.0	35.3	32.2	33.3	30.2	30.9	29.9	29.1	30.0	28.6	31.5	32.9
Nasarawa	Lafia	36.0	35.6	35.9	37.7	38.0	38.7	35.1	37.6	33.5	34.6	31.2	32.1	30.7	30.7	29.2	30.4	33.7	34.7
Niger	Bida	36.3	34.9	36.8	37.2	38.6	38.7	38.6	37.6	34.3	34.1	31.0	31.2	28.7	30.5	30.3	30.5	34.4	34.3
	Minna	35.7	34.5	36.5	36.2	38.6	38.4	38.1	37.0	33.9	34.3	30.2	30.9	29.6	29.4	29.0	28.9	33.9	33.7
Plateau	Jos	29.7	27.6	29.7	29.3	32.2	32.5	31.3	31.1	28.2	29.3	26.6	27.6	25.2	24.8	23.9	23.5	28.4	28.2
Taraba	Jalingo	35.1	34.4	36.2	36.5	39.5	39.6	37.0	38.7	33.1		31.0	31.6	30.7	30.4	31.7	30.4	34.3	34.5
FCT	Abuja	35.9	35.4	36.3	37.3	37.1	37.5	36.3	36.3	32.8	33.5	30.6	31.3	29.8	29.1	28.3	28.7	33.4	33.6
Average		**35.06**	**33.92**	**31.54**	**36.12**	**33.28**	**37.56**	**31.98**	**36.21**	**32.82**	**33.30**	**30.40**	**31.07**	**29.60**	**29.54**	**29.22**	**29.27**	**33.05**	**33.39**

Table 3.16: South-West Temperature (°C) January – August

State	Station	January		February		March		April		May		June		July		August		Average	
		2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020
Ogun	Abeokuta	36.6	36.7	36.3	38.4	35.9	36.3	35.0	34.5	33.5	34.1	31.5	31.6	30.2	29.9	30.7	30.5	33.7	34.0
	Ijebu-Ode	34.2	35.2	34.1	35.3	33.7	34.5	33.4	33.5	32.0	32.6	30.1	30.9	29.1	29.3	29.4	29.8	32.0	32.6
Ondo	Akure	34.9	34.8	34.5	36.1	33.7	34.5	32.9	32.4	31.6	32.0	29.6	30.1	29.0	28.8	28.9	28.7	31.9	32.2
	Ondo	34.9	35.5	34.2	36.6	34.5	33.9	33.0	32.4	31.4	31.9	29.7	30.3	28.5	29.5	28.7	28.3	31.9	32.3
Osun	Oshogbo	36.0	34.7	36.7	36.4	36.7	34.3	35.9	33.0	34.3	31.8	31.2	29.9	29.5	28.1	30.3	28.2	33.8	32.1
Oyo	Ibadan	35.2	35.5	35.5	36.9	35.0	34.8	34.1	33.7	32.5	32.5	30.4	30.7	29.4	29.1	29.6	29.3	32.7	32.8
	Iseyin	35.5	34.5	36.1	36.3	35.0	35.0	33.2	33.5	31.5	34.8	29.0		28.3		28.0		32.1	34.8
	Shaki	34.5	34	35.6	36.1	35.4	35.2	33.7	33.4	31.0	32.2	28.7	29.4	28.5	27.2	27.3	26.7	31.9	31.8
Lagos	Ikeja	34.0	34.9	33.2	36.1	34.0	34.4	33.8	33.8	32.3	32.9	30.1	30.5	29.5	29.3	29.7	30.1	32.1	32.8
	Oshodi	34.0	35.6	33.3	36.4	34.1	33.8	33.8	33.5	32.3	32.5	30.3	30.5	30.2	29.2	29.9	30.1	32.2	32.7
Ekiti	Ado-Ekiti	34.8	34.5	34.4	36.3	33.7	34.5	32.9	33.1	31.6	32.2	29.6	30.5	29.0	28.5	28.9	29.0	31.9	32.3
Average		**34.96**	**35.08**	**34.90**	**36.45**	**34.69**	**34.65**	**33.78**	**33.35**	**32.18**	**32.68**	**30.01**	**30.44**	**29.21**	**28.89**	**29.23**	**29.07**	**32.37**	**32.76**

Table 3.17: South East Temperature (°C) January – August

State	Station	January		February		March		April		May		June		July		August		Average	
		2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020
Abia	Umuahia	33.6	34.2	34.1	36.5	33.4	35.2	33.2	33.6	32.1	33.1	30.6	31.8	30.2	30.9	30.1	30.9	32.2	33.3
Anambra	Awka	34.8	35.8	35.4	37.0	34.7	35.4	34.0	33.5	33.0	33.3	30.9	31.3	29.9	29.8	29.9	30.4	32.8	33.3
Enugu	Enugu	34.6	34.7	34.9	36.1	34.7	36.2	34.3	33.6	33.0	32.9	31.1	31.3	30.2	30.2	29.9	30.3	32.8	33.2
Imo	Owerri	34.3	35.3	34.3	36.9	33.4	35.2	33.3	32.9	31.8	32.9	30.4	30.8	29.4	29.2	29.6	30.1	32.1	32.9
Ebonyi	Abakaliki	36.4	36.8	36.2	38.8	36.3	37.3	35.5	33.9	33.4	33.8	31.5	31.9	31.0	30.8	30.8	31.1	33.9	34.3
Average		**34.76**	**35.36**	**34.99**	**37.06**	**34.50**	**35.86**	**34.05**	**33.50**	**32.67**	**33.20**	**30.90**	**31.42**	**30.14**	**30.18**	**30.05**	**30.56**	**32.76**	**33.39**

Table 3.18: South South Temperature (°C) January – August

State	Station	January		February		March		April		May		June		July		August		Average	
		2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020
Akwa-Ibom	Eket		30.7	30.4	30.9	30.0	31.0	30.4	30.1	29.5	30.1	28.1	28.5	27.1	27.0	26.9	27.3	28.9	29.5
	Uyo	34.1	34.4	34.1	36.4	33.2	35.8	32.9	33.1	32.4	33.1	29.7	30.8	29.1	29.4	29.5	30.5	31.9	32.9
C/Rivers	Calabar	33.5	33.8	34.1	35.2	33.5	34.8		32.2		32.7		30.4		29.0		29.4	33.7	32.2
	Ikom	34.5	33.7	34.6	36.0	34.6	35.7	35.0	33.8	33.2	33.3	30.6	31.5	29.8	29.7	29.4	30.0	32.7	33.0
	Ogoja	36.0	35.9	35.8	38.0	36.0	38.6	35.4	36.4	34.3	34.6	31.9	33.4	30.9	31.3	31.0	31.2	33.9	34.9
Delta	Asaba	35.5	35.7	35.6	37.2	35.1	36.6	34.9	34.6	34.0	34.0	31.6	32.7	29.9	30.4	30.4	30.7	33.4	34.0
Delta	Warri	33.7	35.6	33.8	36.1	34.0	35.4	34.2	33.8	33.4	33.4	31.1	30.9	29.6	29.0	29.6	30.4	32.4	33.1
Edo	Benin	34.7	35.9	33.8	37.0	33.5	34.4	33.2	33.5	32.4	33.1	30.4	30.9	31.0	29.1	28.9	30.2	32.2	33.0
Rivers	P/Harcourt	33.9	33.2	33.3	35.9	32.9	35.5	32.8	32.5	31.9	32.8	30.2	31.2	29.3	29.6	0.0	30.7	28.0	32.7
Average		**34.49**	**34.32**	**33.94**	**35.86**	**33.66**	**35.31**	**33.59**	**33.33**	**32.63**	**33.01**	**30.45**	**31.14**	**29.58**	**29.39**	**25.70**	**30.04**	**31.91**	**32.80**

4.0 USE OF IMPROVED FARM INPUTS

Improved farm inputs were procured and distributed by 28 States and FCT in 2020 across different geopolitical zones of Nigeria as indicate in Tables 4.1 to 4.24. These consist of North East (5), North Central (5), North West (4), South East (4), South south (4) and South west (6) zones. Major inputs procured and distributed by these States include seeds and seedlings, agrochemicals, fertilizer and farm equipment.

Most of the farm inputs procured and distributed were reported to be affordable to farmers except in some States like Katsina, Anambra and Akwa Ibom that reported that seeds and seedlings procured and distributed were not affordable to farmers. Agrochemicals were also reported not affordable in Kwara, Nasarawa, Katsina, and Akwa Ibom.
The inadequacies of farm inputs in most States could be attributed to the COVID -19 pandemic lockdown. Most of the farm inputs procured were likely procured and distributed before the pandemic lockdown. The inadequacies of farm inputs to farmers affects crop situations on the field.

It is recommended that special considerations should be given to agricultural farm inputs, distribution of farm inputs should be decentralized to the grass root level, allowing minimal movements and supply of these inputs to farmers should be timely.

4.1 Seeds and Seedlings Procured and Distributed by States

Major seeds and seedlings procured by 20 States were maize, rice, sorghum, soybean, cowpea, cassava cuttings, pepper, oil palm, plantain and banana. Most of which were affordable but inadequate.

North East Zone

Adamawa, Bauchi, Taraba and Yobe States were States of the North East that procured seeds and seedlings for their farmers. Seeds and Seedlings procured were maize, rice, sorghum, millet, soybean, cowpea, and sesame. Bauchi, Taraba, and Yobe States distributed all procured seeds and seedlings, except Adamawa that distributed 10 MT out of the 20 MT procured. The source of the seeds and seedlings procured were from private seed companies, Government and Projects.

Table 4.1: Seeds and Seedlings Procured and Distributed by States in the North East Zone

NORTH EAST ZONE							
State	**Seed Input Category**	**Crop**	**Quantity Procured (MT)**	**Quantity Distributed (MT)**	**Adequacy**	**Affordability**	**Source**
Adamawa	Seed	Maize	20	10	No	Yes	Seed company
Bauchi	Seeds	Maize	5	5	No	Yes	Premier Seed
		Rice	5	5	No	Yes	Premier Seed
		Sorghum	1	1	No	Yes	Premier Seed
		Soybean	1	1	No	Yes	TECH.KN
		Sesame	1	1	No	Yes	TECH.KN
	Cutting	Napier Grass	12,000 cuttings	12,000 cuttings	No	Yes	NASRUN
	Seedling	Eucalyptus	15,000	15,000	No	Yes	Nursery
		Neem	15,000	15,000	No	Yes	Nursery
		Mango	10,000	10,000	No	Yes	Nursery
		Guava	10,000	10,000	No	Yes	Nursery
Taraba	Seed	Maize	54	54	No	Yes	NCRI
		Rice	650	650	Yes	Yes	NCRI
		Soybean	110	110	No	Yes	NCRI
		Sesame	100	100	No	Yes	NCRI
Yobe	Seed	Rice	5	5	No	Yes	IFAD
		Groundnut	2.5	2.5	No	Yes	IFAD
		Soybean	2.5	2.5	No	Yes	IFAD
		Millet	1.5	1.5	No	Yes	Govt
		Sorghum	1.5	1.5	No	Yes	Govt/INGO
		Sesame	1.5	1.5	No	Yes	IFAD / FADAMA III
		Cowpea	300	300	No	Yes	GOVT
		Pasture	3.5	3.2	No	Yes	GOVT

North Central Zone

States in the North Central that procured and distributed seeds and seedlings were Kwara, Plateau, Nasarawa and Benue States including the FCT. The Seeds and seedlings procured were maize, rice, soybean, cowpea, and cotton. All seedlings procured were distributed to farmers, except FCT that was yet to distribute the procured maize and rice seeds. Seeds and seedlings procured was reported to be affordable and inadequate in all States. Sources of these seeds and seedlings were NCRI, IFAD, Premier seeds and Government establishments.

Table 4.2: Seeds and Seedlings Procured and Distributed by States in the North Central Zone

NORTH CENTRAL ZONE							
State	**Seed Input Category**	**Crop**	**Quantity Procured (MT)**	**Quantity Distributed (MT)**	**Adequacy**	**Affordability**	**Source**
FCT	Seed	Maize	0.6	Yet to distribute			ARDS
		Rice	1	Yet to distribute			ARDS
Kwara	Certified Seed		2600 kg	2600 kg	No	Yes	Out-grower
			2600 kg	2600 kg	No	Yes	Out-grower
			2500 kg	2500 kg	No	Yes	Out-grower
Plateau	Seed	Maize (O.P)	7900	7900	No	Yes	Notore
		Maize (HYB)	15000	15000	No	Yes	SEEDCO
		Rice	7478	7478	No	Yes	Notore
	Seed	Cotton	7500	7500	No	Yes	Arena cotton
Nasarawa	Seed	Maize	4.00	4.00	Yes	Yes	NRT
Benue	Seed	Maize (hybrid)	3.9	3.9	NO	NO	Premier Seed & strategic Seed
		Rice	25,000	25,000	NO	Yes	Private
		Maize	20,000	20,000	NO	Yes	Private
		Cowpea	7000	7000	NO	Yes	Private
		Soybean	13,000	13,000	NO	Yes	Private
	Cutting	Cassava	15,700 bundle	15,700 bundle	no	Yes	Cassava Seed entrepreneurs

North West Zone

States in the North west zone that reported to have procured and distributed seeds and seedlings are Kaduna, Katsina, Kebbi and Sokoto States. All procurements for seeds of maize, rice, millet, and groundnut were from IAR and ICRISAT.

Katsina procured and distributed 75 MT of cotton seed and 1MT each of millet and maize. Kebbi procured and distributed 40.1 MT of millet and 10MT of maize while Kaduna 20.5MT of maize. Kaduna and Kebbi States both reported that seeds procured and distributed were adequate and affordable to farmers within these States. Details of the seeds and seedling purchased and distributed are indicated in Table 4.3.

Table 4.3: Seeds and Seedlings Procured and Distributed by States in the North West Zone

NORTH WEST ZONE							
State	**Seed Input Category**	**Crop**	**Quantity Procured (MT)**	**Quantity Distributed (MT)**	**Adequacy**	**Affordability**	**Source**
Kaduna	Seed	Maize	20.5	20.4	Yes	Yes	Seed Company
Katsina	Seed	Cotton	75	75	No	No	
		Millet	1	1	No	No	
		Maize	1	1	no	No	
Kebbi	Seed	Maize	10	5	Yes	Yes	IAR
		Millet (SOSAT)	40.1	25	Yes	Yes	ICRISAT
Sokoto	Seed	Groundnut	0.5	0.5	No	Yes	Agro Corp. Co.
		Millet (SOSAT)	1	1	No	Yes	Agro Corp. Co.
		Rice	1	1	NO	Yes	Agro Corp. Co.

South East Zone

As indicated in Table 4.4, the South East States that procured and distributed seeds and seedlings were Abia, Anambra, and Ebonyi. Imo State procured seedlings such as cocoa, cassava, yam, citrus, and oil palm among others. Abia State reported that 120,000 stands of oil palm seedlings procured was affordable and adequate to farmers, hence, 10,000 was distributed. Moreover, 10.9 MT of maize, 92,000 seedlings of fluted pumpkin and 250,000 bundles of cassava bundles were procured and distributed by in Anambra State and were reported as inadequate and unaffordable. Seeds and seedlings procured and distributed by Abia State were reported to be adequate and affordable while in Ebonyi and Imo they were not adequate but affordable. Sources of these seeds and seedlings were Premier seeds, IFAD, Governments and open market.

Table 4.4: Seeds and Seedlings Procured and Distributed by States in the South East Zone

SOUTH EAST ZONE							
State	**Input Type**	**Crop**	**Quantity Procured (MT)**	**Quantity Distributed (MT)**	**Adequacy**	**Affordability**	**Source**
Abia	Seed	Maize	0.6	0.6	Yes	Yes	ADP
	Cuttings	Cassava	600	600	Yes	Yes	ADP/NRCRI
	Seedlings	Oil Palm	120,000	10,000	Yes	Yes	ADP/MANR
		Citrus	600	600	Yes	Yes	ADP/MANR
Anambra	Seed	Maize	10.9	10.9	No	No	Premier Seeds
		Cucumber	0.3	0.3			
		Rice	30	30	No	No	State Govt
		Scent Leave	240	240	No	No	
	Seedling	Fluted Pumpkin	92,000	92,000	No	No	
	Cutting	Cassava	250,000 bundles	250,000 bundles	No	No	
Ebonyi	Seed	Rice	70.2	60.1	No	Yes	IFAD
		Cassava	950,000	950,000	No	Yes	
	Seedling	Oil pam	450,000	450,000	No	Yes	MANR
		Citrus	600,000	600,000	No	Yes	
Imo	Seed	Maize	12.35	12.35	No	Yes	ADP, open market
		Cucumber	8.5	8.5	No	Yes	
		Rice seeds	1.5	1.5	No	Yes	Seed Company
	Seedling	Citrus	9,500	9,500	No	Yes	ADP,
		Yam	1000	1000	Yes	Free	FDN
		Cocoa	20,000	20,000	Yes	Free	FGN
		Oil Palm	30,500	30.5	No	Yes	State
		Cassava	40,000 bundles	40,000 bundles	No	Yes	ADP, open markets

South South Zone

Four States, namely Akwa Ibom, Cross river, Edo, and Bayelsa reported the procurement and distribution of Seeds and Seedlings such as cassava, plantain, banana, cashew, oil palm, maize, rice and soybean as indicated in Table 4.5.

Akwa Ibom, Cross river, Edo, and Bayelsa. Akwa Ibom State reported that 5,000 oil palm seedlings procured and distributed were inadequate and not affordable to farmers. Cross river State procured and distributed 106 MT of rice and 5403 bundle of cassava. Edo State also reported to have procured and distributed maize, rice, soybean, cashew, cassava, plantain and banana were adequate and affordable. Sources of the seed and seedlings were from Governments, IITA, premier seeds, IAR&T and outgrowers.

Table 4.5: Seeds and Seedlings Procured and Distributed by States in the South South Zone

SOUTH SOUTH ZONE							
State	**Input Type**	**Crop**	**Quantity Procured (MT)**	**Quantity Distributed (MT)**	**Adequacy**	**Affordability**	**Source**
Akwa Ibom	Seed	Maize	1.0	1.0	No	Yes	Premier Seed
	Cutting	Cassava TME/41, TMS 95/0057	3200 Bundles	3200 Bundles	No	No	Contact Farmers
	Seedling	Oil Palm	5000	5000	No	No	MoA
	Sucker	Plantain	9000	9000	No	Yes	Contact Farmers
CrossRiver	Seed	Maize	24.3	24.3	yes	yes	IITA & Magpaman
		Rice	106	106	yes	yes	Premier Seeds
	Cutting	Cassava	5403 bundle	5403 bundle	yes	yes	Out growers
Edo	Seed	Maize	41.5	35	Yes	Yes	Agriseed & IAR&T
			1.62	1.62	Yes	Yes	State Govt.
		Rice	118.13	95	Yes	Yes	Agriseed
			1.575	1.575	Yes	Yes	State Govt.
		soybean	27	20	Yes	Yes	Agriseed
			540 kg	540 kg	Yes	Yes	State Govt.
	Seedling	Cashew	1	1	Yes	Yes	State Govt.
	Cutting	Cassava	97,200 (bundles	57,300 (Bundles)	No	Yes	IITA Accredited Out growers
	Sucker	Plantain /Banana	166,667	76,570	Yes	Yes	Out growers
Bayelsa	cuttings	Cassava	300 bundles	300 bundles	No	Yes	FMARD

South West Zone

Ekiti, Lagos, Ondo, Ogun and Osun States procured and distributed rice, maize, cowpea, water melon, onion, pepper, cassava cuttings, plantain, and cashew. Ekiti State procured and distributed 18 metric tons of maize, 30 metric tons of cowpea and 110 metric tons of water melon seeds. They were all reported to be affordable to farmers but inadequate for farmer needs.

Lagos State procured and distributed 100 metric tons of onion, pepper and 10,000 seedling of coconut tree. Osun State reported to have procured and distributed 38,000 seedlings of cocoa tree. Seeds and seedlings procured within the South West States were reported to be inadequate except in Ogun where it was reported to be adequate and sourced from seed companies, RTEP, NIFOR, IITA, CRIN, State government and open market. All the seeds and seedlings were reported to be affordable to farmers in all the South West States.

Table 4.6: Seeds and Seedlings Procured and Distributed by States in the South West Zone

SOUTH WEST ZONE							
State	**Input Type**	**Crop**	**Quantity Procured (MT)**	**Quantity Distributed (MT)**	**Adequacy**	**Affordability**	**Source**
Ekiti	Seed	Maize	18	18	No	Yes	Seed companies
		Rice	3	3	No	Yes	Seed Companies
		Soybean	3	3	No	Yes	
		Cowpea	30	30	No	Yes	
		Tomatoes	75	75	No	Yes	
		Water melon	110	110	No	Yes	
Lagos	Seeds	Onion	100	100	No	Yes	
		Pepper	100	100	No	Yes	
	Cutting	Cassava (TMS 98/0518)	500	500	No	Yes	RTEP Ijebu-Ife and Agbowa
		Coconut	10,000	10,000	No	Yes	LASCODA
		Oil palm	5750	5750	No	Yes	NIFOR
Ondo	Seed	Maize	50	48.5	No	YES	State Govt
		Rice	82,100	82,100	No	YES	State Govt
		Tomatoes	70 sachets	70 sachets	No	Yes	State Govt
		Amaranthus	70 sachets	70sachets	No	Yes	State Govt
		Watermelon	70 sachets	70 sachets	No	Yes	State Govt
	Cuttings	Cassava	139,555 bundle	139,555 bundle	No	YES	State Govt
	Sucker	Plantain	5,000	5,000	No	Yes	State Govt
	Seedling	Cocoa	751,494	751,494	No	Yes	State Govt
		Oil palm	15,000	15,000	No	Yes	State Govt

		Cashew	50,000	50,000	No	Yes	State Govt

Ogun	Seed	Maize	25.48	22.385	No	Yes	IAR&T, IITA
		Rice	1.9	1.9	Yes	Yes	
		Soybean	0.5	0.2	Yes	Yes	
		Cowpea	0.5	0.44	Yes	Yes	
		Vegetables		367 kg	Yes	Yes	
	Cutting	Cassava	158,000 bundles	158,000 bundles	No	Yes	IITA, NCGA
Osun	Seed	Maize	10	10	No	Yes	IAR&T
		Pepper	50 kg		No	Yes	Dizengoff
		Tomato	50 kg		No	Yes	NSS
	Cutting	Cassava	1200 bundles	1200 bundles	No	Yes	
	Seedling	Cocoa	38,000	38,000	No	Yes	CRIN
		Oil palm	2,000	2,000	No	Yes	NIFOR
	Miscellaneous	Net	100	100	No	Yes	Market
		Rope	65	65	No	Yes	Market
		Twine	74	74	No	Yes	Market

4.2 Agrochemicals Procured and Distributed by States

Agrochemicals situation in Nigeria was reported by 23 States who provided agro-chemicals ranging from insecticides and herbicides. Agrochemicals supplied by States were inadequate, though, affordable to farmers. Major sources of these agrochemicals were from private agrochemical companies like Jubaili, WACOT, Springfield, IITA and Government.

North East Zone

As indicated in Table 4.7, Adamawa, Bauchi, Borno, Taraba and Yobe States reported to have procured and distributed different brands of insecticides, herbicides and inoculants. Adamawa State procured 40,000 litres of herbicides and 20,000 litres was distributed and 11,000 litres of insecticide and fungicides was procured and 5,000 was distributed. Agrochemicals procured by Adamawa State was reported as inadequate but affordable. Bauchi State procured a total of 5000litres of insecticides and 5,000 litres of herbicides which was reported to be adequate and affordable.

On the other hand, Borno and Taraba States procured 5920litres and 8800 litres of herbicides respectively. The agrochemicals procured and distributed by Taraba and Yobe were reported to be inadequate but affordable.

Table 4.7 Agrochemicals Procured and Distributed by States in the North East Zone

NORTH EAST ZONE							
State	**Agrochemical Class**	**Name**	**Quantity Procured**	**Quantity Distributed**	**Adequacy**	**Affordability**	**Source**
Adamawa	Herbicide	Herbicide	40,000 L	20,000 L	No	Yes	Company
	Insecticide	Insecticide & Fungicide	11,000 L	5,000 L	No	Yes	Company
Bauchi	Insecticide	Dichlorvous	2,500 L	2,500 L	Yes	Yes	Jubaili
		Cypermethrin	2,500 L	2,500 L	Yes	Yes	Jubaili
	Herbicide	Paraquat	5,000 L	5,000 L	Yes	Yes	WACOT
		Atrazine	5,000 L	5,000 L	Yes	Yes	WACOT
Borno	Herbicide	Herbicide	5,920 L	5800	No	No	
Taraba	Herbicide	Glyphosate	4,400 L	4,400 L	No	Yes	Spring field
		Butachlor	4,400 L	4,400 L	No	Yes	Spring field
	Insecticide	Cypermethrin	4,400 L	4,400 L	No	Yes	SUPERKING
	Inoculant	NODUMAS	220,000 Sachet	220,000 Sachet	No	Yes	IITA
Yobe	Insecticide	Insecticide	1000 L	1000 L	No	Yes	GOVT

North Central Zone

Different brands of agrochemicals were procured and distributed in the States in the North Central zone. were different brands of insecticides and herbicides as indicated in Table 4.8. States that procured and distributed agrochemicals in the North Central are Kwara, Nasarawa, Benue States and FCT. Litres of agrochemicals procured and distributed are between 75 litres and 7,000 litres. Agrochemicals procured by FCT were yet to be distributed during the time of this survey. Source of agrochemicals were from private companies and ARDS.

Table 4.8: Agrochemicals Procured and Distributed by States in the North Central Zone

NORTH CENTRAL ZONE							
State	**Agrochemical Class**	**Name**	**Quantity Procured**	**Quantity Distributed**	**Adequacy**	**Affordability**	**Source**
FCT	Herbicide	Paraquat	3,125 L	Yet distribute	-	-	ARDS
		Propercare	490 L	Yet distribute	-	-	ARDS
		Atrazine 80 PW	400 kg	Yet distribute	-	-	ARDS
	Insecticide	Shooter / Daksh	160 L	Yet distribute	-	-	ARDS
		Perfect Killer	975 L	Yet distribute	-	-	ARDS
Kwara	Various Insecticides		500 L	300 L	No	No	COY
			75	25	No	No	COY
Nasarawa	Insecticide	Termicide	50 L	-	Yes	No	NAGARI
	Herbicide	Glyspring	200 L	-	Yes	No	NAGARI
Benue	Insecticide	FAMEN-B	7,000 L	7,000 L	No	Yes	Private
		VINASH	5,000 L	5000 L	No	Yes	Private
		ATTACK	3,500 L	3,500 L	No	Yes	Private

North West Zone

Only 2 States in the zone namely Katsina and Sokoto States procured and distributed agrochemicals. Sokoto and Katsina States procured and distributed 2000litres and 3500litres of insecticides respectively. Sokoto State also procured and distributed 3000litres of herbicide.

Agrochemicals procured and distributed by the two States were reported as not being adequate, but affordable only in Sokoto State as indicated in Table 4.9.

Table 4.9: Agrochemicals Procured and Distributed by States in the North West Zone

NORTH WEST ZONE							
State	**Agrochemical Class**	**Name**	**Quantity Procured**	**Quantity Distributed**	**Adequacy**	**Affordability**	**Source**
Katsina	Insecticide	Insecticide	2,000 L	2,000 L	no	No	Government
Sokoto	Insecticide	Insecticide	3,500 L	3,000 L	No	Yes	Agro Corp. Coy
	Herbicide	Herbicides	3,000 L	2,800 L	No	Yes	Agro Corp. Co

South East Zone

Ebonyi State was the only State reported to have procured and distributed agrochemicals in the South East zone. Some selective herbicides (200,000 L) and non selective herbicide such as glyphosate (300,000 L) were procured and distributed to farmers within the State. They were reported to be inadequate and affordable. The source was from IFAD.

Table 4.10: Agrochemicals Procured and Distributed by States in the South East Zone

SOUTH EAST ZONE							
State	**Name**	**Input Type**	**Quantity Procured**	**Quantity Distributed**	**Adequacy**	**Affordability**	**Source**
Ebonyi	Herbicide	Selective Herbicide	200,000 litres	200,000 litres	No	Yes	IFAD
		glyphosate	300,000 L	300,000 L	No	Yes	IFAD

South South Zone

Akwa Ibom, Cross river and Edo States were the only States in the South south zone that procured and distributed different brands agrochemicals. Edo State procured and distributed 4 brands of herbicides totalling 84,465 litres. These herbicides were reported to be adequate and affordable to farmers within the States. The source of the agrochemicals in the zone was Jubaili, WACOT and Governments as indicated in Table 4.11

Table 4.11: Agrochemicals Procured and Distributed by States in the South South Zone

SOUTH SOUTH ZONE							
State	**Name**	**Input Type**	**Quantity Procured**	**Quantity Distributed**	**Adequacy**	**Affordability**	**Source**
Akwa Ibom	Insecticide	Insecticides	1	1	No	No	Agro Dealers
	Herbicide	Herbicide	1.2	1.2	No	No	Agro Dealers
Cross River		Goldmax	120 L	120 L	No	Yes	WACOT & MAGPAMAN
	Herbicide	Herbicide	11.94	11.94	No	Yes	
Edo	Insecticide	insecticide	6,930 Litres	4,092 Litres	Yes	Yes	Jubaili
	Herbicide	herbicide	48,645 Litres	22,610 Litres	Yes	Yes	Jubaili
		Glyphosate	21,420 Litres	21,420 Litres	Yes	Yes	State Govt.
		Alfa Force Kit	6,480 Litres	6,480 Litres	Yes	Yes	State Govt.
		Guard Force	1,620 Litres	1,620 Litres	Yes	Yes	State Govt.
		Buta Force	6,300 Litres	6,300 Litres	Yes	Yes	State Govt.

South West Zone

As indicated in Table 4.12, all States in the South West zone procured and distributed agrochemicals. Oyo State procured and distributed the highest quantity of herbicides and pesticides which was 24,600 litres compared with Ekiti State that procured and distributed 7,000 litres and 1000kg of herbicides. Lagos State procured and distributed 4800liters of herbicides These agrochemicals were reported not being adequate but affordable in the States and sourced from open market and Governments.

Table 4.12: Agrochemicals Procured and Distributed by States in the South West Zone

SOUTH WEST ZONE							
State	**Name**	**Input Type**	**Quantity Procured**	**Quantity Distributed**	**Adequacy**	**Affordability**	**Source**
Ekiti	Herbicide	Herbicide	7000 L	7000 L	No	Yes	Agro dealers
			1000 Kg	1000 Kg	No	Yes	
	Insecticide	Pesticides	7500 L	7500 L	No	Yes	Agro dealers
			600 sachets	600 sachets	No	Yes	
Lagos	Herbicide	Force Up	1200 L	1200 L	No	Yes	State Input Agencies
		Weed Off	1200 L	1200 L	No	Yes	State Input Agencies
		Herbicide	2400 L	2400 L	No	Yes	State Govt.
	Insecticide	insecticide	600 L	600 L	No	Yes	
Ogun	Herbicide	Herbicide	135	135	No	Yes	Harvest field
	Insecticide	Insecticides	22 L	17 L	No	Yes	
Ondo	Insecticide	Insecticide	70 L	70 L	No	Yes	“
	Herbicide	Herbicide	2570 L	2570 L	No	Yes	“
	Fungicide	Fungicide	350 L	350 L	No	Yes	“
Osun	Herbicide	Glyphosate	60 L	60 L	No	Yes	Market
		Paraquat	1920 L	1920 L	No	Yes	FGN
		Nicosulfron	1920 L	1920 L	No	Yes	FGN
		Rooter	1920 L	1920 L	No	Yes	FGN
Oyo	Herbicide	Safe Guard	12,300 L	12,300 L	No	Yes	State
		Lagoon	12,300 L	12,300 L	No	Yes	State

4.3 Fertilizer Situation by States

Fertilizer procurement and distribution in many States of Nigeria were reported to be reducing every year. Twenty-four (24) States were observed to report fertilizer situation across Nigeria. Fertilizers procured and distributed were NPK, Urea, SSP and liquid fertilizers in some States. Sources of procurement of most of these fertilizers were Governments, Rice Farmers Association of Nigeria (RIFAN) and open markets.

North East Zone

Adamawa State reported the highest quantity of NPK fertilizer (13,000 MT) procured and distributed to 450,000 farm families. Bauchi State procured 3900 MT of NPK and distributed 3,000 MT. Gombe State procured and distributed 10,000 MT of NPK and Urea fertilizers. Most of the fertilizers procured and distributed in the North East zone was sourced by the State Governments.

Table 4.13: Fertilizer Situation by States in the North East Zone

NORTH EAST ZONE					
State	**Fertilizer Type**	**Quantity Procured ('000 MT)**	**Quantity Distributed ('000 MT)**	**No. of Farm Families Benefited**	**Source**
Adamawa	NPK	13	13	450,000	State State Govt.
	Urea	3	3	450	State State Govt.
	SSP	1.5	1.5	450	State State Govt.
Bauchi	NPK	3.9	3	NA	State State Govt
	Urea	0.9	0.7	NA	State State Govt
	Liquid Fertiliser	23000 L	23,000 L	NA	State Govt
Gombe	NPK	10	10	NA	State Govt
	Urea	10	10	NA	State Govt
Taraba	NPK	0.22	0.22	2200	State Govt
Yobe	NPK	7.5	7.5	NA	State Govt

NA= Not available

North Central Zone

FCT, Kogi, Nasarawa, Niger and Benue States were North Central States that procured and distributed fertilizers to farmers in the zone. Kogi State procured 90,000 MT, 90,000 MT and 80,000 MT of NPK, Urea and SSP respectively while 60,000 MT, 70,000 MT and 80,000 MT were distributed to 2,000, 1800, and 1,500 farm families respectively. Fertilizers procured by the FCT was yet to be distributed to farmers at the time of the survey. This might be associated to lock down during the COVID- 19 pandemic. The Federal Government of Nigeria sourced the fertilizers for FCT while the State Government sourced for their respective States.

Table 4.14: Fertilizer Situation by States in the North Central Zone

NORTH CENTRAL ZONE					
State	**Fertilizer Type**	**Quantity Procured ('000 MT)**	**Quantity Distributed ('000 MT)**	**Numb. Farm Families Benefited**	**Source**
FCT	NPK	0.5	Not Yet distributed		FGN
	Urea	0.40	Not Yet distributed		FGN
	Liquid fertiliser	420 L	Not Yet distributed		FGN
Kogi	NPK	90	60	2000	State Govt
	Urea	90	70	1800	State Govt
	SSP	80	80	1500	State Govt
Nasarawa	NPK		0.93	9300	State Govt
Niger	NPK	10	10		State State Govt.
	Urea	5	5		State State Govt.
Benue	NPK	2.76	2.76	34,500	FGN

North West Zone

The States reported to supply fertilizer in the north west zone were Kebbi, Sokoto and Zamfara. Fertilizers procured and distributed to farm families were NPK and Urea. About 210,000 farm families benefitted from these fertilizers. Sokoto procured and distributed 12,000 MT of NPK fertilizer to 3,000 farm families while Zamfara State reported 150,000 MT of NPK distributed to 200,000 farm families.

Table 4.15: Fertilizer Situation by States in the North West Zone

NORTH WEST ZONE					
State	**Fertilizer Type**	**Quantity Procured ('000 MT)**	**Quantity Distributed ('000 MT)**	**Numb. Farm Families Benefited**	**Source**
Kebbi	NPK	5	5	7500	State State Govt
Sokoto	NPK	12	12	3000	State State Govt
	Urea	3	3	NA	State State Govt
Zamfara	NPK	150	150	200,000	State State Govt.

South East Zone

Anambra and Abia States procured and distributed 8,400 MT and 5,400 MT of NPK and Urea fertilizers respectively. Imo State had a Public Private Partnership arrangement with a private company to supply 4,500 MT of both NPK and Urea that was distributed to 303, 333 farm families. The source of these fertilizers was from State Governments.

Table 4.16: Fertilizer Situation by States in the South East Zone

SOUTH EAST ZONE					
State	**Fertilizer Type**	**Quantity Procured ('000 MT)**	**Quantity Distributed ('000 MT)**	**Number of Farm Families Benefited**	**Source**
Abia	NPK	5.4			State Govt
	Urea	5.4			State Govt
	SSP	5.4			State Govt
Anambra	NPK	8.4	8.4		State Govt.
	Urea	1.8	1.8		State Govt.
Ebonyi	NPK	2.5	2.5	500,000	State Govt
	Urea	1.25	1.25	250,000	State Govt
Imo	NPK	4.500 MT both NPK and urea ETC. C/O Private arrangements		303,333	

South South Zone

In the South South zone, Cross river, Delta and Edo States procured and distributed NPK, Urea, SSP and Organic fertilizers. Cross river State procured the highest quantity of NPK and Urea which are 6,500 MT and 5,000 MT and 4,500 MT was distributed respectively. The source of the fertilizers procured and distributed were from Governments and RIFAN.

Table 4.17: Fertilizer Situation by States in the South South Zone

SOUTH SOUTH ZONE					
State	**Fertilizer Type**	**Quantity Procured ('000 MT)**	**Quantity Distributed ('000 MT)**	**Number of Farm Families Benefited**	**Source**
Cross River	NPK	6.5	5	-	FGN
	Urea	6.5	4.5	-	FGN
	Organic Fertilizer	37	37	-	RIFAN, MAGPAMAN
Delta	NPK	1.5	1.5	-	Other
Edo	NPK	9.13	3.5	-	State Govt
	Urea	3.2 MT	3.5 MT	-	State Govt
	SSP	0.027	0.54	-	State Govt

South West Zone

Ekiti, Lagos, Ogun, Ondo, and Osun States procured and distributed NPK, Urea and Organic fertilizers. Ekiti State procured 102,000 and 306,000 MT of NPK and Urea fertilizers and distributed 100,000 and 300,000 MT respectively for 250 farm families. Osun State procured 5,000 MT of NPK fertilizer from the Federal Government of Nigeria and distributed them to 5,000 farm families. Lagos, Ondo, Ekiti and Ogun States sourced their fertilizer form the State Government.

Table 4.18: Fertilizer Situation by States in the South West Zone

SOUTH WEST ZONE					
State	**Fertilizer Type**	**Quantity Procured ('000 MT)**	**Quantity Distributed ('000 MT)**	**Number of Farm Families Benefited**	**Source**
Ekiti	NPK	102	100	250	State Govt.
	Urea	306	300	250	State Govt.
Lagos	NPK	5.4	5.4	8000	State Govt.
	Urea	1.8	1.8		State Govt.
Ogun	NPK	3.0	2.95	1,975	State Govt.
	NPK	97.8	97.8		FGN
	Urea	30	27.65		State Govt.
Ondo	NPK	1.75	1.75		State Govt.
	Organic	0.01			State Govt.
Osun	NPK	5	5	5,000	FGN

4.4 Farm Equipment Procurred and Distributed by States

Farm equipment was reported to be procured and distributed by 25 States in Nigeria. Among the equipment procured and distributed were Tractor, Draught implements, Agro-processing equipment, power tillers and reapers**.**

North East Zone

Adamawa State procured 105 tractors which were distributed to all LGAs in the State. Other farm equipment purchased by Bauchi State included 200,000 draught implements of which 100,000 were distributed. Bauchi State procured and distributed 2,400 Ox-drawn ridger. Yobe on the other hand purchased and distributed 36 tractors and 5 treashers. The farm equipment procured were reported to be inadequate for farmers in the States.

Table 4.19: Farm Equipment Procured and Distributed by States in the North East Zone

NORTH EAST ZONE						
State	**Farm Equipment Type**	**Equipment Name**	**Quantity Procured**	**Quantity Distributed**	**Adequacy**	**Number of Beneficiaries**
					Yes / No	
Adamawa	Tractor	MF	105	**105**	No	5 Per LGA
	Draught implement	Bulls and MB Plough	200,000	200,000	no	100,000
	Sprayer	Knapsack	3,000	2,000	no	2,000
	Agro processing equipment	Maize sheller	1000	1000	no	50 cooperatives
Bauchi	Draught implement	Ox-Drawn Ridger	2400	2400	No	
	Sprayer	Sprayers	820	814	No	
Yobe	Tractor	MF 375	36	36	No	600
	Processing equipment	Thresher	5	5	No	250

North Central Zone

Nasarawa, Niger and Benue States reported procurements and distribution of some equipment such as sprayers, tractor, bulls, draught implement, threshers, power tillers and reapers. Nasarawa and Niger States procured 1,950 and 11 knapsack sprayers respectively and distributed same. Benue State however, procured and distributed 145 tractors, 20 Animal drawn ridgers, 45 motorized threshers and 30 power tillers as indicated in Table 4.20

Table 4.20: Farm Equipment Procured and Distributed by States in North Central Zone

NORTH CENTRAL ZONE						
State	**Farm Equipment Type**	**Equipment Name**	**Quantity Procured**	**Quantity Distributed**	**Adequacy**	**Number of Beneficiaries**
					Yes / No	
Nasarawa	Sprayer	Knapsack	1950	1950	Yes	-
Niger	Sprayer	Sprayer	11	11	No	150
Benue	Tractor	85 Hp farm tractor	145	145	No	-
	Bulls	Oxen	1pair	-	no	-
	Draught implement	Ridger	20	20	No	-
	Agro-processing Equipment	Thresher 12 HP & 7 HP	45	45	No	-
	Power tiller	12 HP	30	30	No	-
	Reapers	12 HP & 8 HP	35	30	no	-

North West Zone

Farm equipment purchased and distributed by States in the zone include tractors, draught implements, and sprayers. Jigawa State purchased and distributed 50 tractors and 500 sprayers as against 124 and 150 sprayers purchased and distributed by Katsina and Sokoto States respectively. Kebbi on the other hand, purchased and distributed 100 tractors. All the equipment purchased and distributed were reported as not being adequate.

NORTH WEST ZONE						
State	**Farm Equipment Type**	**Equipment Name**	**Quantity Procured**	**Quantity Distributed**	**Adequacy**	**Number of Beneficiaries**
					Yes / No	
Jigawa	Tractor	65 HP	50	50	No	50
	Draught implement	Tiller and horse power	100	100	No	100
	Sprayer	Knapsack	500	500	No	500
Katsina	Sprayer	Sprayer	124	124	No	124
Kebbi	Tractor	John Deere	100	100	No	Cooperative Society
Sokoto	Sprayer	Knapsack	150	150	No	150
		Thresher	100	100	No	100
		Hand tool	200	200	No	200
		Home machine	220	220	No	220

South East Zone

Table 4.22 shows that Abia State procured tractors, bulldozers, grader, and payloader for use within the State. Also, Ebonyi State procured and distributed 10 tractors and 15 combine harvesters for same number of farmers in the State. Imo State procured and distributed some processing equipment like melon peelers, and oil palm processing machines.

Table 4.22: Farm Equipment Procured and Distributed by States in the South East Zone

SOUTH EAST ZONE						
State	**Farm Equipment Type**	**Equipment Name**	**Quantity Procured**	**Quantity Distributed**	**Adequacy**	**Number of Beneficiaries**
					Yes / No	
Abia	Tractor		2		No	
	Bulldozer		1		No	
	Grader		1		No	
	Pay loader		1		No	
Anambra	Tractor	MF	4			
	Sprayer	Sprayer	1			
Ebonyi	Tractor	John Deere	10	10		10
	Harvester	Combine Harvester	15	15		15
	Processing equipment	Thresher (multi-crop)	3	3		3
		Winnower	1	1		1
		multicrop thresher	30	30		
		Rice reaper	2	2		
		Rice thresher	2	2		
		False ballon pot	2	2		
		51 HP thresher	10	10		
Imo	Tractor	434 Power Trac	5			
		Swaraji 978 FE	1			
	Sprayer	Sprayers	1,500			Over 5000 farmers (2019 N- Power prog)
	processing equipment	Oil Palm rocessing, Gari Processing, Egwusi Peelers, De- Watering Machine	Over 5,500 across the State			Over 1.5 million farmers
Enugu	Tractor	John Deere	1			
		New Holland	3			123
		MF	1			
		Mahindra	1			
	Implement	Plough	5			
		Harrow	3			
		Ridger	3			
		Trailer	3			

South South Zone

Akwa Ibom, Cross river, Delta, Edo, and Bayelsa States procured and distributed some farm equipment. Cross river State procured and distributed 1000 pieces of water pump, Akwa ibom State procured 20 tractors of various brands for use within the State. Edo State on the other hand arranged with some private companies on a Public Private Partnership (PPP) to procure and distribute tractors andtheir implements to more than 3,000 beneficiaries as indicated in Table 4.23.

Table 4.23: Farm Equipment Procured and Distributed by States in the South South Zone

SOUTH SOUTH ZONE						
State	**Farm Equipment Type**	**Equipment Name**	**Quantity Procured**	**Quantity Distributed**	**Adequacy**	**Number of Beneficiaries**
					Yes / No	
Akwa Ibom	Tractor	John Deere 5075E	9		no	-
		Mahindra D1506	4		no	-
		MF 4708	2		no	-
		Mulcher MM 350/180	5		no	-
	Sprayer	Sprayers	30	30	no	
Cross river	Pumping machine	Water pump	1000	1000	no	RIFAN
	Tractor	Tractor	7	7	No	
	Sprayer	Sprayers	900	900	no	
Delta	Sprayer	Knapsack	375		no	
Edo	Tractor	JD5065E	2		No	Above 3000 largely PPP sector driven enterprise.
	Implement	Plough	4		no	
		Harrow	2		no	
	Sprayer	Sprayer	1			
	Implement	Planter	2			
	Harvester	Beroni Harvester	2			
Bayelsa	Sprayer	Knapsack	100	100	No	FMARD

South west Zone

Lagos State procured 500 sprayers and 50 smoking kiln but distributed 215 sprayers and 25 smoking kilns to farmers within the State. Ogun State procured 7 tractors of which 221 benefited from the tractor services. Ondo State also procured 20 tractors but distributed 19 tractors including their implements. Osun State on the other hand purchased and distributed 200 sprayers as indicated in Table4.24.

Table 4.24: Farm Equipment Procured and Distributed by States in the South west Zone

SOUTH WEST ZONE						
State	**Farm Equipment Type**	**Equipment Name**	**Quantity Procured**	**Quantity Distributed**	**Adequacy**	**Number of Beneficiaries**
					Yes / No	
Lagos	Mahindra	Tractor	10	-	-	-
	Sprayers	Maximus	500	215	-	215
	Smoking Kiln	-	50	25	-	25
		safety gadget	250	250		400
Ogun	Tractor	Deutz fahr	5			157
		MF	1			32
		URSUS	1			32
	Bulldozer	CAT D7	17	17	Yes	
		CAT D7	1	1	No	
		CAT D6	4	4	Yes	
		Lowbed	2	2	No	
	Implement	Plough	15			150
		Harrow	2			54
		Trailer	1			10
	Processing equipment	Sheller	2			7
Ondo	Tractor	Tractors	20	19	No	19
	Implement	Disc plough	20	19	No	19
		Harrow	7	7	No	7
		Disc ridger	8	8	No	8
		Tipping trailer	6	6	No	6
Osun	Sprayer	Knapsack sprayer	200	200	No	

5.0 CROP PESTS AND DISEASES

Incidence of pests and diseases was reported in more than 30 States across the country. Cases of these pests and diseases severity were reported to be between light and moderate in severity. The prominent pests and diseases of tuber crops reported were mosaic, leaf wilts, bacterial blights, rodents and birds with an estimated yield loss of 30 %. Cereals and legumes were generally infested with army worm, stem borers, pod borers, and birds. Fall army worm was reported in all the States with an average yield loss of about 45 %. Control measures undertaken to contain the pests and diseases infestation generally were use of agro-chemicals, Good Agricultural Practices (GAP), integrated farming, destruction of bird nests, cultural control methods and use of hermetic storage bags in the control of storage insect pest. Major challenges faced with the control of these pests and diseases control, were unavailability and high cost of recommended agro-chemicals and adulteration of the available agro-chemicals.

5.1 Tuber Crops

Table 5.1 shows the incidence of pests and diseases in tuber crops. Tuber crops such as yam, cassava, sweet potato and cocoyam were reported to be infested by various pests and diseases as indicated in Table 5.1. Prominent among these pests and diseases are nematodes, rodents, mosaic, beetle, leaf spot, storage rot, mealy bug and virus. States that reported these infestations are Nasarawa, Imo, Kogi, Taraba, Oyo, Ekiti, Abia, Akwa Ibom, Osun, Ondo, Lagos, Enugu, Adamawa and the FCT. The severity of these pests and diseases were reported to be between light and heavy.

Yam Spittle bugs was reported to be heavy in Taraba State and yam mosaic was reported to be mild in Kogi State with 30 and 50 % expected yield loss respectively.

Cassava leaf spot was reported to be heavy in Osun State while cassava mosaic and Cassava Bacterial Blight (CBB) were reported mild in Adamawa and Kogi States. The reported percentage yield loss experienced in Osun State was 20 %, while in Adamawa and Kogi it was estimated to be 10 % and 50 % respectively. Though, the 50 % yield loss reported in Kogi State was mild and 20 % yield loss in Oyo State were also both mild for CBB. These high losses might be attributed to late identification of the pests and diseases and the late control measures undertaken. Cassava tuber rot was another major disease that was reported to cause 57 % and 20 % yield loss in Lagos and Ondo State respectively. Leaf spot and storage rot are pests and diseases of sweet potato reported in Osun State. The infestation was mild and heavy with 10 and 20 % yield loss respectively.

Cocoyam diseases were reported in Ondo, Imo, Kaduna, Enugu, Ekiti, Akwa Ibom and Osun States. Heavy severity of Fungal disease was reported to occur in Enugu which might result in 55 % yield loss. Cocoyam root diseases and root rot were reported in Kaduna and Osun State with estimated 20 and 10 % yield loss respectively.

Table 5.1: Incidence of Pests and Diseases in Tuber Crops

Crops	Pests/Diseases Hazard	States	Severity	Estimated Yield loss (%)	Management Practices
Yam	Yam rot	FCT	Light	2 %	Farm sanitation
	Nematode				
	Rodent				
	Mosaic	Osun	Light	5	
	Dry rot		Mild	10	
	Beetle				
	Yam Beetle	Akwa Ibom	Light	10	
	Yam Beetle	Abia	Light	10	
	Yam beetle	Ekiti	Light	5	Use of chemicals, Crop rotation
	Nematode		‘’	5	
	Dry rot		‘’	5	
	Yam Beetle	Oyo	Light	10	Avoiding low land areas
	Spittle dugs	Taraba	Heavy	30	Use of Insecticides
	Yam mosaic	Kogi	Mild	50	Use of Improved Varieties
	Yam Beetles	Imo	Moderate	5	Early planting
	Leaf wilts		Moderate	5	Farm sanitation
	Yam Virus	Nasarawa	Light	15	Use of Chemicals
Cassava	Cassava Mosaic	Osun	Mild	10	
	Antracnose		Light	5	
	Leaf spot		Heavy	20	
	Cassava Mosaic	Adamawa	Light	10	Use of resistance varieties
	Cassava Virus				
	Cassava Bacterial Blight (CBB)	Akwa Ibom	Light	5	early harvest
	Cassava Mosaic	Abia	Light	5	Planting resistance varieties, Early planting
	Cassava Mosaic	Ekiti	Light	5	Soil treatment
	Light Blight				Planting improved varieties
	Mealy Bug	Enugu	Light	10	Use of improved varieties
	Cassava Mosaic	Kogi	Mild	50	Use of Improved Varieties
	Cassava Bacteria Blight		Mild	50	Use of improved varieties
	Cassava Mosaic	Oyo	Light	20	Tolerant Varieties
	Cassava Bacterial Blights		Light	10	
	Rodents		Light	20	
	Cassava Mosaic Virus	Taraba	Light	10	Use of Resistant Varieties
	Spider Mites		Light	10	Use of Insecticides
	Cassava Rodents	Ogun	Light	10	Use of Trap

	Tuber rot	Lagos	Moderate	57	Early harvesting/Evacuation
	Cassava Bacterial Blight (CBB)	Imo	Moderate	5	Good farm sanitation
	Monkeys		Moderate	5	Use of improved varieties
	Cassava Mosaic	Nasarawa	Light	13	
	Tuber rot	Ondo	Light	20	-
Sweet Potato	Leaf Spot	Osun	Mild	10	
	Storage rot		Heavy	20	
Coco Yam	Root rot	Osun	Mild	10	
	Leaf distortion		Light	5	
	Blight	Akwa Ibom	Light	8	
	Root rot	Ekiti	Light	5	Fungicides
	Nematode			5	
	Fungal Disease	Enugu	Heavy	55	Cultural practices
	Coco yam root diseases	Kaduna	Moderate	20	Use of Fungicide
	Monkey	Imo	Moderate	5	Scaring
	Leaf Wilt		Moderate	5	Use of chemicals
	Rodent		Moderate	5	Trap
	Birds	Ondo	Light	-	Use of scare crow

5.2 Cereals and Legumes

Table 5.2 shows the Incidence of Pest and Diseases in Cereals and Legumes crops. Maize is one of the major crops planted in Nigeria. The common maize pests and diseases observed during the 2020 Agricultural Performance Survey (APS) were Fall army worm, maize streak, locust, stem borer, spittle beetle, leaf miners, leaf blight, striga, bacterial stalk roy, rodents/pests, weevil, and leaf curl. These pests and diseases were found in almost in all States of Nigeria.

Fall army worm was an insect pests observed to affect maize plant in almost all States across Nigeria. The severity of the pests was reported to be between mild and heavy in all States. Abia, Kogi, Kwara, Ondo, Kaduna, Enugu, Benue, Osun reported yield loss of between 20 % and 50 %. Other States reported below 20 % yield loss. Control measures undertaken were use of chemicals, cultural controls, biological methods, Good Agricultural Practices (GAP), seed dressing and use of PIC storage bags.

Rice is another cereal crop planted in most States of Nigeria. Pests and diseases reported to affect rice this year were mole cricket, rodent, rice blast, fungal and bacterial blight, birds, stem borer, white head, white flies, brown leaf spot, grass cutter, and leaf folder. States that reported one or more of these pests and diseases infestation were Nasarawa, Imo, Borno, Niger, Edo, Ogun, Kogi, Plateau, Bauchi, Taraba, Oyo, Kano, Ebonyi, Ekiti, Abia, Benue, Gombe, Adamawa, Kwara and FCT. Rice blasts affects rice field across many States. The severity reported were

between mild and moderate with yield loss experienced in the following States were Kogi – 30 %, Ekiti, Ebonyi and Edo – 25 %, Bauchi – 15 %, Adamawa, Plateau and Borno – 10 %. Control measures employed against the spread of rice blast were use of resistance varieties, use of chemicals, practice of integrated farm management, bird scaring and nest destruction and Good Agricultural Practices (GAP).

Cowpea was reported to be infested by pests and diseases in Nigeria. Few among the pests and diseases that affected cowpea were pod borer, brown rust, aphids, weevil, grass hopper and striga. States that reported these pests and diseases were Ondo, Katsina, Imo, Borno, Kogi, Yobe, Oyo, Ekiti, Abia, Benue, Adamawa and Osun States. Pod borers was reported in Kogi State with 50 % yield loss, Yobe had 40 %, Oyo – 30 %, Ekiti – 25 %, Osun, Borno and Abia States reported 10 % yield loss respectively. Control measures taken were use of chemicals, hermetic storage and resistant varieties.

Sorghum pests and diseases reported across Nigeria are striga, sorghum smut, army worm, downy mildew, stem borers, short flies, and qualia birds in Katsina, Borno, Zamfara, Bauchi, Yobe, Adamawa and Benue State. Severity were of these pests and diseases were reported generally as light with percentage yield loss of between 10 – 14 %. However, Yobe State reported a moderate case of downy mildew that resulted in a yield loss of 30 %.

Millet was reported to be mainly affected by birds and army in Katsina, Borno, Zamfara, Bauchi, Yobe and Benue resulting in yield loss of 25 %. Case of army worm infestation reported in Katsina was moderate but experienced a yield loss of 22 %. Control measures taken were use of insecticides and scaring away the birds.

Groundnut cultivated in Katsina, Borno, Zamfara, Bauchi, Taraba, Oyo, Ekiti, Abia, and Benue States were reported to be infected with insect pod, groundnut root rot, pod borer, curly leaves, millipedes, aphids, nematodes, termites and rosette. The severity of these pests and diseases were between light and moderate. However, cases of insect pods in Benue was reported to have a yield loss of 50 %, Curly leaves in Oyo State had 30 % yield loss, Millipedes infestation in Taraba had 25 % yield loss and Aphids infestation on groundnut in Bauchi, Zamfara, and Katsina all had 10 % yield loss.

Table 5.2: Incidence of Pest and Diseases in Cereals and Legumes

Crops	Pests/Diseases Hazard	States	Severity	Estimated Yield loss (%)	Management Practices
Maize	Fall Army Worm	FCT	Moderate	3	Biopesticides/ Use of Neem extracts
	Maize Streak Virus				
	Fall Army Worm	Kwara	Heavy	40	Use of Insecticides
	Locust		Moderate	20	
	Army Worm	Osun	Mild	20	Use of Insecticides
	Stem borer			10	
	Weevil			10	
	Army Worm	Adamawa	Moderate	20	Use of Insecticides
	Stem Borer	Gombe	Light	8	Use of Insecticides
	Stem Borer	Benue	Moderate	20	Biological and Chemical Control
	Fall Army Worm				
	Fall Army Worm	Cross Rivers	Moderate	25	Use of Insecticides
	Army Worm	Rivers	Moderate	20	Use of insecticide, Hand picking
	Fall Army Worm	Abia	High	50	Use of Neem extracts, Early planting, Use of chemicals
	Fall Army Worm	Ekiti	Heavy	25	Cultural and Chemical Control
	Stem Borer		Light	10	Use of Insecticides
	Stem Borer	Ebonyi	Moderate	25	GAP
	Army Worm	Enugu	Moderate	30	Cultural Practices
	Fall Army Worm	Oyo	Heavy	50	Use of Insecticides
	Stem Borer	Taraba	Moderate	18	Use of Insecticides
	Spittle Beetles		Light	10	
	Leaf Miners		Light	10	
	Leaf Blight	Bauchi	Heavy	25	Use of Insecticides
	Fall Army Worms	Plateau	Moderate	18	Use of Insecticides
	Fall Army Worms	Zamfara	Moderate	10	Use of Chemicals
	Army Worms	Kogi	Heavy	50	Use of Insecticides
	Striga		Mild	60	Crop Rotation
	Army Worm	Ogun	Heavy	95	Seed Dressing
	Army Worm	Edo	Moderate	10	GAP
	Bacteria Stalk Roy		High	10	Avoidance of Water Logging
	Army Worm	Lagos	Heavy	95	GAP
	Leaf roll back		Heavy	90	GAP
	Fall Army Worm	Kaduna	Moderate	30	Use of biological and Chemical Methods
	Stem Borer	Niger	Light	20	Use of Insecticide
	Stem Borer	Borno	Light	10	Use of Chemicals

	Fall Army Worm		Light	10	,,
	Army Worm	Imo	Heavy	25	Use of Insecticides
	Stem Borer		Heavy	25	Use of Insecticides
	Rodent/Pests		Heavy	25	Traps
	Fall Army Worm	Katsina	Light	8	Use of Chemicals
	Stem Borers		Light	11	
	Stem Borer	Nasarawa	Light	20	Use of chemicals
	Weevil		Light	15	Use of PIC bag for Storage
	Leaf curl		Light	15	Use of Insecticides
	Fall Army Worm	Ondo	Heavy	35	Use of chemical and cultural controls
Rice	Mole Cricket	FCT	Light	2	Use of Insecticides
	Rodent				
	Iron toxicity				
	Rodents	Kwara	Heavy	90	Use of Rodenticides
	Rice Blast	Adamawa	Light	10	Use of fungicides, Seed dressing
	Fungal and Bacterial Blight	Gombe	Light	8	Use of Fungicides
	Birds	Benue	Light	5	Use of Scare Crow
	Stem Borers	Abia	Light	5	Early planting, Destroy infested plants
	Birds	Ekiti	Heavy	25	Use of net/bird scaring
	Rice Blast		Moderate	10	Resistant varieties and Fungicides
	Rice Blast	Ebonyi	Moderate	25	GAP
	Rice Blast	Kano	Light	5	Use of Fungicides
	Birds	Oyo	Moderate	20	Baiting and Scaring
	Stem Borer	Taraba	Moderate	18	Use of Insecticides
	Rice Blast	Bauchi	Moderate	15	Use of Chemicals
	Stem Borer		Light	10	
	Rice Blast	Plateau	Light	10	Use of Chemicals
	White Head				
	Stem Borer	Kogi	Mild	40	Use of Insecticides
	Rice Blast			30	Crop rotation
	Birds	Ogun	Moderate	25	Bird Scaring and Nest destruction
	Rice Blast	Edo	Moderate	25	Use of fungicide Crop Production Products
	Cell maize	Niger	Light	15	Use of Insecticide
	Rice Blast	Borno	Light	10	Use of chemicals
	White Flies				Use of chemicals
	Quila Birds				Bird scaring

	Brown Leaf Spot				Use offungicide
	Grass cutter	Imo	Moderate	13	Practice of integrated farm management
	Gulmethe, pests, birds		Moderate	13	
	Army worm	Nasarawa	Light	10	Use of resistant varieties and chemicals
	Leaf folder		Light	10	
Cowpea	Pod Borer	Osun	Mild	10	
	Brown Rust				
	Anthrancnose				
	Field and Storage Pests	Adamawa	Heavy	25	Use of Resistance Varieties, Use of agro-chemical, Use of PICS storage bag storage/ hermetic storage
	Aphids	Benue	Light	10	Use of insecticide
	Weevil	Abia	Moderate	10	
	Grasshopper	Ekiti	Light	10	Use of Insecticides
	Aphids		Moderate	15	,,
	Pod Borer		Heavy	25	Use of resistant varieties and Insecticides
	Pod Borer	Oyo	Moderate	30	Use of Insecticides
	Bird Attack		Moderate	30	Scaring and Baiting
	Weevils	Yobe	Moderate	40	Use of Insecticides
	Leaf eaters	Kogi	Heavy	50	Use of Insecticides
	Pod Borers			50	
	Pod Borers	Borno	Moderate	10	Use of chemicals
	Striger				Crop rotation
	Weevil storage		Light	8	Use of Hermetic storage
	Pester Thrips		Light	8	
	Maruca		Light	8	
	Grass hoppers and rodents	Imo	Moderate	10	Use of traps and integrated farm mgt.
	Aphids	Katsina	Light	7	Use of insecticides
	Pod Borer	Ondo	Light	5	Use of insecticide and cultural control

Sorghum	Striga	Benue	Light	10	Use of Insecticides
	Stem Borer				
	Sorghum Smut	Adamawa	Light	10	Seed Dressing
	Downy Mildew	Yobe	Moderate	30	Use of Chemicals
	Stem Borer	Bauchi	Light	10	Use of insecticide
	Short flies		Light	10	
	Stem Borer	Zamfara	Light	10	Use of Insecticides
	Quelea Birds	Borno	Moderate	15	Scaring birds
	Army worm	Katsina	Light	14	Use of insecticides
Millet	Birds	Benue	Light	10	Use of Scare Crow
	Stem Borer	Yobe	Moderate	20	Use of Insecticides
	Downy Mildew and Smut	Bauchi	Moderate	10	Crop Rotation and seed dressing
	Birds Damage		Heavy	25	Destruction of nests and nesting sites
	Blister Beetle	Zamfara	Light	10	Use of Chemicals
	Quela Birds		Light	10	Scaring away birds
	Stem Borer	Borno	Moderate	8	Use of Chemicals
	Head smut				Use of chemicals
	Quila Birds				Bird scaring
	Army worm	Katsina	Mild	22	Use of chemicals
Groundnut	Insect Pod	Benue	Heavy	50	Use of Chemical
	Groundnut root rot	Abia	Mild	10	
	Pod Borer	Ekiti	Light	7	Soil Treatment
	Curly Leaves	Oyo	Moderate	30	Crop Rotation, Use of Improved varieties
	Millipedes	Taraba	Heavy	25	Soil Treatment
	Aphids	Bauchi	Light	10	GAP
	Aphids	Zamfara	Light	10	Use of Chemicals
	Nematode	Borno	Light	8	Use of Chemicals
	Termite		Light	8	
	Rosette		Light	8	
	Aphids	Katsina	Light	12	Use of insecticide
Soybean	White Fly	Ekiti	Moderate	15	Use of Insecticides
	Pod Borer		Moderate	15	Use of Resistance Varieties and Insecticides
	Bird Attack	Oyo	Moderate	10	Baiting and Scaring
	Leaf Mosaic	Zamfara	Light	5	Roguing/ removal of infected plant
Beniseeds	Leaf Coil Disease	Gombe	Light	5	Use of Insecticides
	Flower Beetles	Taraba	Heavy	30	Use of Insecticides
	Leaf fall	Zamfara	Light	5	

5.3 Fruits and Vegetables

Tomato was the only fruits and vegetables reported to be infested by pests and diseases in some States of Nigeria. Tomato wilts, Nematode, Flies, Bacterial wilt, Fusarium wilt, Fruit worm, Blight, Leaf hoppers, and Wilting were pests and diseases reported to affect tomato fruits in Ondo, Borno, Edo, Oyo, Zamfara, Kogi, Osun and Ekiti States. Fusarium wilt was reported in Kogi State with an estimated 40 % loss. Tomato wilts and Nematodes were reported in Edo and Osun States with 80 % and 20 % yield loss respectively. Details are indicated in Table 5.3.

It was generally observed that cases of pests and diseases in Nigeria were between light and moderate cases and yield loss were reported to be between 10 – 60 %. Control measures used ranges between use of chemicals, biological controls, cultural controls, traps, Good Agricultural Practices (GAP), PIC storage bags, and resistant varieties among others.

Table 5.3: Incidence of Pest and Diseases in Fruits and Vegetables

Crops	Pests/Diseases Hazard	States	Severity	Estimated Yield loss (%)	Management Practices
Tomatoes	Tomato Wilt	Ekiti	Moderate	15	Use of Resistance varieties
	Nematode				Soil Treatment
	Fly				Use of Insecticides and Early Planting
	Bacterial Wilt	Osun	Heavy	20	
	Fusarium Wilt		Mild	10	
	Nematodes		Heavy	20	
	Fusarium Wilt	Kogi	Mild	40	Seed Dressing
	Fruit Worm	Zamfara	Light	12	Use of chemicals
	Blight		Light	11	Rogueing
	Tomato Wilt	Oyo	Moderate	40	Crop rotation, Use of Improved seeds
	Tomato Wilt	Edo	Heavy	80	None
	Leaf hoppers	Borno	Light	8	Use of chemicals
	Nematode			8	
	Fruit Worm			8	
	Wilting	Ondo	Light	15	-

6.0 AGRICULTURAL MECHANIZATION

Agricultural mechanization is the deployment and use of labour-saving devices and machines in place of human labour for agricultural production, processing, handling, preservation and storage. Agricultural mechanization reduces drudgery, improves timeliness and efficiency of various agricultural operations and generally increases productivity per agricultural worker.

Small-scale peasant farmers, who are a dominant majority of Nigerian farming population, still depend on manual labour for most of their farming operations and activities. However, with labour demand peaks at critical crop production periods, high labour cost and relative scarcity makes the introduction of mechanization to Nigerian agriculture more inevitable than ever before.

6.1 Tractor Availability and Functionality

Tractor is the most common agricultural mechanization machine used in Nigeria. Data on available tractors and their functionality were collected from all ADPs, ministries and the FCT nationwide. The total number of functional government tractors as captured for the country in 2019 and 2020 were 1,534 and 642 representing a decrease of 58.39%. These figures depict a gross under reporting of the tractor population in the country. Many States did not provide the necessary data. For the private sector, available functional tractors were 2,053 and 2,205 in 2019 and 2020 respectively, an increase of 7.40%. The number of non-functional tractors reduced by 25.06% from 403 in 2019 to 302 in 2020 suggesting an improved management of tractors in 2020.

Table 6.1 gives the number of tractors available in the North East agro-ecological zone. Adamawa State reported the highest number in the zone (105) in 2020 followed by Bauchi (15) and Yobe (15), while Borno and Gombe had 12 and 10 respectively. There was a decrease of 21.89% in the number of functional government tractors in the zone.

The number of private tractors in the zone were not provided by the States ADPs and Ministries of Agriculture in the zone except Bauchi that posted 241 functional and 44 non-functional private tractors in 2020.

Table 6.1: Government and Private Tractors Available in North East Zone

NORTH EAST ZONE												
State	Government Tractors						Private Tractors					
	Functional			Non-Functional			Functional			Non-Functional		
	2019	2020	% change	2019	2020	% change	2019	2020	% change	2019	2020	% change
Adamawa	NA	105	NIL	NA	NA	NIL	NA	NA	-	NA	NA	-
Bauchi	46	15	-11.76	20	NA	NIL	NA	241	-	NA	44	-
Borno	*119	12	-89.9	33	30	-9.1	NA	NA	-	NA	NA	-
Gombe	*20	10	-2.50	*27	37	37.0	NA	NA	-	NA	NA	-
Yobe	16	15	-6.25	26	21	-19.2	NA	NA	-	NA	NA	-
Total	**201**	**157**	**-21.89**	**106**	**88**	**-**	**NA**	**241**	**-**	**NA**	**44**	

* *Additional information obtained after 2019 report*

Table 6.2 gives the number of functional and non-functional tractors for both government and the private sector in the North West zone. The zone reportd 100 functional government tractors for 2020, a reduction of 74.35% from the 2019 figure. The private sector however reported 1,061 tractors in 2020, an increase of 59% over 2019.

Within the zone, Kebbi State reported the highest number of government tractors (100) in 2020. It was observed during the survey, that 100 government tractors purchased more than 3 years ago were still lying idle, undistributed and unused. Kaduna State has the highest number of functional private tractors (1,061) in the zone, an increase of 59.31% over 2019.

Table 6.2: Government and Private Tractors Available in North West Zone

NORTH WEST ZONE												
	Government Tractors						Private Tractors					
	Functional			Non-Functional			Functional			Non-Functional		
State	2019	2020	% change	2019	2020	% change	2019	2020	% change	2019	2020	% change
Jigawa	*4	4	0	*13	13	0	NA	NA	NIL	NA	NA	NIL
Kaduna	NIL	NIL	NIL	1	2	100	600	1000	66.66	NA	NA	NIL
Kano	*7	NA	NIL	*7	NA	0	NA	20	NIL	NA	17	NIL
Katsina	*265	NA	NIL	NA	NA	0	36	NA	NIL	12	NA	NIL
Kebbi	107	100	-6.54	7	NA	0	30	41	36.66	10	NA	NIL
Sokoto	NA	NA	NIL	NA	NA	0	NA	NA	NIL	NA	NA	NIL
Zamfara	7	7	0	*43	43	0	NA	NA	NIL	NA	NA	NIL
Total	**390**	**100**	**-74.35**	**58**	**58**	**-**	**666**	**1061**	**59.31**	**22**	**17**	**-**

** Additional information obtained after 2019 report*

Table 6.3 shows the State of government and private tractors in the North Central zone. The number of functional government tractors reported in 2020 was 293 as against 803 in 2019 indicating a reduction of 63.51%. The States worst hit in reduction of government functional

tractors were Plateau and Kogi with 60.55% and 60% respectively. In the same vein, the number of functional tractors in the private sector reduced over the period by 35.58% across the region. Plateau State recorded the highest reduction (92%). Kwara State reported the highest number of private tractors (727) in the region for 2020.

Table 6.3: Government and Private Tractors Available in North Central Zone

NORTH CENTRAL ZONE												
	Government Tractors						Private Tractors					
	Functional			Non-Functional			Functional			Non-Functional		
State	2019	2020	% change	2019	2020	% change	2019	2020	% change	2019	2020	% change
Benue	NA	NA		15	13	-13.3	NA	23	NIL	NA	NA	
FCT	***15**	15	0	*10	10	0	NA	NA	NIL	NA	NA	
Kogi	25	10	-60	*4	NA	NIL	NA	30	NIL	NA	NA	
Kwara	*5	4	-20	NA	1	NIL	NA	727	NIL	NA	NA	
Nasarawa	**4**	4	0	*4	4	0	5	NA	NIL	NA	NA	
Niger	5	4	-20	NA	NA	NIL	1250	NA	NIL	NA	NA	
Plateau	649	256	-60.55	38	39	56	50	96	92	NA	NA	
Taraba	100	NA	NIL	51	NA		55	NA	NIL	55	NA	
Total	**803**	**293**	**-63.51**	**122**	**67**		**1,360**	**876**	**-35.58**	**55**	**NA**	

* *Additional information obtained after 2019 report*

Table 6.4 gives the number of available functional and non-functional tractors for government and private sector in South West zone. The number of tractors reported available in the zone was significantly lower than expected for both 2019 and 2020. Data received showed a reduction in number of available government tractors for all the States in the zone for 2020 when compared with 2019. Some of the percentage reduction were Oyo (91.66%), Ondo (66.66%) and Ogun (56.6%). In the private sector, only Osun State posted data of 27 functional tractors.

Table: 6.4 Government and Private Tractors Available in South West Zone

SOUTH WEST ZONE												
State	Government Tractors						Private Tractors					
	Functional			Non-Functional			Functional			Non-Functional		
	2019	2020	% change	2019	2020	% change	2019	2020	% change	2019	2020	% change
Ekiti	*1	1	0	10	22	120	NA	NA	-	NA	NA	NIL
Lagos	NA	4	NIL	7	6	-14.2	NA	NA	NIL	NA	NA	NIL
Ogun	16	7	-56.6	3	25	733	NA	NA	NIL	NA	NA	NIL
Ondo	3	1	-66.66	22	NIL	NIL	NA	NA	NIL	NA	NA	NIL
Osun	*9	8	-11.1	*9	10	11.1	NA	27	NIL	NA	6	NIL
Oyo	12	1	-91.66	3	NIL	NIL	NA	NA	NIL	NA	NA	NIL
Total	**41**	**22**		**54**	**63**		**NA**	**27**		**NA**	**6**	

** Additional information obtained after 2019 report.*

The number of available government and private tractors in the South East zone are given in Table 6.5. Ebonyi State reported 30 functional government tractors in 2020, 40% less than the 2019 figure. The number of government functional tractors in Imo and Enugu State increased in 2020 by 600% and 40% respectively compared to 2019. The information on the availability of private functional tractors in the zone was only provided by Ebonyi (14) and Enugu (13) States. Generally, the number of government functional tractors reduced by 37.87% between 2019 and 2020.

Table: 6.5 Government and Private Tractors Available in South East Zone

SOUTH EAST ZONE												
	Government Tractors						Private Tractors					
	Functional			Non Functional			Functional			Non Functional		
State	2019	2020	% change	2019	2020	% change	2019	2020	% change	2019	2020	% change
Abia	3	NA	NIL	1	2	100	NA	NA	NIL	NA	NA	NIL
Anambra	NA	NA	NIL	*4	4	0	NA	NA	NIL	NA	NA	NIL
Ebonyi	60	30	-40	35	10	-16.6	14		NIL	NA	NA	NIL
Enugu	2	4	100	3	NA	NIL	13	NA	NIL	*29	NA	NIL
Imo	1	7	600	1	NA	NIL	NA	NA	NIL	NA	NA	NIL
Total	**66**	**41**	**-37.87**	**44**	**16**		**27**	**NA**		**29**	**NA**	

* *Additional information obtained after 2019 report.*

The South-South agro ecological zone recorded low number of government functional tractor in 2020 (29) compared with 2019 (33), the reduction in number of government functional tractors was 12.12%. Generally, the zone recorded low functional available tractors in both government and private sector as shown in Table 6.6. It's high time for the government of various State within the zone to assist farmers by making provision of farm equipment to reduce the drudgery in farming. The data available from ADPs and State Ministries basically reflects government owned tractors. It was generally observed across the States that, the use of government tractor for agricultural mechanization was not encouraging, especially, the number of non-functional tractors that has been increasing yearly.

Table: 6.6 Government and Private Tractors Available in South-South Zone

SOUTH -SOUTH ZONE												
	Government Tractors						Private Tractors					
	Functional			Non Functional			Functional			Non Functional		
State	2019	2020	% change	2019	2020	% change	2019	2020	% change	2019	2020	% change
Akwa-Ibom	10	10	0	5	4	-20	NA	NA	NIL	NA	NA	NIL
Bayelsa	7	8	14.28	*6	6	0	NA	NA	NIL	NA	NA	NIL
Cross River	12	7	-41.66	NA	NA	NIL	NA	NA	NIL	NA	NA	NIL
Delta	2	2	0	8	NA	NIL	NA	NA	NIL	NA	NA	NIL
Edo	*1	1	0	NA	NA	NIL	NA	NA	NIL	NA	NA	NIL
Rivers	1	1	0	NA	NA	NIL	NA	NA	NIL	NA	NA	NIL
Total	**33**	**29**	**-12.12**	**19**	**10**	**-**	**NA**	**NA**	**-**	**NA**	**NA**	**-**
Nat. Total	**1,543**	**642**	**-58.39**	**403**	**302**	**-**	**2,053**	**2,205**	**7.40**	**106**	**23**	**-**

* *Additional information obtained after 2019 report.*

The South-South agro ecological zone recorded relatively low numbers of government functional tractors in 2020(29) compared with 2019(33). Governments of the various States in the zone are encouraged to assist farmers through provision of farm equipment to reduce the drudgery in farming.

The data available from ADPs and State Ministries basically reflect government-owned tractors. It was generally observed across the States that the number of non-functional tractors has been increasing yearly. Data were not available on private tractors in most of the States. However, a private organization, Tractor Owners and Hiring Facilities Association of Nigeria (TOHFAN), reported having five hundred and fifty-six (556) tractors in their fleet with a Tractor calendar that covers 31 States in Nigeria for both wet and dry seasons farming.

Plate 6.1: Newly acquired Tractors by Delta State Governmentt.

6.2 Animal Traction

Animal traction is the use of some select animals (Bull, donkey and camel) for provision of draft power for agricultural activities like ploughing, harrowing, ridging, transportation, etc. Animal traction has played and still plays an important role in meeting the power requirement for agricultural purposes in Nigeria. The technology is mostly applied in the Northern part of Nigeria where the soils are lighter and incidence of Tse-Tse fly is negligible. The problems of incessant cattle rustling and insecurity had also affected the animal traction use in many parts of the country like Borno, Zamfara, Katsina, Kaduna and Yobe.

Table 6.7 and Figure 6 give the available data for 2019 and 2020 on the number of working bulls in some State. Adamawa has the highest number of bulls (200,000) in 2020 while Kebbi had 250,000 in 2019, although no data was provided for 2020. Gombe State reported a giant leap in the number of work bulls from 695 in 2019 to 6,150 in 2020.

Table 6.7 Animal Traction situation in some States

S/no.	State	2019	2020	% change
1	Adamawa	NA	200,000	NIL
2	Gombe	695	6,150	784.89
3	Yobe	204	170	-16.66
4	Bauchi	195,000	140,000	-28.20
5	Plateau	602	700	16.27
6	Taraba	470	680	44.68
7	Sokoto	15,000	NA	NIL
8	Kano	3,000	NA	NIL
9	Katsina	2,500	1,850	-26
10	Kebbi	250,000	NA	NIL
11	Zamfara	20,000	NA	NIL

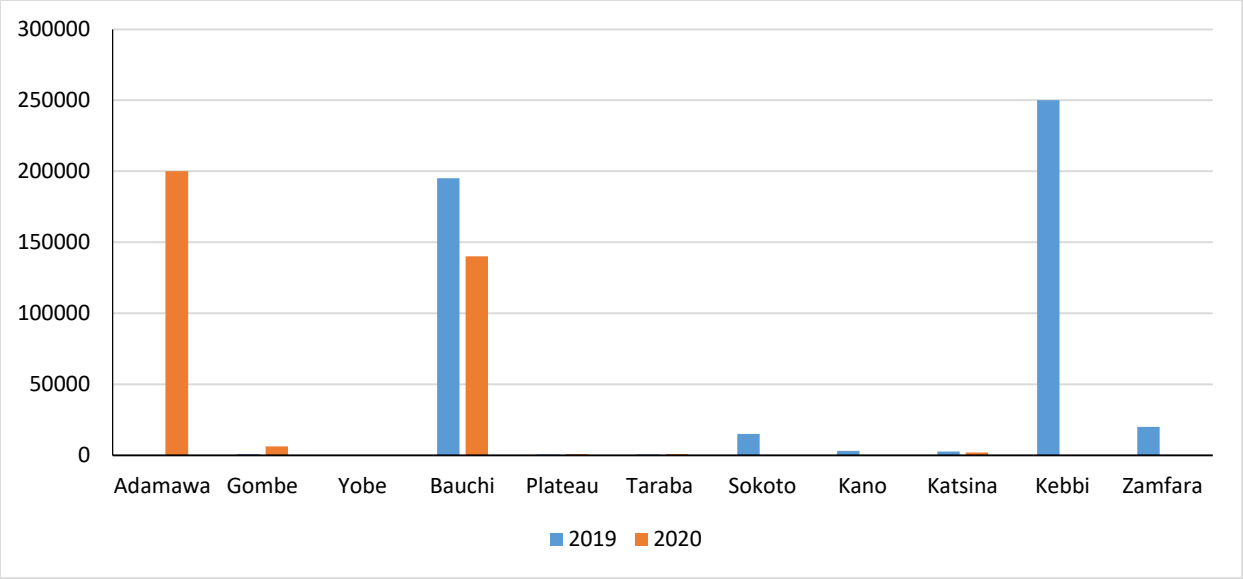


Figure 6.1: State of Animal Traction in Nigeria, 2019 to 2020.

6.3 Cost of Tillage Operation

Tillage is the mechanical manipulation of soil with tools and implements for obtaining conditions ideal for seed germination, seedling establishment and growth of crops. Tillage operations include land clearing, ploughing, harrowing and ridging. The cost of tillage operations in the country as reported by the States in 2020 is presented in Tables 6.8 to 6.13.

Plate 6. 2: Ploughs procured for tillage operation.

The cost of tillage operations in the North East zone is presented in Table 6.8. It was observed that in 2020 the cost of land clearing, ploughing, harrowing and ridging in Adamawa State increased generally as against 2019 by percentage changes of 36.3, 25, 26 and 50% respectively.

Bauchi State recorded increase in the cost of ploughing, harrowing and ridging with percentage change of 13.3, 50, and 60% respectively but the cost of land clearing remains the same. There was a general increase in tillage operations in Borno, Gombe, and Yobe with Gombe having the highest percentage change of 20, 100, 87.5 and 25% for land clearing, ploughing, harrowing and ridging respectively.

In the North West Zone, there was increase in the cost of land clearing in Kaduna, Kebbi, Sokoto and Zamfara. No records were posted for the cost of land clearing in Kano and Jigawa States. However, there was increase in cost of ploughing in 2020 as compare to 2019 generally in the zone except in Jigawa, with Kano having the highest percentage change while Kebbi State had the least of 5% change. Cost of harrowing operation increased across the zone except in Katsina and Zamfara. The percentage changes for Jigawa, Kaduna, Kano, Katsina, Kebbi, and Sokoto were 33.3, 4.17, 25, 6.25 and 50% respectively. Cost of ridging also increased in Kaduna, Kano, Katsina and Kebbi with percentage changes of 25, 87.5, 25 and 6.25% respectively, but the cost was the same in Jigawa, Sokoto and Zamfara.

There was no data for the cost of land clearing in Kwara; while Benue, Kogi, and Plateau recorded decrease in the cost of land clearing with percentage changes of -27.27, - 4, -10% respectively. Highest cost of ploughing, harrowing and ridging were obtained in Niger State with percentage change of 66.67, 200 and 150% at NGN30,000/ha, NGN30,000/ha and NGN25,000/ha respectively.

Cost of tillage operation for South West zone is presented in table 6.11, the cost of land clearing decreased in Ondo State with percentage change of -16.67%. There was no data recorded in Ekiti State, however cost of land clearing increased in Lagos, Osun and Oyo States with percentage changes of 50, 28 and 20% respectively. Cost of ploughing in 2019 and 2020 was the same in Ondo and Oyo but there was an increase in Ekiti, Lagos and Ogun with percentage changes of 1.35, 60 and 25% respectively while Osun recorded a decrease with percentage change of -37.5%. Similarly, the cost of ridging in Ondo and Osun also decreased with percentage change of --6.67 and -37.5 while in Oyo the cost was the same in 2019 and 2020 but Ekiti, Lagos and Ogun recorded an increase with percentage change of 4, 25, and 20% respectively.

In South-South Zone the highest cost of land clearing was recorded in Rivers State with percentage change of 50% followed by Akwa-Ibom with percentage change of 13.3%. Cost of ploughing in 2019 and 2020 was observed to be the same in Edo and Ekiti but there was an increase in Akwa-Ibom with percentage change of 8%. The cost of harrowing increased in Akwa-Ibom, Edo and Rivers with percentage changes of 8, 50, and 12.5% respectively. There was no change in cost of Ridging in Edo for both 2019 and 2020 but Akwa-Ibom recorded an increase of 8% while Rivers State recorded a decrease of 12.5%.

In the South East, the cost of land clearing in 2019 and 2020 was the same in Ebonyi and Enugu but Abia and Imo recorded a decrease with percentage change of -16.7 and -37.5% respectively. However, there was an increase in cost of ploughing in Ebonyi with percentage change of 25% but there was no difference in ploughing cost in Abia and Enugu for both 2019 and 2020 while Imo recorded a decrease with a percentage change of -11.8%. The cost of harrowing was observed to increase in Ebonyi and Enugu with a percentage change of 12.5 and 16.7% respectively. The highest cost of ridging was obtained in Abia with percentage change of 38.8%.

Table 6.8: Cost of Tillage Operations in North East Zone

State	North East Zone											
	Land Clearing (₦/Ha)			Ploughing ((₦/Ha)			Harrowing ((₦/Ha)			Ridging ((₦/Ha)		
	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change
Adamawa	11,000	15,000	36.3	20,000	25,000	25	20,000	25,000	25	10,000	15,000	50
Bauchi	5,000	5,000	0	15,000	17,000	13.3	10,000	16,000	60	10,000	15,000	50
Borno	10000	10000	0	15,000	20,000	33.3	7000	20,000	42.85	7,000	12,600	80
Gombe	5000	6000	20	10,000	20,000	100	8,000	15,000	87.5	12,000	15,000	25
Taraba	10,000	10,000	0	20,000	20,000	0	15,000	15,000	0	15,000	15,000	0
Yobe	15,000	16,000	6.66	25,000	25,000	0	15,000	20,000	33.3	7,000	7,000	0
Z. Mean	**9,333.3**	**10,333.3**	**20.98**	**17,500**	**17,833.3**	**42.9**	**12,500**	**18,500**	**49.73**	**10,166.6**	**13,166.7**	**51.25**

Table 6.9: Cost of Tillage Operations in North West Zone

State	Land Clearing (₦/Ha)			Ploughing ((₦/Ha)			Harrowing ((₦/Ha)			Ridging ((₦/Ha)		
	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change
Jigawa	N/A	N/A	N/A	25,000	25,000	0	15,000	20,000	33.3	20,000	20,000	0
Kaduna	7,000	8,500	21.43	15,000	20,000	33.3	12,000	12,500	4.17	10,000	12,500	25
Kano	N/A	N/A	N/A	10000	25000	150	8,000	10,000	25	8000	15000	87.5
Katsina	7000	7000	0	20,000	25,000	25	18,000	18,000	0	20,000	25,000	25
Kebbi	5,000	10,000	100	20,000	21,000	5	16,000	17,000	6.25	16,000	17,000	6.25
Sokoto	6,000	8,000	33.3	12,000	15,000	25	10,000	15,000	50	20,000	20,000	0
Zamfara	4000	4500	12.5	10,000	15,000	50	10,000	10,000	0	10,000	10,000	0
Z. Mean	**5,800**	**7600**	**33.45**	**16,000**	**19,428.6**	**41.19**	**12,714.3**	**13,214.3**	**16.96**	**14,857.1**	**17,000**	**20.54**

Table 6.10: Cost of Tillage Operations in North Central Zone

State	North Central Zone											
	Land Clearing (₦/Ha)			Ploughing ((₦/Ha)			Harrowing ((₦/Ha)			Ridging ((₦/Ha)		
	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change
Abuja	N/A	10,000	0	N/A	25,000	0	N/A	25,000	0	N/A	15,000	0
Benue	11,000	8,000	-27.27	15,000	16800	12	15,000	15,000	0	15,000	17,000	13.3
Kogi	25,000	24,000	- 4	25,000	20,000	-20	25,000	20,000	-20	25,000	20,000	-20
Kwara	N/A	N/A	N/A	20, 000	20, 000	0	15,000	15,000	0	20, 000	20, 000	0
Nasarawa	17000	18000	5.9	20000	30,000	50	15000	30000	100	13000	20000	53.84
Niger	N/A	15,000	0	18,000	30,000	66.67	10,000	30,000	200	10,000	25,000	150
Plateau	20,000	18,000	-10	20,000	20,000	0	15,000	15,000	0	15,000	15,000	0
Z. Mean	**18,250**	**15,500**	**-23.7**	**19,666.7**	**23,114.3**	**15.53**	**15,833.3**	**21,428.6**	**40**	**16,333.3**	**18,857.1**	**28.16**

Table 6.11: Cost of Tillage Operations in South West Zone

State	Land Clearing (₦/Ha)			Ploughing ((₦/Ha)			Harrowing ((₦/Ha)			Ridging ((₦/Ha)		
	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change
Ekiti	N/A	N/A	N/A	18,500	18,750	1.35	13,200	14,000	6.1	12,500	13,000	4
Lagos	30,000	45,000	50	25,000	40,000	60	25,000	40,000	60	40,000	50,000	25
Ogun	30,000	N/A	0	20,000	25,000	25	20,000	18,000	-10	15,000	18,000	20
Ondo	15,000	12,500	-16.67	20,000	20,000	0	18,000	`18,000	0	15,000	14,000	-6.67
Osun	25,000	18,000	28	20,000	12,500	-37.5	N/A	12,500	0	20,000	12,500	-37.5
Oyo	25,000	30,000	20	17,500	17,500	0	17,500	17,500	0	17,500	17,500	0
Z. Mean	**20,833.3**	**26,375**	**16.27**	**20,166.7**	**22,291.7**	**8.14**	**18,740**	**20,000**	**9.35**	**20,000**	**20,833.3**	**0.81**

Table 6.12: Cost of Tillage Operations in South-South Zone

State	South South Zone											
	Land Clearing (₦/Ha)			Ploughing ((₦/Ha)			Harrowing ((₦/Ha)			Ridging ((₦/Ha)		
	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change
A/ Ibom	15,000	17,000	13.33	25,000	27,000	8	25,000	27,000	8	25,000	27,000	8
Bayelsa	N/A	7,000	0	N/A	7000	0	N/A	7000	0	N/A	N/A	0
C/River	N/A	2,200	0	N/A	35,000	0	N/A	25,000	0	N/A	15,000	0
Delta	0,000	8,000	-20	20,000	N/A	N/A	15,000	N/A	N/A	20,000	N/A	N/A
Edo	15,000	N/A	N/A	20,000	20,000	0	10,000	15,000	50	10,000	10,000	0
Rivers	20,000	30,000	50	50,000	50,000	0	40,000	35,000	12.5	40,000	35,000	-12.5
Z. Mean	**15,000**	**12,840**	**8.67**	**28,750**	**27,800**	**1.67**	**22,500**	**21,800**	**14.1**	**23,750**	**21,750**	**4.1**

Table 6.13: Cost of Tillage Operations in South East Zone

State	South East Zone											
	Land Clearing (₦/Ha)			Ploughing ((₦/Ha)			Harrowing ((₦/Ha)			Ridging ((₦/Ha)		
	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change
Abia	30,000	25,000	-16.7	25,000	25,000	0	25,000	25,000	0	18,000	25,000	38.8
Anambra	20,000	N/A	N/A	20,000	N/A	N/A	20,000	N/A	N/A	25,000	N/A	N/A
Ebonyi	20,000	20,000	0	40,000	50,000	25	40,000	45,000	12.5	40,000	50,000	25
Enugu	36,000	36,000	0	40,000	40,000	0	30,000	35,000	16.7	40,000	38,000	-5
Imo	16,000	10,000	-37.5	17,000	15,000	-11.8	20,000	15,000	-25	20,000	20,000	0
Z. Mean	**24,400**	**18,200**	**-13.6**	**28,400**	**32,500**	**3.3**	**27,000**	**30,000**	**1.05**	**28,600**	**33,250**	**14.7**

6.4 Agro-Processing Centres in Nigeria

Crop processing is a crucial step in converting raw harvested agricultural produce into valuable marketable products. This can be done either traditionally or with modern technology. Primary processing of crops includes threshing, shelling, and winnowing while the conversion of crops from their original form to another form like cassava flour, maize flour, etc. are secondary processing. Tables 6.14 to 6.19 show available processing Centres across the country, their locations, types of crop processed and their capacities. Processing plants available in the North East as presented in table 6.14 are situated in Bauchi, Gombe, and Yobe. Predominant crops processed are Maize, Rice, Sorghum, Cassava and ground nut with operating capacity ranging between 25 to 500MT/day.

Plate 6.3: Mechanical method of threshing crop.

Table 6.14 Processing Plants in North East Zone

State	Processing Centre	Crop Processed	Location	LGA	Operating capacity (MT/day)	Status
Bauchi	Kauri Flour Mill	Maize &	Azare	Katagum	500 MT	Functional
	Afra rice mill	Sorghum	Bauchi	Bauchi	150MT	Functional
	Ilham rice mill	Rice	Bauchi	Bauchi	150MT	Functional
	Goriya mill	Rice	Zigau	Shira	50MT	Functional
	Golbaki	Rice & Maize	Bauchi	Bauchi	50MT	Functional
	CFA Mill	Rice	Bauchi	Bauchi	50MT	Functional
		Rice				
Gombe	M.B Gauga	Rice	BCGA	Akko	30MT	Functional
	Lula Rice	Rice	Gosco	Gombe	30MT	Functional
	Siyako	Rice	Opposite high	Gombe	30MT	Functional
	Mass Rice	Rice	court	Gombe	30MT	Functional
	ATB	Rice	Near GG	Gombe	30MT	Functional
	Gombe G/nut Oil	G/nut	Doma	Gombe	30MT	Functional
	Millers		Industrial			
			cluster			
Taraba	Datco	Cassava flour	Jalingo	Jalingo	50MT	Functional
	Al-Ganzaki	Rice	Jalingo	Jalingo	25MT	Functional
	Al-Umma	Rice	Jalingo	Jalingo	30MT	Functional
	Fik Flows	Maize Flour	Wukari	Wukari	30MT	Functional
	Utten	Gari	Wukari	Wukari	25MT	Functional
Yobe	N/A	Crop	Damaturu	Damaturu	100 MT	Functional

Information provided on processing Centres in North West as presented in Table 6.15 indicates that predominant crops processed are rice, ground nut, cotton and sugarcane. Kebbi and Zamfara States have the same number of processing (6) Centres with operating capacities between 16 and 30MT/day while Jigawa State was reported to have just one processing centre.

Table 6.15 Processing Plants in North West Zone

State	Processing Centre	Crop Processed	Location	LGA	Operating capacity (MT/day)	Status
Jigawa	Kangire women oil	G/nut,	Birnin	Birnin Kudu	N/A	Functional
	producers	G/nut cake	Kudu			
Kebbi	Wacot Rice Mill	Rice	Argungu	Argungu	16MT	Functional
	Labana Rice Mill	Rice	B/Kebbi	B/Kebbi	16MT	Functional
	Lolo Golden Rice Mill	Rice	Kamba	Dandi	16MT	Functional
	Jada Rice	Rice	Jega	Jega	30MT	Functional
	Maccatt	Rice	Huda	B/Kebbi	20MT	Functional
Zamfara	Ginneries	Cotton	Gusau	Gusau	N/A	Functional
	Danmaikyau	Cotton	Gusau	Gusau	N/A	Functional
	Oil mills	Cotton &	Gusau	Gusau	N/A	Functional
	Gusau Sweet	G/nut	Gusau	Gusau	N/A	Functional
	Rufai Farms	Sugar Cane	Bungudu	Bungudu	N/A	Functional
	Nagwamatse Farms	Rice	Gusau	Gusau	N/A	Functional
		Rice				

In the North Central, processing Centres were available at Abuja, Benue, Kogi, Kwara, Nasarawa, Niger Plateau and Taraba States with operating capacity between 2 to 90MT/day. The major crops processed were Rice, Cassava, Yam and Soybean. Benue State has the highest number of processing Centres in the zone.

Table 6.16 Processing Plants in North Central Zone

State	Processing Centre	Crop Processed	Location	LGA	Operating capacity (MT/day)	Status
Abuja	Better life domestic centre	Cassava, Melon, Rice	Opp. Gwagwalada	G/Ladi	2MT	Functional
Benue	Bee MPC	Rice	Fiidi	Makurdi	5tons/day	Functional
	Gboko rice processors	Rice	Gboko	Gboko	10tons/day	Functional
	Makurdi rice processors	Rice	Wadata	Makurdi	20tons/day	Functional
	Miva rice plant Makurdi	Rice	Makurdi	Makurdi	50tons/day	Functional
	Otolebi Women MPCS	Cassava	Aidogodo	Okpokwu	5tons/day	Functional
	Emalonye Women	Cassava	Ugbokolo	Okpokwu	5tons/days	Functional
	MPCS	Cassava	Taraku	Gwer-East	5tons/days	Functional
	Akpu Processing Group	Soybean	Taraku	Gwer-East	30tons/day	Functional
	Taraku Mills	Soybean	Wannune	Tarka	10tons/day	Functional
	Hule Soy Oil Company	Tomato	Wannune	Tarka	20tons/day	Functional
	Tomato purce processing	Orange	Gboko	Gboko	1ton/day	Functional
	California Fresh					
Kogi	Surviver Nig. Ltd	Gari	Oboroke	Okeli	90tons/day	Functional
	Saroko farm	Fisheries	Lokoja	Lokoja	20tons/day	Functional
	ADP LVC	Livestock	Lokoja	Lokoja	30tons/day	Functional
	ADP Mill	Animal Feed	Lokoja	Lokaja	80tons/day	Functional
Kwara	Ebayoto Msc	Rice	Shonga	Edu	Small scale	Functional
	Taki Koro Msc	Yam flour	Kaima	Kaiama	Small scale	Functional
	Agbeere	Gari	Ilofa	Oke-Ero	Small scale	Functional
	Mirco process	Gari	Bukare	Baruteen	Small scale	Functional
	Ifedapo Msc	Gari	Osi	Ekiti	Small scale	Functional
	Agbelere Msc	Gari	Okedini	Ilorin East	Small scale	Functional
	Owonwami	Gari	Onijo	Ifelodun	Small scale	Functional
Nasarawa	Jica Incubation Plant	Rice	Lafia	Lafia	N/A	N/A
	Azuba Cassava	Cassava	Azuba	Azuba	N/A	N/A
	Ashangba Rice Mill	Rice	Ashangba	Ashangba	N/A	N/A
	Lafia Rice Mill	Rice	Lafiya	Lafiya	N/A	N/A
	Afraca Rice Mill	Rice	Lafiya	Lafiya	N/A	N/A
Niger	KOIKA	Rice	Bida	Bida	30MT	Functional
	RIPMPP	Rice	Bida	Bida	30MT	Functional
Plateau	Tim Tali Ricemill	Rice	Kwanpe	Langtang N	N/A	Functional
	Swomen Rice	Rice	Shendam	Shendam	N/A	Functional

Table 6.17 presents information on processing Centres available in the South East. The predominant crops processed are Rice, Cassavas, Oil palm and Cashew with operating capacities between 1 to 4000tonnes/day.

Table 6.17: Processing Plants in South East Zone

State	Processing Centre	Crop Processed	Location	LGA	Operating capacity (MT/day)	Status
Abia	Etiti Akanu Oil Processing	Oil	Akanu Ngwa	Ugwunagor	5tons	Functional
	Nkwebi Cass Ava Mill	Gari	Nkwebi Ohafia	Ohafia	5tons	Functional
	Ofeme Rice Mill	Rice	Ofeme	Umuahia South	5ton	Functional
	Atani Rice Mill	Rice	Atani	Arochukum	5tons	Functional
Ebonyi	Abakaliki Rice Mil	Rice	Abakaliki	Abakaliki	1ton	Functional
	Iboko	Rice	Iboko	Izzi	5tons	Functional
	Iiaro	Rice	Iiaro	Liaro	5tons	Functional
	Edda	Rice	Osu	Alpopos	5tons	Functional
	Ohankrou	Rice	Akuasin	Ohankrou	3tons	Functional
	Unmezcaka	Cassava	Ngbo	Ohankrou	3tons	Functional
Enugu	Tara Agro	Rice	Ogurugu	Uzouwani	4,300	Functional
	Okunerere	Rice	Adani	Uzouwani	4,000	Functional
	O-Mate	Rice	Adani	Uzouwani	2,000	Functional
	Animal Health	Day old	Eniene	Enugu East	100,000 Doc	Functional
	Sunchi	chicks	Enugu	Enugu	120,000 Doc	Functional
	Crisspy juice Fruit	Day old	Enugu	Enugu	N/A	Functional
	Isaac Lucky	chick	Enugu	Enugu	2,600	Functional
	Chidubem	Fruit	Udenu	Udenu	N/A	Functional
		Animal feed				
		Cashew				
Imo	Ohaimo farm centre	Gari	Obi-isii Isu	Isu	5tons	Functional
	Numo farms Ehime Mbano	Oil palm	Umunu	Ehime mbano	6tons	Functional
	Uju-nwa farm Ngor- Okpuala	Oil palm	moTown	Ngor Okpuala	7tons	Functional
			Airport village			

Processing plants available in the South West as presented in table 6.18 are situated in Ekiti, Lagos, Ogun, Ondo, Osun and Oyo States. The major crops processed are Rice, Cassava, Oil palm and Cocoa with operating capacity between 1 to 2400 tonnes/day. Ekiti and Ogun have the highest number of processing Centres.

Table 6.18 Processing Plants in South-West Zone

State	Processing Centre	Crop Processed	Location	LGA	Operating capacity (MT/day)	Status
Ekiti	Cassava Processing centre	Gari	Ilumoba	Gboyin	3tons	Functional
	Cassava Processing centre	Gari	Omua	Ekiti East	3tons	Functional
	Cassava Processing centre	Gari	Ilupeju	Oye	3tons	Functional
	Rice Processing centre	Rice	Ijero	Ijero	4.5tons	Functional
	Rice Processing centre	Rice	Ire	Oye	4.5tons	Functional
	Rice Processing centre	Rice	Ode	Gboyin	4.5tons	Functional
	Oil palm centre	Palm Oil	Ilupeju	Oye	3.5tons	Functional
	Oil palm centre	Palm Oil	Aisegba	Gboyin	3.5tons	Functional
	Oil palm centre	Palm Oil	Ilumoba	Gboyin	3.5 tons	Functional
Lagos	Cassava Processing centre	Gari	Araga	Epe	2tons	Non functional
	Imota Rice Mill	Rice	Imota	Ikoredu	32tons	Yet to be completed
	Idena Rice Mill	Rice	Idena	Epe	2ton	Yet to be completed
	Erikorodo	Day old Chick	Erikorodo	Ikoredu	50 birds	Functional
	Iya Afin Veg Fruit	Vegetable	Iya Afin	Badagary	2ton	Non functional
	Cassava Cottage Mill	Cassava flour	Agbowo	Epe	2ton	Functional
Ogun	Mitros Rice Mill	Rice	Abeukuta	Abk South	10tons	Functional
	Mitros Rice Mill	Rice	Sawonja	Yewa North	10 tons	Non Functional
	Riec Mill	Rice	Atan-Ijebu	Ijebu N.E	5tons	Non Functional
	Cassava Processing centre	Cassava	Imoru-ijebu	Ijebu-Ode	2tons	Functional
	Ijumo Rice Mill	Rice	Wasinmi	Ewekoro	1ton	Functional
	Matsol Allied	Cassava	Siun	Obafemi-Owode	2tons	Functional
	Blopmed Ltd	Cassava	Emuren	Ijebu-East	2tons	Functional
	Harvest feed	Cassava	Ajura	Obafemi-Owode	150tons	Functional
	Premium product Ltd	Cassava	Ososa	Odogbolu	240tons	Functional
Ondo	Matna	Starch	Akure North	Akure North	N/A	Functional
	Ile-Oluji Cocoa	Cocoa powder	Ile-oluji/oke-Igbo	Ile-oluji/oke-Igbo	N/A	Functional
	Okitipupo Oil Palm	Oil palm	Okitipupa	Okitipupa	N/A	Functional
	Npfs Gari Processing Plant	Gari	Ile-oluji, Okeluse	Okeluse	N/A	Functional
Osun	CATO	Cassava	Ile-ogbo	Ayedire	10MT	Functional
	Bismonco Nig ltd	Cassava	Iwo	Iwo	7MT	Functional
	Onjelagba	Cassava	Ikire-ilo	Olaoluwa	5MT	Non Functional
	Yemag Nig ltd	Cassava	Iwo	Iwo	2MT	Functional
Oyo	Oreofe Cassava processing	Gari, Lafun	Igbora	Ibara central	1ton	N/A
	Jesuloba Cassava processing	Gari, Lafun	Iseyin	Iseyin	1ton	N/A
	Ifedawapa Cassava processing	Gari, Gari	Iseyin	Iseyin	1ton	N/A
	Idewure Cassava processing	Gari, Lafun Garri	Idewure, Ogo-luwa Sanusi Ajaawa	Ogo-Oluwa Iseyin Ogo-Oluwa	1ton 1ton 1ton	N/A N/A N/A
	OIaoluwa Cassava processing	Shear butter	Ogeshaki	Saki	1ton	N/A
	Agbeloba Cassava processing					
	Shaki West Shear butter processing centre					

In the South-South, processing Centres were located in Akwa-Ibom, Bayelsa, Cross River, Delta, Edo and Rivers States with operating capacities between 1 to 240MT/day. The predominant crops processed were Yam, Plantain, Rice, Cassava, Cocoa, Oil palm and Potato. Edo State has the highest number of processing plant in the zone.

Table 6.19: Processing plants in South-South Zone

State	Processing Centre	Crop Processed	Location	LGA	Operating capacity (MT/day)	Status
Akwa Ibom	Cassava processing centre	Gari, Starch & flour	Mbak Nsit	Nsit Ibom	10MT	Functional
	Cassava processing centre	Gari & Starch	Ikot Ekang	Abak	5MT	Functional
	Cassava processing centre	Gari & Starch	Ikot Okudom	Eket	5MT	Functional
	Cassava processing centre	Gari & Starch	Nung Udoe	Ibesikpo Asutan	5MT	Functional
Bayelsa	Kalaba Cassava processing centre	Gari & Starch	Kalaba centre	N/A	N/A	N/A
	Otuegula Ops	Gari & Starch	Ebedidin	N/A	N/A	N/A
	Asaingbene	Gari & Starch	Otuegula Asaingbene	N/A	N/A	N/A
Cross River	Cocoa processing factory	Cocoa	Calabar	Calabar	N/A	Functional
	Creel Oil	Oil palm	Ikom	Ikom	240tons	Functional
	Mp Rice	Rice	Odukpami	Odukpami	6MT	Functional
	CRS Rice processing plant	Rice	Barsara	Ogoja	8MT	Non Functional
	Goddy logo farms	Cassava, Rice	Ogoja	Ogoja	8MT	Non Functional
Delta	Emuhu Gari Processing	Gari	Emuhu	Ika Ne	30% of capacity	Functional
	Ebu Gari processing	Gari	Ebu	Oshimilin	30% of capacity	Functional
	Okpanam Gari processing	Gari	OOkpanam	Oshimilin	30% of capacity	Functional
	Ekuku Agbor	Gari	Eku. Agbor	Ikas	30% of capacity	Functional
	Aladja Chip	Chips	Aladja	Udu	20% of capacity	Functional
	Omenegbome	Rice	Omenegbome	Omenegbome	15% of capacity	Functional
	Obior	Rice	Obior	Aniochan	15% of capacity	Functional
Edo	Agrotek	Rice	Ugboha, Esan	South-East	4,000 MT	Functional
	Pemo	Rice	Avielle	Etsako west	3,000 MT	Functional
	Inotech food	Plantain &	Benin	Oredo	1ton	Functional
	Santa Maria foods	Beans flour	Benin	Oredo	1ton	Functional
	Idaewor farmers	Yam flour	Fugar	Etsako	1ton	Functional
	Della food	Starch, Foofoo	Benin	central	1ton	Functional
	De-Ladder Establishment	Palm Oil	Ugbowo	Oredo	1ton	Functional
	Elahor farms	Palm Oil	Ekewan	Egor	1ton	Functional
	Bokesh farms	Palm Oil	Barracks	Egor	1ton	Functional
		Palm Oil	Igarra	Akoko		
Rivers	Rossy Endeavour	Cassava Flour	Ahoada	Ahoada East	8MT	Functional
	Green Ama spring	Plaintain	Okochri	Okrika	4MT	Functional
	Ego processing centre	Plantain flour, Garri, & Odorless Fufu,	Rukpokwu	Obiaakpor	8MT	Functional

6.5 Grain Reserves

Grains are stored in both traditional and modern storage structures which include rhumbu, barns and silos. Silos of varying storage capacities have been constructed in various locations across the country for the strategic grain reserves initiative of the government. The locations, storage capacity and functionality status of the government silos are presented in Tables 6.20 to 6.25. Apart from the silo complexes and their capacities provided by the Food and Strategic Reserves Department of the Federal Government, some States also have some silos where grains are reserved in their States to compliment the effort of the federal government.

Figure 6.4: Traditional Storage Structures for Storing Grain.

In the North East, four States have functional strategic grain reserves as presented in Table 6.20. The storage capacity ranges between 4000 to 25,000MT, the crops stored are Maize, Sorghum, and Millet. Information provided on the strategic grain reserve in the North West is presented in Table 6.21. The seven States in the Zone had Strategic grain reserves with storage capacity ranging between 1500 to 100,000MT. The data obtained revealed that six out of the seven grain reserves are functional while the functionality status of the Zamfara grain reserve was not provided. Grains stored are Maize, Millet and Sorghum. In the North Central, strategic grain reserves are located in Abuja, Benue, Kogi, Kwara, Nasarawa, Niger and Plateau. The storage capacity ranges between 4000 to 25,000MT and the crops stored are Maize, Gari and Sorghum.

Plate 6.5: Silo for grain reserve.

Table 6. 20: Silo Complexes and their Capacities in North East Zone

State	Location	Capacity (MT)	Grain type	Status
Adamawa	Yola	25,000	Maize	Functional
	Gombi	25,000	Sorghum	Functional
Bauchi	Bauchi	4000	Maize	Functional
	Azare	4000	Millet	Functional
	Boto	4000	Sorghum	Functional
	Wailo	25,000	Maize	Functional
Borno	Manguno	N/A	Maize	Functional
	Biu	N/A	Sorghum	Functional
	Maiduguri	N/A	Maize	Functional
	Bama	N/A	Sorghum	Functional
Taraba	Jalingo	25,000	Maize, Sorghum	Functional
Yobe	Damaturu	25,000	Maize & Millet	Functional

Table 6.21 Silo Complexes and their Capacities in North West Zone

State	Location	Capacity (MT)	Grain type	Status
Jigawa	Jahun	25,000	Maize	Functional
Kaduna	Kaduna	25,000	Maize	Functional
Kano	Gaya	25,000	Maize	Functional
	Magande	8600	Maize	Functional
	Gezawa	1500	Maize	Functional
Katsina	Dutsin-ma	25000	Maize &Sorghum	Functional
Kebbi	Birnin Kebbi	100,000	Maize	Functional
Sokoto	Kasarawa	10,000	Millet, Sorghum, Maize	Functional
Zamfara	Gusau	100,000	Maize & Sorghum	N/A

Table 6.22: Silo Complexes and their Capacities in North central Zone

State	Location	Capacity (MT)	Grain type	Status
Abuja	FCT Gwagwalada	100,000MT 10,000MT	Maize, G/corn Maize, G/corn	Functional Functional
Benue	Makurdi Otukpo	25,000 15,000	Gari Maize	Functional Functional
Kogi	Lokoja Ankapa	25,000 10,000	Maize, Sorghum Maize & Sorghum	Functional Functional
Kwara	Lafiagi	10,000	Maize	Functional
Nasarawa	Lafia	25,000	Maize, Millet,	Functional
Niger	Minna	25,000	Maize	Functional
Plateau	Jos South	25,000	Maize	N/A

Anambra, Ebonyi and Imo in the South East were reported to have functional grain reserves with storage capacity ranging between 25,000 to 100,000MT. Table 6.24 provides information on strategic grain reserves in South West Zone. The five silo complexes reported were all functional and the crops stored were Gari, and Maize. In the South South, there was no information provided for Delta and Rivers but the remaining four States had functional strategic reserves of storage capacity between 25,000MT to 100,00MT.

Table 6.23: Silo Complexes and their Capacities in South East Zone

State	Location	Capacity (MT)	Grain type	Status
Anambra	Igbariam	25,000	Gari	Functional
Ebonyi	Ezzillo	20,000	Maize, Soybean	Functional
Imo	Okigwe	100,000	Maize	Functional

Table 6.24: Silo Complexes and their Capacities in South West Zone

State	Location	Capacity (MT)	Grain type	Status
Ekiti	Poly road, Ado Ekiti	100,000	Maize	Functional
Ogun	Ikenne	25,000	Gari, Maize	Functional
Ondo	Akure	25,000	Gari	Functional
Osun	Ilesa	25,000	Maize	Functional
Oyo	Ibadan	25,000	Gari	Functional

Table 6.25: Silo Complexes and their Capacities in South-South Zone

State	Location	Capacity (MT)	Grain type	Status
Akwa Ibom	Uyo	25,000	Maize	Functional
Bayelsa	Yenagoa	100,000	Maize	Functional
Cross River	Yalalga	100,00	Maize, Sorghum	Functional
Delta	N/A	N/A	N/A	N/A
Edo	Irrua	25,000	Sorghum, Maize	Functional
Rivers	N/A	N/A	N/A	N/A

7.0 COST OF PRODUCTION OF MAJOR CROPS

The cost of production per hectare for cereals, legumes, roots tubers, fruits and vegetables crops in all States across the six (6) agro-ecological zones are captured in this report. The crops captured were categorized into Cereals and Legumes (rice, maize, sorghum, millet and cowpea, soybean, groundnut, melon, Bambara nut, Beniseed), Roots and Tubers (cassava, yam, cocoyam, sweet potato, ginger, cocoa and oil palm), Fruits and Vegetables (tomatoes, pepper, plantain/banana, okra, citrus and leafy vegetables). The cost of producing these afore-mentioned crops was calculated in Naira (₦) per hectare (Ha), with percentage (+%) increase or (-%) decrease from 2019 wet season.

7.1 Cereals and Legumes

Cereals and legumes are generally cultivated in Nigeria for the edible components of their grains. They have the tendencies to be cultivated under both rain fed and irrigated farming for consumption, livestock forage and silage, and as soil-enhancing green manure. Cereal crops captured in the 2020 APS survey are presented below:

North-Central Zone

In this years' wet season, the cost of producing cereal crops have generally increased in all States of the North-Central Zone with the exception of Plateau State and FCT that recorded -39.7% and -28.1% decrease in the cost of producing maize (Table 7.1). Among all States in the zone Benue and Nasarawa State recorded the highest increase in the cost of production.

North-East Zone

The cost of producing maize, cowpea, groundnut, rice, sorghum, soybean, millet and Beniseed have generally increased in the North-east zone when compared with what it was obtained in 2019 wet season. Exceptionally Borno State reported a decrease in cost of producing cowpea and millet by -52.7% and -52.0% (Table 7.2) and sorghum by -33.6% in Bauchi State. Adamawa, Gombe and Yobe States recorded the highest increase in the cost of producing cereal crops across the zone. The increase in cost of production in 2020 was attributed to increase in the cost of inputs due to high demand and shortage of supply caused by the restrictions of the COVID-19 pandemic.

7.1.3 North-West Zone

The average cost of producing cereals and legumes have generally increased in the north-west zone as indicated by the percentage change between 2019 and 2020. Jigawa and Kaduna States recorded a percentage decrease in the cost of production (Table 7.3). This was influenced by certain factors such as; increase in the cost of production inputs, caused by shortage of the inputs supply due to COVID-19 lockdown policy. Kano, Katsina and Kebbi States recorded the highest increase in cost of production in 2020 over 2019.

South-East Zone

The average cost of producing the major cereals (maize and rice) in the South-East was ₦273, 796 and ₦369, 854 in 2019 as compared to ₦292, 883 and ₦397, 688 in 2020 with a percentage decrease of about -8% for maize and increase of about 44% for rice (Table 7.4).

Notably, there was a high percentage increase in the cost of producing maize in Abia State while there was no change in the cost of rice production. Imo State thus reported a significantly high percentage change in the cost of producing rice (167%). Reportedly caused by movement restrictions of the COVID-19 pandemic. the change of cost of production of Beniseed and groundnut was between 33% and 36% in Ebonyi State.

South-South Zone

The cost of producing cereals and legumes in the South-South zone increased in 2020 except in Edo State (Tables 7.5) with percentage decrease change of -4% for maize production, -14% and -30% for rice and soybean production. The percentage change for rice in Rivers was pointedly high 50% and remains high for maize (77%) and cowpea (56%). On the average the zone recorded an increase in the cost of production of maize (23%), rice (21%) and cowpea (21%). The resultant increase was also due the unavailability of production inputs especially fertilizer blamed on the complete lockdown of the country.

South-West Zone

Two States in the South-West (Ogun and Ondo States) reported a decrease in cost of producing maize with percentage change of -3% and -88% in 2020 when compared to 2019 (Table 7.6). While rice recorded an increase in cost of production with a percentage change of 9% except Ogun State (-2%). On the average, the whole zone experienced a percentage decrease change of about -4% (maize) and an increase change 9% (rice). On the other-hand deceasing change of cost of cowpea production was only indicated in Ogun State (about -3%), while the average change remained at 4% in the zone.

Table 7. 1: Cost of Producing Cereals and Legumes in the North Central Zone (₦/Ha)

States	Maize			Melon			Cowpea			Groundnut		
	2019	2020	% change	2019	2020	% change	NA	2020	% change	2019	2020	% change
Benue	185,000	358,000	93.5	295,000	305,400	3.5	109,180	N/A	N/A	314,000	314,000	0.0
FCT	123,085	134,000	8.9	N/A	N/A	N/A	N/A	108,425	N/A	103,000	106,000	2.9
Kogi	N/A	138,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Kwara	150,000	150,000	0.0	N/A	N/A	N/A	100,000	N/A	N/A	N/A	N/A	N/A
Nasarawa	140,000	150,000	7.1	120,000	120,000	0.0	170,000	N/A	N/A	120,000	N/A	N/A
Niger	180,000	180,000	0.0	N/A	N/A	N/A	142,320	160,000	12.4	160,000.00	N/A	N/A
Plateau	219,480	132,400	-39.7	N/A	N/A	N/A	132,000	139,400	5.6	207,200	211,300	2.0
Average	**166,261**	**177,486**	**6.8**	**207,500**	**212,700**	**2.5**	**130,700**	**135,942**	**4.0**	**180,840**	**210,433**	**16.4**

N/A - Not available

Table 7. 1 (continued): Cost of Producing Cereals and Legumes in the North Central Zone (₦/Ha)

States	Rice			Sorghum			Soybean			Millet			Beniseed		
	2019	2020	% change	2019	2020	% change	2019	2020	% change	2019	2020	% change	2019	2020	% change
Benue	220,913	356,300	61.3	350,000	352,100	0.6	171,050	322,000	88.2	N/A	N/A	N/A	N/A	N/A	N/A
FCT	187,500	134,800	-28.1	80,340.00	81,000	0.8	N/A	N/A	N/A	76,000	78,000	2.6	N/A	N/A	N/A
Kogi	145,000	155,000	6.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	95,000	105,000	10.5
Kwara	150,000	180,000	20.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nasarawa	180,000	240,000	33.3	130,000.00	N/A	N/A	150,000	150,000	0.0	N/A	N/A	N/A	110,000	120,000	9.1
Niger	200,000	200,000	0.0	160,000.00	N/A	N/A	175,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Plateau	284,570	296,300	4.1	126,860.00	N/A	N/A	135,039	144,200	6.8	163,500	174,800	6.9	N/A	N/A	N/A
Average	**195,426**	**223,200**	**14.2**	**169,440**	**216,550**	**27.8**	**157,772**	**205,400**	**30.2**	**119,750**	**126,400**	**5.6**	**102,500**	**112,500**	**9.8**

Table 7.2: Cost of Producing Cereals and Legumes in the North East Zone (₦/Ha)

States	Maize			Cowpea			Groundnut			Rice		
	2019	2020	% change	2019	2020	% change	2019	2020	% change	2019	2020	% change
Adamawa	180,000	335,070	86.2	100,000	326,910	226.9	160,000	329,970	106.2	150,000	396,780	164.5
Bauchi	190,000	195,000	2.6	105,000	110,000	4.8	100,000	115,000	15.0	200,000	210,000	5.0
Borno	250,000	300,000	20.0	275,000	130,000	-52.7	285,000	N/A	N/A	300,000	325,000	8.3
Gombe	170,000	250,000	47.1	40,000	52,300	30.8	75,500	N/A	N/A	130,000	180,000	38.5
Yobe	77,500	N/A	N/A	74,000	120,000	62.2	80,000	200,000	150.0	95,000	300,000	215.8
Taraba	180,000	200,000	11.1	175,000	180,000	2.9	165,000	170,000	3.0	260,000	320,000	23.1
Average	**174,583**	**256,014**	**46.6**	**128,167**	**153,202**	**19.5**	**144,250**	**203,743**	**41.2**	**189,167**	**288,630**	**52.6**

N/A - Not available

Table 7.2 (continued): Cost of Producing Cereals and Legumes in the North East Zone (₦/Ha)

States	Sorghum			Soybean			Millet			Beniseed		
	2019	2020	% change	2019	2020	% change	2019	2020	% change	2019	2020	% change
Adamawa	145,000	332,010	129.0	100,000	326,910	226.9	90,000	N/A	N/A	N/A	N/A	N/A
Bauchi	150,600	100,000	-33.6	110,000	115,000	4.5	110,000	110,000	0.0	115,500	120,000	3.9
Borno	250,000	N/A	N/A	250,000	N/A	N/A	250,000	120,000	-52.0	N/A	N/A	N/A
Gombe	45,000	65,000	44.4	45,000	70,000	55.6	60,000	101,750	69.6	N/A	N/A	N/A
Yobe	80,000	185,000	131.3	72,000	N/A	N/A	70,000	180,000	157.1	N/A	N/A	N/A
Taraba	75,000	85,000	13.3	220,000	230,000	4.5	N/A	N/A	N/A	N/A	N/A	N/A
Average	**124,267**	**153,402**	**23.4**	**132,833**	**185,478**	**39.6**	**116,000**	**127,938**	**10.3**	**115,500**	**120,000**	**3.9**

N/A - Not available

. Table 7.3: Cost of Producing Cereals and Legumes in the North West Zone (₦/Ha)

States	Maize			Cowpea			Groundnut			Wheat		
	2019	2020	% change	2019	2020	% change	2019	2020	% change	2019	2020	% change
Jigawa	200,000	265,873	32.9	160,000	N/A	N/A	220,000	150,000	-31.8	288,295	307,200	6.6
Kaduna	215,000	200,000	-7.0	N/A	170,000	N/A	NA	N/A	N/A	N/A	N/A	N/A
Kano	170,000	190,000	11.8	105,000	175,000	66.7	150,000	N/A	N/A	N/A	N/A	N/A
Katsina	220,000	295,180	34.2	120,000	200,000	66.7	135,000	215,150	59.4	N/A	N/A	N/A
Kebbi	120,000	180,000	50.0	110,000	N/A	N/A	125,000	185,000	48.0	N/A	N/A	N/A
Sokoto	198,000	225,000	13.6	152,000	N/A	N/A	153,000	N/A	N/A	241,735	250,000	3.4
Zamfara	250,000	N/A	N/A	110,000	N/A	N/A	185,000	N/A	N/A	N/A	N/A	N/A
Average	**196,143**	**226,009**	**15.2**	**126,167**	**181,667**	**44.0**	**161,333**	**183,383**	**13.7**	**265,015**	**278,600**	**5.1**

N/A - Not available

Table 7.3 (continued): Cost of Producing Cereals and Legumes in the North West Zone (₦/Ha)

States	Rice			Sorghum			Soybean			Millet			Sessame		
	2019	2020	% change	2019	2020	% change	2019	2020	% change	2019	2020	% change	2019	2020	% change
Jigawa	280,000	N/A	N/A	180,000	152,300	-15.4	NA	NA	N/A	180,000	72,000.0	-60.0	N/A	N/A	N/A
Kaduna	265,000	190,000	-28.3	N/A	140,000	N/A	200,000	228,600	14.3	N/A	N/A	N/A	N/A	N/A	N/A
Kano	185,000	240,000	29.7	120,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Katsina	225,000	241,257	7.2	170,000	166,250	-2.2	160,000	NA	N/A	155,000	177,150	14.3	N/A	N/A	N/A
Kebbi	125,000	187,100	49.7	120,000	163,500	36.3	NA	NA	N/A	120,000	N/A	N/A	N/A	N/A	N/A
Sokoto	220,000	141,000	-35.9	193,000	200,000	3.6	130,800	142,900	9.3	186,000	N/A	N/A	161,950	170,000	5.0
Zamfara	150,000	N/A	N/A	120,000	N/A	N/A	120,000	N/A	N/A	120,000	N/A	N/A	N/A	N/A	N/A
Average	**207,143**	**199,871**	**-3.5**	**150,500**	**164,410**	**9.2**	**137,700**	**151,450**	**10.0**	**152,200**	**124,575**	**-18.2**	**161,950**	**170,000**	**5.0**

N/A - Not available

Table 7.4: Cost of Producing Cereals and Legumes in the South-East Zone (₦/Ha)

States	Maize			Groundnut		
	2019	2020	% change	2019	2020	% change
Abia	420,000	160000	-61.9048	N/A	N/A	N/A
Anambra	120,000	N/A	N/A	N/A	N/A	N/A
Ebonyi	105,000	120000	14.28571	110,000.00	150000	36.36
Enugu	343,980	412500	19.91976	N/A	N/A	N/A
Imo	380,000	370000	-2.63158	N/A	N/A	N/A
Average	273796	265625	-7.58272	N/A	N/A	N/A

N/A - Not available

Table 7.4 (continued): Cost of Producing Cereals and Legumes in the South-East Zone (₦/Ha)

States	Rice			Beniseed		
	2019	2020	% change	2019	2020	% change
Abia	380,000	380000	0	NA	NA	NA
Anambra	140,000	NA	NA	NA	NA	NA
Ebonyi	450,000	500000	11.11	15000	20000	33.33
Enugu	359,415	350750	-2.41	NA	NA	NA
Imo	135,000	360000	166.67	NA	NA	NA
Average	292883	397688	44			

N/A - Not available

Table 7.5: Cost of Producing Cereals and Legumes in the South-South Zone (₦/Ha)

States	Maize			Melon			Cowpea			Groundnut		
	2019	2020	% change	2019	2020	% change	2019	2020	% change	2019	2020	% change
Cross River	105,723	126,867	20	63,748	73,311	15	NA	NA	NA	70755	91982	30
Delta	94,400	94,600	0.21	9,800	10,000	2.04	101,000	101,400	0.4	NA	NA	NA
Edo	265,000	253,751	-4.25	224,830	281,830	25.35	264,830	279,830	5.66	NA	NA	NA
Rivers	175,000	309,700	76.97	NA	NA	NA	215,000	335,600	56.09	NA	NA	NA
Average	160,031	196,230	23	99,460	121,714	14	193,610	238,943	21	NA	NA	NA

N/A - Not available

Table 7.5 (continued): Cost of Producing Cereals and Legumes in the South-South Zone (₦/Ha)

States	Rice			Soybean		
	2019	2020	% change	2019	2020	% change
Cross River	183,037	228,796	25	NA	NA	NA
Edo	324,830	279,819	-13.86	262,580	184,960	-29.56
Rivers	180,000	270,700	50.39	NA	NA	NA
Average	229,289	259,772	20.51	NA	NA	NA

* *Not available*

Table 7.6: Cost of Producing Cereals and Legumes in the South-West Zone (₦/Ha)

States	Maize			Cowpea		
	2019	2020	% change	2019	2020	% change
Ekiti	260,000	270,000	3.85	220,000	233,000	5.91
Lagos	300,000	384,500	28.17	N/A	N/A	N/A
Ogun	125,389	121,488	-3.11	3,634	3,543	-2.5
Ondo	150,000	18,500	-87.67	N/A	N/A	N/A
Osun	110,000	140,000	27.27	90,000	94,428	4.92
Oyo	140,000	155,000	10.71	136,000	146,000	7.35
Average	183,398	181,581	-3.46	120,408	127,635.80	3.92

N/A - Not available

Table 7.6 (continued): Cost of Producing Cereals and Legumes in the South-West Zone (₦/Ha)

States	Rice			Soybean		
	2019	2020	% change	2019	2020	% change
Ekiti	250000	255000	2	250000	258000	3.2
Lagos	350000	400000	14.23	N/A	N/A	N/A
Ogun	48291	47566	-1.5	N/A	N/A	N/A
Ondo	280,000	336,000	20	N/A	N/A	N/A
Osun	350,000	379,155	8.33	N/A	N/A	N/A
Oyo	131,500	141,901	7.91	144000	160000	11.11
Average	192, 882	213,761	8.51	197000	209000	7.12

N/A - Not available

7.2 Root and Tubers

Roots and tubers are second most important crops after cereals in Nigeria. They are important staple source of energy. The crops considered include; Cassava, Yam, Cocoyam, Sweet potato, Ginger, Cocoa and Sugar cane.

North-East Zone

The root and tuber crops observed in north east region in 2020 are mainly Cassava and Yam. The data reveals a percentage increase in the cost of producing Cassava and Yam in 2020 with the exception of Adamawa State that recorded a percentage decrease of -3.7% in Yam production. Borno, Gombe, and Yobe States have not recorded any data on both Cassava and Yam production cost (Table 7.7)

North-Central Zone

The result reveals a percentage increase in the cost of producing cassava and yam in 2020 except for Kogi and Kwara States that experienced a decrease in the cost of producing cassava in 2020 as compared to 2019 (Table 7.8). Nasarawa State recorded no change in the cost of production for yam and cassava. Some of the States in the zone have not reported any data for cocoyam, potato and sugarcane

South-East Zone

There was an overall increase in the cost of production of all the crops in the South-East region except in Enugu State. The cost of producing cassava and yam decreased from ₦674, 730 in 2019 to ₦452, 125 in 2020 for cassava and ₦722, 138 in 2019 to ₦685, 000 in 2020 for yam in Enugu State (Table 7.9). While Imo State reported higher changes in the production cost of all the tubers. The mean cost change increased across all reported tubers (yam (5%), cocoyam (12%) and sweet potato (18%)) in the zone except cassava recording a decrease of about -1%.

South-South Zone

Significant reduction in the cost of production of cassava (-89%) was indicated by Bayelsa State in the South-South region as indicated in Table 7.10. While the highest change was reported by Akwa-Ibom State, from ₦206, 000 in 2019 to ₦250, 000 in 2020. Conversely the region showed a decreasing change (-12%) in total cost of production of cassava. Delta State recorded a marginal percentage change in terms of cassava production (0.1%) from 2019 to that of 2020. There was however positive increase in terms of cassava (15%), yam (15%), cocoyam (25%), sweet potato (15%) and cocoa (20%) production in Cross River State. The only ginger producing State (Ebonyi State) showed that the cost of production has increased from ₦788, 330 in 2019 to about ₦843, 330 in 2020.

South-West Zone

The South-Western States in Table 7.11 reported the average cost of production for cassava and yam to stand at ₦232, 079 (2019) and ₦238, 991 (2020) with an increase change of 2% for cassava, ₦354, 850 (2019) and ₦323, 505 (2020) recording percentage decrease change of -14% for yam. Separately, Ogun State recorded a decrease cost change in cassava (-2%),

yam (-5%) and cocoyam (-3%) production. However, Ondo State recorded no change, while Lagos recorded the highest cost change (17%) in terms of cassava production in the zone.

No data was available for cost of production of roots and tubers in all the States in the North Western-Zone.

Table 7.7: Cost of Producing Root & Tubers in the North East Zone (₦/Ha)

States	Cassava			Yam		
	2019	2020	% change	2019	2020	% change
Adamawa	336,500	343,230	2.0	320,000	308,040	-3.7
Bauchi	100,000	110,000	10.0	N/A	N/A	N/A
Borno	N/A	N/A	N/A	N/A	N/A	N/A
Gombe	N/A	N/A	N/A	N/A	N/A	N/A
Yobe	N/A	N/A	N/A	N/A	N/A	N/A
Taraba	N/A	N/A	N/A	350,000	450,000	28.6
Average	**218,250**	**226,615**	**3.8**	**335,000**	**379,020**	**13.1**

* *N/A - Not available*

Table 7.8: Cost of Producing Root & Tubers in the North Central Zone (₦/Ha)

States	Cassava			Yam			Cocoyam			Potato			Sugarcane		
	2019	2020	% change	2019	2020	% change	2019	2020	% change	2019	2020	% change	2019	2020	% change
Benue	185,000	298,200	61.2	210,000	462,000	120.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FCT	109,180	114,400	4.8	280,160	291,150	3.9	80,340	81,000	0.8	N/A	N/A	N/A	256,000	257,000	0.4
Kogi	175,000	128,000	-26.9	150,000	189,000	26.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Kwara	180,000	160,000	-11.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nasarawa	150,000	150,000	0.0	800,000	800,000	0.0	N/A	N/A	N/A	150,000	150,000	0.0	N/A	N/A	N/A
Niger	N/A	N/A	N/A	800,000	200,000	-75.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Plateau	N/A	N/A	N/A	403,500	410,600	1.8	N/A	N/A	N/A	624,000	705,100	13.0	N/A	N/A	N/A
Average	**159,836**	**170,120**	**6.4**	**440,610**	**392,125**	**-11.0**				**387,000**	**427,550**	**10.5**			

* *N/A - Not available*

Table 7.9: Cost of Producing Roots and Tubers in the South-East Zone (₦/Ha)

States	Cassava			Yam			Cocoyam			Sweet potato		
	2019	2020	% change	2019	2020	% change	2019	2020	% change	2019	2020	% change
Abia	360000	380000	5.56	380000	401000	5.53	NA	NA	NA	NA	NA	NA
Anambra	150000	NA	NA	150000	NA	NA	NA	NA	NA	NA	NA	NA
Ebonyi	180000	200000	11.11	650000	700000	7.69	154000	170000	10.39	165000	185000	12.5
Enugu	674730	452125	-32.99	722138	685000	-5.14	379260	385000	1.51	NA	NA	NA
Imo	400000	450000	12.5	520000	580000	11.54	200000	250000	25	80600	100000	24.07
Average	**352946**	**370531.3**	**-0.96**	**484427.6**	**591500**	**4.9**	**244420**	**268333.3**	**12.3**	**122800**	**142500**	**18.28**

* *N/A - Not available*

Table 7.10: Cost of Producing Roots and Tubers and Tree Crops in the South-South Zone (₦/Ha)

States	Cassava			Yam			Cocoyam			Sweet potato			Cocoa			Oil Palm		
	2019	2020	% change	2019	2020	% change	2019	2020	% change	2019	2020	% change	2019	2020	% change	2019	2020	% change
Akwa-Ibom	206,000	250,000	21.36	260,000	270,000	3.85	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	286,000	300,000	4.9
Cross River	223,346	256,848	15	286,687	329,689	15	54,131	67,664	25	80,889	93024	15	357,925	429,510	20	258941	349570	35
Delta	96,900	97,000	0.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Edo	324,830	232,603	-28.39	1,083,330	1,183,330	9.23	698,330	700,330	0.29	N/A	N/A	N/A	788,330	843,330	6.98	N/A	N/A	N/A
Bayelsa	900,000	100,000	-88.89	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
Rivers	288,000	302,400	5	2,240,500	2,240,700	31.53	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	**365,013**	**229,409**	**-13.43**	**967,629**	**1,005,930**	**7.02**	**376,231**	**383,997**	**12.64**	-	-	-	-	-	-	**272,471**	**324,785**	**19.95**

* *N/A - Not available*

Table 7.11: Cost of Producing Roots and Tubers and Tree Crops in the South-West Zone (₦/Ha)

States	Cassava			Yam			Cocoyam			Sweet potato			Cocoa			Oil Palm		
	2019	2020	% change	2019	2020	% change	2019	2020	% change	2019	2020	% change	2019	2020	% change	2019	2020	% change
Ekiti	250,000	255,000	2	875,600	880,000	0.5	355,400	380,600	7.09	N/A	N/A	N/A	238,550	260,000	8.99	400,280	430,000	7.43
Lagos	300,000	350,000	16.67	200,000	N/A	NA	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	276,971	271,944	-1.82	55,000	52,525	-4.5	15,090	14,713	-2.5	147,600	156,200	5.83	N/A	N/A	N/A	N/A	N/A	N/A
Ondo	250,000	250,000	0	500,000	350,000	-30	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	170,000	155,000	-8.82	350,000	155,000	-55.71	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	145,500	152,000	4.48	148,500	180,000	21.21	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Aver.	**232,079**	**238,991**	**2.08**	**354,850**	**323,505**	**-13.7**	**185245**	**197,657**	**2.3**									

* *N/A - Not available*

7.3 Fruits and Vegetables

Fruits and vegetables contain important vitamins, minerals and plant chemicals. A fruit develops from the flower of the plant while the other part of the plant is referred to as vegetable.

South-East Zone

In Table 7.18, there were only two States that reported the production of two crops in the South-East region. Majorly, Imo State reported increase in the cost of production of all the fruit and vegetable crops produced in the State. Noteworthy is the increase change in the cost of production of pineapple from ₦70, 000 in 2019 to ₦95, 000 in 2020 giving a percentage change of about 36%.

South-South Zone

In the South-South, only Delta State reported changes in the cost of production of tomato standing at ₦142, 000 in 2019 and ₦142, 800 in 2020 with a marginal change of only 0.6% (Table 7.19). Further, the average change in cost of production in the zone for plantain was 7% with Edo State presenting the highest change (16%).

South-West Zone

Ekiti, Lagos, Ogun and Ondo were the only States that reported the cost of producing tomato, pepper and Okra in the South-Western zone (Table 7.20). There was a general increase in the cost of producing tomatoes and okra with Lagos State reporting the highest cost of producing tomato at ₦200, 000 in 2020 against ₦150, 000 in 2019. There was however a decrease in the cost of producing okra in Ogun State, reporting a decrease change of -2%.

Table 7.18: Cost of Producing Fruits and Vegetables in the South-East Zone (₦/Ha)

States	Tomato			Okra			Pepper			Pineapple			Plantain		
	2019	2020	% change	2019	2020	% change	2019	2020	% change	2019	2020	% change	2019	2020	% change
Ebonyi	N/A	N/A	N/A	N/A	N/A	N/A	15,000	20,000	33.33	N/A	N/A	N/A	N/A	N/A	N/A
Imo	120,000	130,000	8.33	N/A	N/A	N/A	120,000	130,000	8.33	70,000	95,000	35.71	85,000	100,000	17.65
Average									**20.83**						

N/A - Not available

Table 7.19: Cost of Producing Fruits and Vegetables in the South-West Zone (₦/Ha)

States	Tomato			Okra			Leafy Vegetables			Pepper			Plantain			Citrus		
	2019	2020	% change	2019	2020	% change	2019	2020	% change	2019	2020	% change	2019	2020	% change	2019	2020	% change
Ekiti	255,000	258,000	1.18	195,600	198,500	1.48	180,000	200,000	11.11	N/A	N/A	N/A	320,000	352,000	10	386,000	400,000	3.63
Lagos	150,000	200,000	33.33	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
Ogun	N/A	N/A	N/A	28,500	27,930	-2	N/A	N/A	N/A	N/A	N/A	N/A	421,500	448,420	6.39	N/A	N/A	N/A
Ondo	350,000	400,000	14.29	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
Oyo	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	134,000	140,000	4.48	N/A	N/A	N/A	N/A	N/A	N/A
Aver.	**251,667**	**286,000**	**16.27**	**112,050**	**113,215**	**-0.26**	**180,000**	**200,000**	**11.11**				**370,750**	**400,210**	**8.19**			

N/A - Not available

Table 7.20: Cost of Producing Fruits and Vegetables in the South-South Zone

States	Tomato			Okra			Pepper			Plantain		
	2019	2020	% change	2019	2020	% change	2019	2020	% change	2019	2020	% change
Akwa-Ibom	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	180000	190000	5.56
Delta	142000	142800	0.56	100950	101200	0.25	97000	97400	0.41	N/A	N/A	N/A
Edo	N/A	N/A	N/A	274160	289100	5.45	N/A	N/A	N/A	349200	404700	15.89
Rivers	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	630200	630500	0.05
Average										**386466.7**	**408400**	**7.17**

N/A-Not available

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 2019 and the corresponding periods in 2020. The tables for commodity prices were presented according to the 6 geopolitical zones of the country for ease of comparison. All values Stated are obtained from the analysis which compares the month of July 2020 to the same month last year.

8.1 Prices of Maize, Millet, Sorghum and Milled Rice

Increases in food prices especially for major cereals when compared with the previous year has continued unabated across the 36 States and the FCT. The high prices witnessed in the States are not different from the usual seasonal hike in prices experience during the lean period. Although, this may have been exacerbated during the month of July 2020 amidst COVID-19 mitigation measures which disrupted supply chains of major staple and cash crops across the country. Continuing demand for these four crops by households is reflected in the sudden and unanticipated sharp increase in prices with an upward trend.

Market prices of maize, millet, sorghum and milled rice were compared for January 2019/2020 and July 2019/2020. In line with seasonal trends, national average cereal prices have been increasing across the Zones (Table 8.1 – Table 8.6).

Markets in Nigeria continue to experience higher than usual maize prices. In July 2020, the national average maize price continues to rise above the 5-year average. For the period under review, strong significant increase of above 80% in the price of maize was witnessed as Adamawa and Jigawa States recorded the highest increase of 92% and 88% respectively in maize prices. Moreover, there was a significant increase in the price of maize across all zones. The highest percentage mean price variation for maize was recorded in the North Central Zone, while the lowest percentage mean price variation was recorded in the North-East Zone.

Prices of locally grown millet faced an upward surge when compared across States. Katsina and Yobe States recorded the highest increase (67% and 66%) respectively in millet prices. The highest percentage mean price variation for millet was recorded in the North East and North West Zones while the lowest mean increase was recorded in the South East. Generally, there was a 40% increase in price across all zones in the country.

The highest increase in Sorghum prices was reported in the South East and South South Zones. Ebonyi and Edo States recorded the highest price increase of 75% and 71% at a selling price of ₦220/Kg. The highest percentage mean price variation for sorghum price was recorded in the South South while the lowest mean increase was recorded in the North West. Generally, there was a 50% increase in price across all zones in the country.

The price of milled rice recorded an upward trend across the country. The highest increase in price was recorded in Jigawa, Plateau and the FCT with an increase of 83%. The highest percentage mean price variation for milled rice was recorded in the North Central Zone with (80%) while the lowest percentage mean price variation was recorded in the South-South with (46%).

8.2 Prices of Cowpea, Ginger, Groundnut and Benniseed

Comparison of market prices of Cowpea, Ginger and groundnuts were made for January 2019/2020 and July 2019/2020. Generally, the prices of cowpea ginger, groundnut and beniseed increase across all zones in the country (Table 8.7 – Table 8.12).

Nigeria is the largest producer and consumer of more than 7.4 million tons of cowpea produced worldwide, Nigeria accounts for 48% of production in Africa and 46% worldwide. There was slight increase in the price of cowpea when compared with July 2020 across the States. Adamawa State recorded the highest increase (14%) while Niger State recorded the lowest increase (1%) in cowpea prices. There was sudden increase in the price of cowpea as a result of disruption in the supply chain of cowpea into the market. The highest percentage mean price variation for cowpea was recorded in the North West Zone with 10% while the lowest mean of 6% was recorded in the North Central Zone.

Producing almost 523,000 tonnes annually, Nigeria has a 14% share in total global ginger production and is projected to keep growing at 6% per annum. Ginger is mainly grown in the Northern part of the country most especially in Kaduna State. The price of ginger faced the highest increase in Adamawa and Rivers States with a selling price of ₦420/Kg and ₦398.5/Kg respectively while Kaduna State had the lowest price at ₦306.3/Kg.

The highest increase in groundnut prices was reported in Bauchi (13%) and Adamawa (11%) States while Borno and Nasarawa States had the lowest increase of 5%. For the month of July 2020, the lowest percentage mean price variation for groundnut was in the North West Zone while the highest percentage mean price variation was in the South South Zone.

Nigeria is currently the seventh largest producer of beniseed worldwide; the highest increase in the price of beniseed was in Kano (18%) and Bauchi (17%) States. The highest percentage mean price variation for beniseed was recorded in the North East Zone.

Price of beniseed was not made available for all the States in the South West and South South Zones.

8.3 Prices of Beef, Chevon (Goat meat) and Mutton

Comparison of market prices of beef, goat meat and mutton were made for January 2019/2020 and July 2019/2020. Generally, there was price fluctuation for the commodities across all zones in the country. Comparing July 2019 and July 2020, the prices of food commodities like beef, chevon and mutton prices increased slightly or remained stable across all the States and FCT (Table 8.13 – Table 8.18).

The highest increase in price of beef was recorded in Kwara (50%) and Lagos State (30%) while Rivers State recorded a decrease of 7% in price. The highest percentage mean price variation for beef was recorded in the North Central Zone while the lowest was recorded in the South-East Zone.

Compared to July 2019, the prices of chevon (goat meat) showed an increase of 50 and 36 percent in Sokoto and Ondo States respectively while Bauchi State had a decrease of 8%. The highest percentage mean price variation for goat meat was recorded in the North East and South West Zone while the lowest was recorded in the South East Zone.

The price of mutton increased by 33 and 22 percent in Niger and Taraba States respectively compared to last year. Borno State recorded the lowest increase in price with 4% while in Katsina, Kebbi and Zamfara States, the price remains stable. The highest percentage mean price variation for mutton was recorded in the North Central Zone.

8.4 Prices of Fresh, Dry and Frozen Fish

Comparison of market prices of fresh, dry and frozen fish were made for January 2019/2020 and July 2019/2020. Generally, there was price increase for the commodities across all zones in the country (Table 8.19 – Table 8.24).

The highest increase in price of fresh fish was recorded in Kogi State (25%) while Cross River and Rivers States recorded the lowest increase in price by 4%. The highest percentage mean price variation for fresh fish was recorded in the North Central while the lowest mean increase was recorded in the South East and South South Zones.

The highest increase in price of dry fish was recorded in Bayelsa State (24%) while Gombe, Kano and Imo (20%) were among the highest increase. Meanwhile, Cross River State recorded the lowest increase in price by 2% while price of dry fish in Ogun State remains unchanged. The highest percentage mean price variation for dry fish was recorded in the North West Zone while the lowest mean increase was recorded in the North Central, South West and South-South Zones. The highest increase in price of frozen fish was recorded in Ondo (30%), Sokoto (23%) and Lagos (22%) while Osun State recorded the lowest increase in price with 4%. The highest

percentage mean price variation for frozen fish was recorded in the North West Zone while the lowest mean increase was recorded in the South East Zone.

8.5 Prices of Dressed Chicken, Egg and Paddy Rice

Comparison of market prices of dressed chicken, egg and paddy rice were made for January 2019/2020 and July 2019/2020. As compared to the previous year, price of chicken did show a significant increase across the 36 States and FCT (Table 8.25 – Table 8.30).

The highest increase in price of dressed chicken was recorded in Lagos State (27%) and Ondo State (25%) while Rivers State recorded the lowest increase in price with 3%. The percentage mean price variation for dressed chicken was recorded in the South West Zone while the lowest mean increase was recorded in the South South Zone.

The highest increase in egg prices was observed in Kwara (25%). Prices remained stable in Anambra and Ekiti States where no change was recorded, while Edo State recorded the lowest increase in price of 5%. The highest percentage mean price variation for egg was recorded in the North West while the lowest mean increase was recorded in the North East Zone.

The highest increase in price of paddy rice was recorded in Taraba (38%), Bauchi (35%) and Plateau (36%) States. The highest percentage mean price variation for paddy rice was recorded in the North Central and North East Zones while the lowest mean increase was recorded in the South West Zone.

Table 8.1: Commodity Prices (N/Kg) in North East Zone

States	Table 8.1: Commodity Prices (N/KG) in North East Zone																					
	Sorghum						Millet						Maize						Milled Rice					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2019	2020	%Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change
Borno	99	95	-4.0	107	158	47.7	112	105	-6.3	112	185	65.2	97	95	-2.1	108	180	66.7	235	270	14.9	234	420	79.5
Yobe	96	84	-12.5	103	155	50.5	111	103	-7.2	110	183	66.4	96	93	-3.1	103	160	55.3	231	260	12.6	228	385	68.9
Bauchi	89	88	-1.1	93	150	61.3	103	98	-4.9	111	170	53.2	93	91.3	-1.8	103	185	79.6	223	257.4	15.4	227	400	76.2
Gombe	99	91	-8.1	103	152	47.6	100	95	-5.0	108	165	52.8	94	90	-4.3	103	180	74.8	228	265	16.2	230	388	68.7
Adamawa	96	93	-3.1	101	155	53.5	111	105	-5.4	111	184	65.8	96	95	-1.0	104	200	92.3	224	268	19.6	227	420	85.0
Z. Mean	95.8	90.2	-5.8	101.4	154	51.9	107.4	101.2	-5.8	110.4	177.4	60.7	95.2	92.9	-2.5	104.2	181	73.7	228	264.1	15.7	229.2	403	75.7

States	Table 8.2: Commodity Prices (N/KG) in North West Zone																					
	Sorghum						Millet						Maize						Milled Rice					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2019	2020	%Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change
Jigawa	89	80	-10.1	93	148	59.1	100	96	-4.0	111	172	55.0	87	86	-1.1	93	175	88.2	215	255	18.6	213	391	83.6
Zamfara	90	86	-4.4	95	150	57.9	112	105	-6.3	111	170	53.2	88	85	-3.4	99	177	78.8	234	257	9.8	231	398	72.3
Kaduna	90	88	-2.2	93	150	61.3	111	109	-1.8	120	185	54.2	86	84	-2.3	89	165	85.4	225	250	11.1	221	395	78.7
Katsina	92	89	-3.3	96	153	59.4	109	105	-3.7	109	182	67.0	89	85	-4.5	94	173	84.0	231	260	12.6	226	398	76.1
Kebbi	96	92	-4.2	99	155	56.6	111	108	-2.7	116	187	61.2	90	88	-2.2	101	185	83.2	219	247	12.8	215	385	79.1
Sokoto	99	94	-5.1	103	152	47.1	110	107	-2.7	113	175	54.9	90	88	-2.2	100	185	85.0	232	260	12.1	231	400	73.2
Kano	93	91	-2.2	98	153	56.1	111	109	-1.8	118	183	55.1	93	90	-3.2	103	180	74.8	211	247	17.1	208	385	85.1
Z. Mean	92.7	88.6	-4.5	96.7	151.5	56.6	109.1	105.6	-3.3	114	179.1	57.1	89	86.6	-2.7	97	177.1	82.6	223.9	253.7	13.3	220.7	393.1	78.1

States	Table 8.3: Commodity Prices (N/KG) in North Central Zone																							
	Sorghum						Millet						Maize						Milled Rice					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change
Benue	120	120	0.0	111	180	62.2	132	130	-1.5	142	210	47.9	101	100	-0.1	111	207	86.5	NA	NA	NA	NA	NA	NA
Kogi	125	123	-1.6	116	180	55.2	132	129	-2.3	134	200	49.3	100	97	-3.0	111	205	84.7	233	274	17.6	225	408	81.3
Nassarawa	116	114	-1.7	107	175	63.6	119	115	-3.4	132	195	47.7	93	90	-3.2	99	180	81.8	215	253	17.7	219	398	81.7
FCT	117	115	-1.7	111	178	60.4	125	122	-2.4	126	195	54.8	103	101	-1.9	113	210	85.8	239	281	17.6	235	426	81.3
Plateau	109	106	-2.8	105	172	63.8	120	118	-1.7	116	183	57.8	92	90	-2.2	99	183	84.8	242	275	13.6	219	400	82.6
Niger	120	116	-3.3	110	167	51.8	118	114	-3.4	119	185	55.5	89	85	-4.5	99	178.5	80.3	217	253	16.6	216	394	82.4
Kwara	123	123	0.0	111	178	60.4	123	120	-2.4	115	172	49.6	99	98	-1.0	109	203	86.2	227	270	18.9	223	405	81.6
Taraba	95	90	-5.3	103	155	50.5	106	100	-5.7	110	175	59.1	93	91	-2.2	99	176	77.8	234	270	15.4	232	390	68.1
Z. Mean	115.6	113.4	-1.9	109.3	173.1	58.5	121.9	118.5	-2.8	124.3	189.4	52.4	96.3	94.6	-2.3	105	192.8	83.6	229.6	268	16.7	224.1	403	79.8

States	Table 8.4: Commodity Prices (N/KG) in South West Zone																							
	Sorghum						Millet						Maize						Milled Rice					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change
Osun	NA	NA	-	NA	NA	-	NA	NA	-	NA	NA	-	102	101	-1.0	113	208	84.1	272	300	10.3	272	450	65.4
Oyo	NA	NA	-	NA	NA	-	142	138	-2.8	136	200	47.1	97	96	-1.0	111	205.5	85.1	260	291	11.9	257	441	71.6
Ekiti	NA	NA	-	NA	NA	-	NA	NA	-	NA	NA	-	103	101	-1.9	111	207	86.5	316	346	9.5	298	461	54.7
Ondo	NA	NA	-	NA	NA	-	NA	NA	-	NA	NA	-	NA	NA	-	NA	NA	-	313	344	9.9	289	458	58.5
Ogun	135	138	2.2	118	192	62.9	165	160	-3.0	160	232.5	45.3	106	105	-0.9	119	215	80.7	318	350	10.1	270	458	69.6
Lagos	NA	NA	-	NA	NA	-	170	165	-2.9	164	235	43.3	118	116	-1.7	125	222	77.6	312	348	11.5	308	470	52.6
Z. Mean	135	138	2.2	118	192	62.9	159	154.3	-2.9	153.3	222.5	45.1	105	104	-1.3	115.8	211.5	82.6	299	329.8	10.5	282.3	456.3	61.6

States	Table 8.5: Commodity Prices (N/Kg) in South East Zone																						
	Sorghum						Millet						Maize						Milled Rice					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change
Enugu	NA	NA	-	NA	NA	-	NA	NA	-	NA	NA	-	119	116	-2.5	126	225	78.6	NA	NA	-	NA	NA	-
Ebonyi	137	143	4.4	126	220	74.6	NA	NA	-	NA	NA	-	NA	NA	-	NA	NA	-	281	312	11.0	274	458	67.2
Abia	NA	NA	-	NA	NA	-	NA	NA	-	NA	NA	-	113	110	-2.7	123	225	82.9	313	348	11.2	306	468	52.9
Imo	134	141	5.2	121	215	77.7	184	180	-2.2	185	256	38.4	115	112	-2.6	124	223	79.8	312	348	11.5	304	465	53.0
Anambra	NA	NA	-	NA	NA	-	NA	NA	-	NA	NA	-	115	113	-1.7	120	218	81.7	289	320	10.7	282	460	63.1
Z. Mean	135.5	142	4.8	123.5	218	76.1	184	180	-2.2	185	256	38.4	116	112.8	-2.4	123.3	222.8	80.7	298.8	332	11.1	291.5	462.8	58.7

States	Table 8.6: Commodity Prices (N/Kg) in South South Zone																						
	Sorghum						Millet						Maize						Milled Rice					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change
Akwa Ibom	NA	NA	-	NA	NA	-	NA	NA	-	NA	NA	-	120	117	-2.5	130	226	73.8	330	370	12.1	334	482	44.2
Bayelsa	NA	NA	-	NA	NA	-	NA	NA	-	NA	NA	-	124	120	-3.2	134	235	75.4	332	375	13.0	338	484	43.2
Cross River	NA	NA	-	NA	NA	-	NA	NA	-	NA	NA	-	120	118	-1.7	128	225	75.8	324	368	13.6	332	480	44.6
Delta	NA	NA	-	NA	NA	-	NA	NA	-	NA	NA	-	117	114	-2.6	122	213	74.6	320	353	10.3	316	478	51.3
Edo	138	143	3.6	129	220	70.5	150	147	-2	150	225	50	115	113	-1.7	119	210	76.5	315	350	11.1	309	470	52.1
Rivers	NA	NA	-	NA	NA	-	NA	NA	-	NA	NA	-	128	125	-2.3	136	235	72.8	336	378	12.5	342	487	42.4
Z. Mean	138	143	3.6	129	220	70.5	150	147	-2	150	225	50	120.7	117.8	-2.3	128.2	224	74.8	326.2	365.7	12.1	328.5	480.1	46.1

States	Table 8.7: Commodity Prices (N/Kg) in North East Zone																							
	Cowpea (Brown)						Ginger						Groundnut (Shelled)						Benniseed					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change
Borno	285	248	-13.2	299	312	4.3	NA	NA	-	NA	NA	-	326	280	-14.1	366	383	4.6	350	400	14.3	380	433	13.9
Yobe	278	217	-21.9	280	297	6.1	NA	NA	-	NA	NA	-	278	270	-2.9	298	318	6.7	300	350	16.7	350	402	14.9
Bauchi	264	210	-20.5	252	283	12.3	275.5	306.6	11.3	275	325.2	18.2	305	222.0	-27.2	293	330.3	12.7	300	335.6	11.9	317	370	16.7
Gombe	277	234	-15.5	267	288	7.9	NA	NA	-	NA	NA	-	347	298	-14.1	371	390	5.1	290	330	13.8	340	393	15.6
Adamawa	258	238	-7.8	245	280	14.3	250	280	12	393	420	6.9	214	200	-6.5	230	255.1	10.9	NA	NA	-	NA	NA	-
Z. Mean	272.4	229	-15.8	268.6	292	8.7	262.7	293.3	11.6	334	372.6	11.6	294	254.0	-13.6	311.6	335.3	7.6	310	353.9	14.2	346.8	400	15.2

States	Table 8.8: Commodity Prices (N/Kg) in North West Zone																							
	Cowpea (Brown)						Ginger						Groundnut (Shelled)						Benniseed					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change
Jigawa	278	235	-15.5	250	280	12	NA	NA	-	NA	NA	-	253	235	-7.1	260	282	8.5	276	310	12.3	305	343	12.5
Zamfara	253	212	-16.2	231	250	8.2	NA	NA	-	NA	NA	-	234	215	-8.1	259	279	7.7	NA	NA	-	NA	NA	-
Kaduna	267	234	-12.4	249	280	12.4	226.1	253.5	12.1	255	306.3	20.1	243	223	-8.2	282	305	8.2	304	343	12.8	360	410	13.9
Katsina	274	230	-16.1	246	270	9.8	NA	NA	-	NA	NA	-	287	267	-7.0	338	358	5.9	312	352	12.8	345	400	15.9
Kebbi	256	223	-12.9	247	275	11.3	NA	NA	-	NA	NA	-	253	233	-7.9	274	300	9.5	285	325	14.0	295	336	13.9
Sokoto	294	242	-17.7	271	289	6.6	NA	NA	-	NA	NA	-	246	225	-8.5	270	297	10	NA	NA	-	NA	NA	-
Kano	272	240	-11.8	262	283	8.0	NA	NA	-	NA	NA	-	235	215	-8.5	273	300	9.9	315	358	13.7	341	402	17.9
Z. Mean	270.6	230.9	-14.7	250.9	275.3	9.7	226.1	253.5	12.1	255	306.3	20.1	250.1	230.4	-7.9	279.4	303	8.4	298.4	337.6	13.1	329.2	378.2	14.9

States	Table 8.9: Commodity Prices (N/Kg) in North Central Zone																					
	Cowpea (Brown)						Ginger						Groundnut (Shelled)						Benniseed					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change
Benue	341	295	-13.5	337	360	6.8	NA	NA	-	NA	NA	-	287	270	-5.9	299	325	8.7	346	378	9.2	348	383	10.1
Kogi	345	290	-15.9	331	350	5.7	NA	NA	-	NA	NA	-	298	278	-6.7	358	379.2	5.9	350	375	7.1	355	380	7.0
Nassarawa	324	274	-15.4	300	315	5.0	NA	NA	-	NA	NA	-	261	240	-8.0	305	320	4.9	327	360	10.1	332	360	8.4
FCT	334	288	-13.8	317	330	4.1	NA	NA	-	NA	NA	-	289	267	-7.7	325	354.3	9.0	363	388.9	7.1	367	400	9.0
Plateau	270	230	-14.8	274	300	9.5	350	386.4	10.4	293	334.8	14.3	257	235	-8.6	261	280	7.3	326	350	7.4	327	358	9.5
Niger	288	245	-14.9	319	322.5	1.1	NA	NA	-	NA	NA	-	262	240	-8.4	280	298.3	6.5	317	341.7	7.8	324	357.2	10.3
Kwara	333	285	-14.4	295	320	8.5	NA	NA	-	NA	NA	-	330	300	-9.1	333	361.3	8.5	NA	NA	-	NA	NA	-
Taraba	293	250	-14.7	280	296	5.7	NA	NA	-	NA	NA	-	225	205	-8.9	270	295	9.3	282	312	10.6	325	355	9.2
Z. Mean	316	269.6	-14.7	306.6	323.3	5.7	350	386.4	10.4	293	334.8	14.3	276.1	254.3	-7.9	303.9	326.6	7.5	330.1	357.9	8.4	339.7	370.5	9.1

States	Table 8.10: Commodity Prices (N/Kg) in South West Zone																					
	Cowpea (Brown)						Ginger						Groundnut (Shelled)						Benniseed					
				July Prices			January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change
Osun	342	290	-15.2	329	351.3	6.8	NA	NA	-	NA	NA	-	317	300	-5.4	322	348	8.1	NA	NA	-	NA	NA	-
Oyo	336	286	-14.9	326	347	6.4	NA	NA	-	NA	NA	-	332	310	-6.6	337	360	6.8	NA	NA	-	NA	NA	-
Ekiti	357	298	-16.5	345	375	8.7	NA	NA	-	NA	NA	-	338	312	-7.7	342	368	7.6	NA	NA	-	NA	NA	-
Ondo	360	298	-17.2	349	377	8.0	NA	NA	-	NA	NA	-	NA	NA	-	NA	NA		NA	NA	-	NA	NA	-
Ogun	338	287	-15.1	321	343	6.9	NA	NA	-	NA	NA	-	342	318	-7.0	345	372	7.8	NA	NA	-	NA	NA	-
Lagos	329	278	-15.5	309	330	6.8	355	456.7	28.6	366	382.5	4.5	339	307	-9.4	347	370	6.6	NA	NA	-	NA	NA	-
Z. Mean	343.7	289.5	-15.8	329.8	353.9	7.3	355	456.7	28.6	366	382.5	4.5	334	309	-7.3	338.6	363.6	7.4	NA	NA	-	NA	NA	-

States	Table 8.11: Commodity Prices (N/Kg) in South East Zone																							
	Cowpea (Brown)						Ginger						Groundnut (Shelled)						Benniseed					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change
Enugu	379	307	-19.0	375	400	6.7	NA	NA	-	NA	NA	-	NA	NA	-	NA	NA	-	NA	NA	-	NA	NA	-
Ebonyi	396	318	-19.7	388	405	4.4	350	400	14.3	375	410	9.3	335	312	-6.9	342	367	7.3	425	437.5	2.9	450	468.8	4.2
Abia	382	310	-18.8	371	397	7.0	NA	NA	-	NA	NA	-	330	305	-7.6	335	362	8.1	NA	NA	-	NA	NA	-
Imo	375	306	-18.4	364	389	6.9	300	342	14	310	345	11.3	330	303	-8.2	340	363	6.8	NA	NA	-	NA	NA	-
Anambra	377	307	-18.6	369	393	6.5	300	345	15	350	380	8.6	331	310	-6.3	336	362.5	7.9	NA	NA	-	NA	NA	-
Z. Mean	381.8	309.6	-18.9	373.4	396.8	6.3	316.7	362.3	14.4	345	378.3	9.7	332	308	-7.2	338.3	363.6	7.5	425	437.5	2.9	450	468.8	4.2

States	Table 8.12: Commodity Prices (N/Kg) in South South Zone																							
	Cowpea (Brown)						Ginger						Groundnut (Shelled)						Benniseed					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change
Akwa Ibom	390	318	-18.5	377	404	7.0	NA	NA	-	NA	NA	-	380	350	-7.9	420	450	7.1	NA	NA	-	NA	NA	-
Bayelsa	397	328	-17.4	388	408	5.0	NA	NA	-	NA	NA	-	363	335	-7.7	350	384	9.7	NA	NA	-	NA	NA	-
Cross River	380	310	-18.4	373	395	5.9	NA	NA	-	NA	NA	-	412	384	-6.8	414	440	6.3	NA	NA	-	NA	NA	-
Delta	354	296	-16.4	360	390	8.3	NA	NA	-	NA	NA	-	335	310	-7.5	352	378	7.4	NA	NA	-	NA	NA	-
Edo	360	297	-17.6	360	393	9.0	300	345	15	350	390	11.43	340	310	-8.8	360	385	6.9	NA	NA	-	NA	NA	-
Rivers	390	325	-16.7	385	405	5.2	320	370	15.63	350	398.5	13.86	363	337	-7.2	373	400	7.2	NA	NA	-	NA	NA	-
Z. Mean	378.5	312.3	-17.5	373.8	398.9	6.7	310	357.5	15.3	350	394.3	12.6	365.5	337.7	-7.6	378.2	406.2	7.4	-	-	-	-	-	-

States	Table 8.13: Commodity Prices (N/Kg) in North East Zone																	
	Beef						Goat Meat						Mutton					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2019	2020	%Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change
Borno	1200	1300	8.3	1200	1400	16.7	1200	1200	0	1200	1300	8.3	1400	1400	0	1350	1400	3.7
Yobe	1200	1200	0.0	1200	1200	0	1100	1100	0	1100	1200	9.1	950	1000	5.3	1000	1100	10
Bauchi	1300	1300	0.0	1250	1300	4	1200	1100	-8.3	1100	1200	9.1	750	850	13.3	830	950	14.5
Gombe	1200	1200	0.0	1200	1300	8.3	1000	1100	10	850	1100	29.4	1000	1100	10	1000	1100	10
Adamawa	NA	NA	-	NA	NA	-	NA	NA	-	NA	NA	-	NA	NA	-	NA	NA	-
Z. Mean	1225	1250	2.0	1213	1300	7.2	1125	1125	0	1063	1200	12.9	1025	1088	6.1	1045	1138	8.9

States	Table 8.14: Commodity Prices (N/Kg) in North West Zone																	
	Beef						Goat Meat						Mutton					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2019	2020	%Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change
Jigawa	1200	1200	0	1200	1300	8.3	500	750	50	600	800	33.3	600	800	33.3	900	1000	11.1
Zamfara	1200	1200	0	1200	1300	8.3	1200	1200	0	1200	1200	0	1200	1200	0	1200	1200	0
Kaduna	1200	1200	0	1200	1300	8.3	1100	1200	9.1	1200	1200	0	1100	1200	9.1	1100	1200	9.1
Katsina	1200	1200	0	1200	1300	8.3	1200	1200	0	1200	1200	0	1200	1200	0	1200	1200	0
Kebbi	1200	1200	0	1200	1300	8.3	1200	1200	0	1200	1200	0	1300	1300	0	1300	1300	0
Sokoto	1200	1200	0	1200	1200	0	600	800	33.3	600	900	50	750	900	20	750	900	20
Kano	1200	1200	0	1200	1300	8.3	1100	1100	0	1100	1200	9.1	1000	1200	20	1100	1200	9.1
Z. Mean	1200	1200	0	1200	-	6.9	1066.7	1116.7	4.7	1083.3	1150	6.2	-	-	6.9	1108.3	1166.7	5.3

States	Table 8.15: Commodity Prices (N/Kg) in North Central Zone																	
	Beef						Goat Meat						Mutton					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change
Benue	NA	NA	-	NA	NA	-	NA	NA	-	NA	NA	-	NA	NA	-	NA	NA	-
Kogi	1100	1100	0	1200	1300	8.3	900	1000	11.1	1000	1100	10	NA	NA	-	NA	NA	-
Nassarawa	1300	1300	0	1300	1300	0	1200	1200	0	1200	1200	0	NA	NA	-	NA	NA	-
FCT	1400	1400	0	1400	1500	7.1	1400	1400	0	1400	1400	0	1400	1400	0	1400	1400	0
Plateau	1200	1300	8.3	1200	1400	16.7	1000	1200	20	1100	1200	9.1	1100	1200	9.1	1200	1300	8.3
Niger	800	1000	25	950	1100	15.8	850	850	0	950	1000	5.3	850	1000	17.6	750	1000	33.3
Kwara	800	1100	37.5	800	1200	50	600	800	33.3	700	800	14.3	NA	NA	-	NA	NA	-
Taraba	1200	1200	0	1200	1200	0	NA	NA	-	NA	NA	-	900	1000	11.1	900	1100	22.2
Z. Mean	-	1200	7.7	1150	-	11.8	991.7	1075	8.4	1058.3	1116.7	5.5	1063	1150	8.2	1063	1200	12.9

States	Table 8.16: Commodity Prices (N/Kg) in South West Zone																	
	Beef						Goat Meat						Mutton					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change
Osun	1200	1500	25	1600	1600	0	NA	NA	-	NA	NA	-	NA	NA	-	NA	NA	-
Oyo	1200	1600	33.3	1450	1600	10.3	1400	1600	14.3	1500	1600	6.7	NA	NA	-	NA	NA	-
Ekiti	1400	1400	0	1400	1400	0	1700	1700	0	1700	1700	0	NA	NA	-	NA	NA	-
Ondo	1400	1500	7.1	1400	1600	14.3	1300	1300	0	1100	1500	36.4	NA	NA	-	NA	NA	-
Ogun	1200	1350	12.5	1400	1400	0	1200	1350	12.5	1200	1400	16.7	NA	NA	-	NA	NA	-
Lagos	1000	1200	20	1000	1300	30	1100	1200	9.1	1100	1200	9.1	NA	NA	-	NA	NA	-
Z. Mean	1233.3	1425	15.5	1375	1483.3	7.9	1340	1430	6.7	1320	1480	12.1	-	-	-	-	-	-

States	Table 8.17: Commodity Prices (N/Kg) in South East Zone																	
	Beef						Goat Meat						Mutton					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2019	2020	%Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change
Enugu	1700	1700	0	1700	1700	0	1200	1200	0	1400	1400	0	NA	NA	-	NA	NA	-
Ebonyi	1500	1500	0	1500	1500	0	1400	1400	0	1400	1400	0	1500	1500	0	1500	1500	0
Abia	1600	1600	0	1800	1800	0	1500	1500	0	1600	1600	0	NA	NA	-	NA	NA	-
Imo	1600	1600	0	1700	1700	0	1600	1600	0	1600	1600	0	NA	NA	-	NA	NA	-
Anambra	1200	1200	0	1300	1400	7.7	1000	1200	20	1200	1300	8.3	1100	1200	9.1	1100	1200	9.1
Zonal Mean	-	-	0	-	-	1	1453.2	1486.7	2.3	1536.5	1553.3	1.1	-	-	2.2	1539.7	1573.3	2.2

States	Table 8.18: Commodity Prices (N/Kg) in South South Zone																	
	Beef						Goat Meat						Mutton					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	%Change
Akwa Ibom	1400	1400	0	1400	1500	7.1	1400	1400	0	1350	1600	18.5	NA	NA	-	NA	NA	-
Bayelsa	1200	1200	0	1200	1300	8.3	1100	1200	9.1	1100	1200	9.1	NA	NA	-	NA	NA	-
Cross River	1200	1500	25	1600	1600	0	1200	1500	25	1300	1500	15.4	NA	NA	-	NA	NA	-
Delta	NA	NA	-	NA	NA	-	1750	1800	2.9	1750	1900	8.6	NA	NA	-	NA	NA	-
Edo	1200	1300	8.3	1500	1500	0	1500	1500	0	1500	1800	20	1700	1800	5.9	1800	1800	0
Rivers	1400	1700	21.43	2250	2100	-6.7	2150	2200	2.3	2250	2300	2.2	NA	NA		NA	NA	
Zonal Mean	1280	1360	10.9	1590	1480	0.6	1516.7	1600	5.5	1541.7	1716.7	11.4	1700	1800	5.9	1800	1800	0

States	Table 8.19: Commodity Prices (N/Kg) in North East Zone																	
	Fresh Fish						Dry Fish						Frozen Fish					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change
Borno	1000	1000	0	1000	1200	20	1500	1500	0	1400	1550	10.7	1000	1000	0	1000	1200	20
Yobe	NA	NA	-	NA	NA	-	900	1100	22.2	NA	NA	-	NA	NA	-	NA	NA	-
Bauchi	500	550	10	600	650	8.3	750	800	6.7	950	1000	5.3	550	650	18.2	560	600	7.1
Gombe	900	900	0	1000	1000	0	800	1000	25	1000	1200	20	500	600	20	700	800	14.3
Adamawa	NA	NA	-	NA	NA	-	NA	NA	-	NA	NA	-	NA	NA	-	NA	NA	-
Zonal Mean	800	816.7	2.1	866.7	950	9.6	987.5	1100	11.4	1116.7	1250	11.9	683.3	750	9.8	753.3	866.7	15

States	Table 8.20: Commodity Prices (N/Kg) in North West Zone																	
	Fresh Fish						Dry Fish						Frozen Fish					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change
Jigawa	NA	NA	-	NA	NA	-	NA	NA	-	NA	NA	-	NA	NA	-	NA	NA	-
Zamfara	700	700	0	700	800	14.3	600	700	16.7	900	1000	11.1	700	750	7.1	700	800	14.3
Kaduna	750	800	6.7	750	900	20	NA	NA	-	NA	NA	-	NA	NA	-	NA	NA	-
Katsina	NA	NA	-	NA	NA	-	NA	NA	-	NA	NA	-	650	700	7.7	700	800	14.3
Kebbi	800	850	6.3	900	1000	11.1	1000	1000	0	850	1000	17.6	NA	NA	-	NA	NA	-
Sokoto	600	700	16.7	750	850	13.3	1000	1050	5	1100	1200	9.1	650	750	15.4	650	800	23.1
Kano	700	800	14.3	750	850	13.3	800	900	12.5	1000	1200	20	NA	NA	-	NA	NA	-
Zonal Mean	710	770	8.5	770	880	14.3	850	912.5	7.4	962.5	1100	14.3	666.7	733.3	10	683.3	800	17.1

States	Table 8.21: Commodity Prices (N/Kg) in North Central Zone																	
	Fresh Fish						Dry Fish						Frozen Fish					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2019	2020	%Change	2019	2020	% Change	2019	2020	%Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change
Benue	NA	NA	-	NA	NA	-	NA	NA	-	NA	NA	-	NA	NA	-	NA	NA	-
Kogi	700	850	21.4	800	1000	25	1100	1300	18.2	1500	1750	16.7	NA	NA	-	NA	NA	-
Nassarawa	700	800	14.3	750	900	20	1600	1650	3.1	1700	1800	5.9	NA	NA	-	NA	NA	-
FCT	850	800	-5.9	800	900	12.5	1625	1600	-1.5	1450	1500	3.4	800	850	6.25	850	900	5.9
Plateau	600	700	16.7	750	900	20	2000	2100	5	2050	2200	7.3	750	800	6.7	800	900	12.5
Niger	650	650	0	840.2	950	13.1	1230	1300	5.7	1300	1400	7.7	NA	NA	-	NA	NA	-
Kwara	750	850	13.3	750	900	20	1450	1500	3.4	1500	1600	6.7	700	800	14.3	750	900	20
Taraba	1500	1500	0	1500	1600	6.7	NA	NA	-	NA	NA	-	1500	1600	6.7	1500	1600	6.7
Z. Mean	821.4	878.6	7	884.3	1021.4	15.5	1500.8	1575	4.9	1583.3	1708.3	7.9	938	1013	8	975	1075	10.3

States	Table 8.22: Commodity Prices (N/Kg) in South West Zone																	
	Fresh Fish						Dry Fish (SMOKED)						Frozen Fish					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change
Osun	NA	NA	-	NA	NA	-	NA	NA	-	NA	NA	-	900	1000	11.1	1250	1300	4
Oyo	850	950	11.8	1000	1000	0	1785	1800	0.8	1900	2000	5.3	850	900	5.9	750	900	20
Ekiti	750	800	6.7	750	900	20	1200	1300	8.3	1300	1500	15.4	800	1000	25	850	1000	17.6
Ondo	800	900	12.5	750	850	13.3	1200	1300	8.3	1300	1500	15.4	500	600	20	500	650	30
Ogun	750	800	6.7	655	800	22.1	1700	1700	0	1700	1700	0	1150	1200	4.3	1250	1350	8
Lagos	670	700	4.5	670	800	19.4	NA	NA	-	NA	NA	-	900	1000	11.1	900	1100	22.2
Z. Mean	764	830	8.6	765	870	13.7	1471.3	1525	3.7	1550	1675	8.1	850	950	11.8	916.7	1050	14.5

States	Table 8. 23: Commodity Prices (N/Kg) in South East Zone																	
	Fresh Fish						Dry Fish						Frozen Fish					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change
Enugu	600	700	16.7	650	750	15.4	700	800	14.3	750	850	13.3	600	700	16.7	650	750	15.4
Ebonyi	1400	1500	7.1	1500	1600	6.7	1500	1800	20	1800	2000	11.1	1400	1500	7.1	1400	1500	7.1
Abia	NA	NA	-	NA	NA	-	2300	2300	0	2300	2500	8.7	950	1000	5.3	1000	1200	20
Imo	1100	1200	9.1	1150	1250	8.7	1400	1600	14.3	1500	1800	20	1100	1200	9.1	1150	1300	13
Anambra	1300	1400	7.7	1350	1500	11.1	1500	1500	0	1650	1700	3	550	700	27.3	600	700	16.7
Z. Mean	1284	1364	6.2	1334	1424	6.8	1569.8	1670	6.4	1669.8	1811.7	8.5	1103.2	1186.7	7.6	1137	1245	9.5

States	Table 8.24: Commodity Prices (N/Kg) in South South Zone																	
	Fresh Fish						Dry Fish						Frozen Fish					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	h2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change
Akwa Ibom	1400	1500	7.1	1400	1500	7.1	1400	1450	3.6	1450	1500	3.4	700	850	21.4	800	900	12.5
Bayelsa	650	750	15.4	690	800	15.9	550	600	9.1	525	650	23.8	644	700	8.8	690	800	15.9
Cross River	1400	1450	3.6	1350	1400	3.7	1650	1850	12.1	2050	2100	2.4	NA	NA	-	NA	NA	-
Delta	1450	1500	3.4	1450	1600	10.3	1550	1625	4.8	1550	1725	11.3	645	725	12.4	660	800	21.2
Edo	700	750	7.1	750	800	6.7	1500	1600	6.7	1500	1650	10	1000	1000	0	1200	1300	8.3
Rivers	2250	2300	2.2	2400	2500	4.2	2350	2400	2.1	2300	2500	8.7	1600	1700	6.3	1600	1800	12.5
Z. Mean	1308.3	1375	5.1	1340	1433.3	7	1500	1588	5.8	1563	1688	8	918	995	8.4	990	1120	13.1

States	Table 8.25: Commodity Prices (N/Kg) in North East Zone																	
	Chicken						Egg						Paddy Rice					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change
Borno	1200	1300	8.3	1300	1500	15.4	1000	1000	0	1000	1100	10	NA	NA	-	NA	NA	-
Yobe	1100	1200	9.1	1300	1400	7.7	1000	1100	10	1100	1200	9.1	NA	NA	-	NA	NA	-
Bauchi	1200	1250	4.2	1200	1300	8.3	950	950	0	900	950	5.6	150	160	6.7	165	225	36.4
Gombe	900	1000	11.1	1000	1150	15	900	900	0	850	900	5.9	160	170	6.3	180	230	27.8
Adamawa	NA	NA	-	NA	NA	-	NA	NA	-	NA	NA	-	NA	NA	-	NA	NA	-
Z. Mean	1100	1188	8	1200	1338	11.5	962.5	987.5	2.6	962.5	1038	7.8	155	165	6.5	172.5	227.5	31.9

States	Table 8.26: Commodity Prices (N/Kg) in North West Zone																	
	Chicken						Egg						Paddy Rice					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change
Jigawa	NA	NA	-	NA	NA	-	NA	NA	-	NA	NA	-	NA	NA	-	NA	NA	-
Zamfara	1300	1300	0	1200	1300	8.3	800	1000	25	1000	1100	10	NA	NA	-	NA	NA	-
Kaduna	1500	1600	6.7	1500	1700	13.3	NA	NA	-	900	1000	11.1	NA	NA	-	NA	NA	-
Katsina	1400	1400	0	1500	1600	6.7	1000	1000	0	1000	1200	20	NA	NA	-	NA	NA	-
Kebbi	1200	1200	0	1150	1250	8.7	1000	1000	0	1000	1200	20	130	145	11.5	155	190	22.6
Sokoto	1200	1250	4.2	1200	1300	8.3	850	900	5.9	900	1000	11.1	NA	NA	-	165.1	210	27.2
Kano	1300	1500	15.4	1450	1600	10.3	1050	950	-9.5	900	1100	22.2	129	140	8.9	153.3	185	20.7
Z. Mean	1316.7	1375	4.4	1333.3	1458.3	9.4	940	970	3.2	950	1100	15.8	129.3	143	10.3	157.8	195	23.6

States	Table 8.27: Commodity Prices (N/Kg) in North Central Zone																	
	Chicken						Egg						Paddy Rice					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change
Benue	NA	NA	-	NA	NA	-	NA	NA	-	NA	NA	-	144	160	11.3	170.3	230	35
Kogi	1150	1250	8.7	1200	1350	12.5	900	1000	11.1	1000	1100	10	NA	NA	-	NA	NA	-
Nassarawa	1100	1250	13.6	1250	1400	12	1000	1000	0	1000	1100	10	138	148	7	160.3	205	27.9
FCT	1000	1200	20	1050	1200	14.3	800	1000	25	950	1100	15.8	156	169	8.1	183	235.7	28.8
Plateau	850	1000	17.6	900	1100	22.2	800	850	6.3	900	950	5.6	140	155	10.7	169.4	230.5	36.1
Niger	1100	1200	9.1	1100	1250	13.6	NA	NA	-	NA	NA	-	135.6	145	7	154.2	190.5	23.6
Kwara	800	900	12.5	850	1000	17.6	900	1000	11.1	800	1000	25	141.2	156	10.5	162.1	220	35.7
Taraba	1200	1350	12.5	1200	1400	16.7	NA	NA	-	NA	NA	-	155	160	3.2	160	220	37.5
Z. Mean	1028.6	1164.3	13.2	1078.6	1042.9	15.2	880	970	10.2	930	1050	12.9	144.3	156.1	8.2	165.6	218.8	32.1

States	Table 8.28: Commodity Prices (N/Kg) in South West Zone																	
	Chicken (DRESSED)						Egg						Paddy Rice					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change
Osun	NA	NA	-	NA	NA	-	1000	1100	10	1000	1100	10	NA	NA	-	NA	NA	-
Oyo	1150	1250	8.7	1400	1500	7.1	900	1000	11.1	1000	1100	10	190	203	6.8	216	255.5	18.3
Ekiti	1000	1300	30	1200	1400	16.7	900	1000	11.1	1000	1000	0	186	195	4.8	210	248	18.1
Ondo	1000	1250	25	1200	1500	25	800	900	12.5	850	950	11.8	NA	NA	-	NA	NA	-
Ogun	1050	1200	14.3	1100	1350	22.7	NA	NA	-	NA	NA	-	190	200	5.4	208	250	20.2
Lagos	1000	1250	25	1100	1400	27.3	1000	1000	0	1000	1100	10	NA	NA	-	NA	NA	-
Z. Mean	1040	1250	20.2	1200	1430	19.2	920	1000	8.7	970	1050	8.2	189	199.3	5.7	211.3	251.2	18.8

States	Table 8.29: Commodity Prices (N/Kg) in Southeast Zone																	
	Chicken						Egg						Paddy Rice					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change
Enugu	NA	NA	-	NA	NA	-	900	1000	11.1	1000	1100	10	NA	NA	-	NA	NA	-
Ebonyi	1400	1500	7.1	1400	1500	7.1	1000	1100	10	1000	1100	10	148	160	8.1	175	224	28
Abia	1300	1400	7.7	1500	1600	6.7	1000	1100	10	1000	1100	10	184	195	6	200	248	24
Imo	1300	1600	23.1	1500	1650	10	900	1000	11.1	1000	1100	10	183	193	5.5	202	250	23.8
Anambra	1200	1400	16.7	1400	1650	17.9	850	900	5.9	900	900	0	180	189	5	200	250	25
Z. Mean	1300	1475	13.5	1450	1600	10.3	930	1020	9.7	980	1060	8.2	173.8	184.3	6	194.3	243	25.1

States	Table 8.30: Commodity Prices (N/Kg) in South South Zone																	
	Chicken						Egg						Paddy Rice					
	January Prices			July Prices			January Prices			July Prices			January Prices			July Prices		
	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change	2019	2020	% Change
Akwa Ibom	1300	1500	15.4	1400	1600	14.3	900	1000	11.1	900	1000	11.1	190	202	6.3	207	260	25.6
Bayelsa	1450	1700	17.2	1650	1750	6.1	1000	1000	0	1000	1100	10	NA	NA	-	NA	NA	-
Cross River	1250	1450	16	1400	1600	14.3	1000	1100	10	1000	1100	10	192	204	6.0	210	260	23.8
Delta	1350	1450	7.4	1450	1550	6.9	1000	1000	0	1000	1100	10	NA	NA	-	NA	NA	-
Edo	1400	1500	7.1	1500	1600	6.7	900	1000	11.1	950	1000	5.3	184	193	4.9	198	250	26.3
Rivers	1550	1750	12.9	1750	1800	2.9	1000	1100	10	1100	1200	9.1	NA	NA	-	NA	NA	-
Z. Mean	1383.3	1558.3	12.7	1525	1650	8.2	966.7	1033.3	6.9	991.7	1083.3	9.2	188.7	200	5.7	205	256.7	25.2

9.0. FARMERS' ASSESSMENT OF CROPPING PERFORMANCE

This section reports on the demographic characteristics of the farmers and result of findings during the farmers' interview. The information described in this section include; sex of respondents; mean age of farmers, household size and composition, Area of land cultivated, farmers' production pattern, crop production, livestock production, fish farming, crop pest and diseases, input access and use etc.

9.1. Sample Design

A three-stage cluster random sampling was employed to select farmers for the survey. In the first stage cluster, two ADP Zones was randomly selected in each of the State. At the second stage, two LGAs was randomly selected in each of the selected ADP zones. Whilst at the third stage, one community was selected in each LGA in a State, making a total of four communities per State. In each selected community, five farmers were randomly selected making a total of twenty farmers per State. However, some States have less than twenty farmers; Thus, the survey covered a total of seven hundred and twenty-five (725) farmers.

A major limitation to the sampling and sample size was availability of funds, time constraints and human resources. The sample size used was representative of the States and agro ecological zones.

9.2. Data Collection, Processing and Analysis

Data was collected through face-to-face interviews with farmers, using an open data kit (ODK) application connected to NAERLS server.

Data cleaning and analysis was done using IBM SPSS Statistics Version 26 and Microsoft Excel 2019 for generation of charts. Data was checked and cleaned by eliminating some bias and outliers.

Descriptive statistics are expressed as means for continuous variables and percentages for categorical variables.

9.3. Demographic Profile of the Sample Population

i. Gender and Age of Farmers

A total number of farmers (N=725) were surveyed. When disaggregated by sex more males (76%) than females (24%) participated in the survey. The findings reported that male farmers dominate farming at a ratio 3:1 compared to their female counterparts (Figure 9.1).

Majority of the respondents (78%) were between 30 – 60 years of age. The ages of farmers were between 17 years and 75 years with a mean age of 48.72±12.817. That is 49 years for male farmers and 47 years for female farmers as shown in Figure 9.2. The proportion of farmers

declined as the age category increased from 60 and above. Of the 725 farmers surveyed, at least 30% were between the ages of 20 – 40 years as against 46% in 2019, implying that there is drop in youth participation in agriculture in 2020.

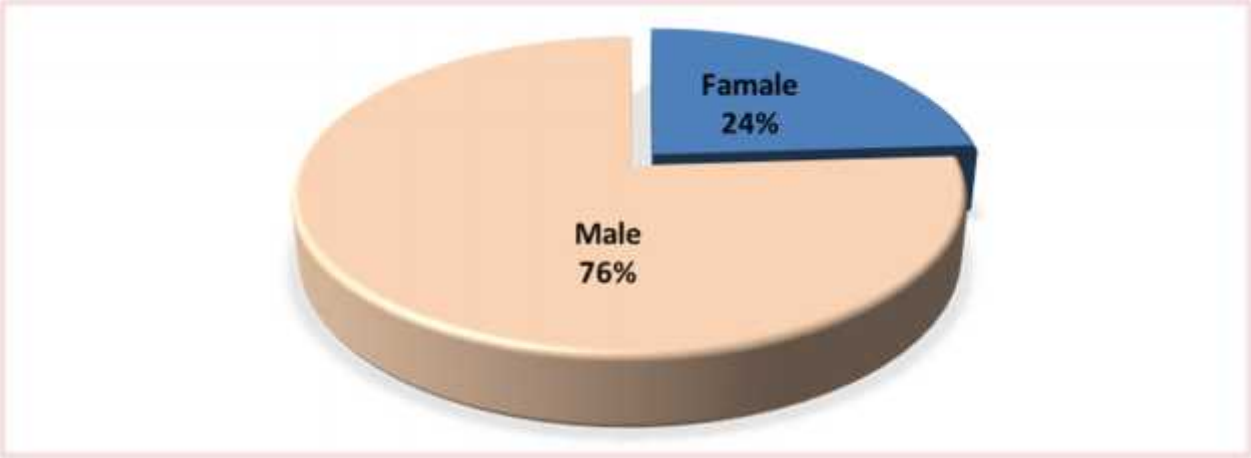


Figure 9.1: Proportion of Farmers by Gender

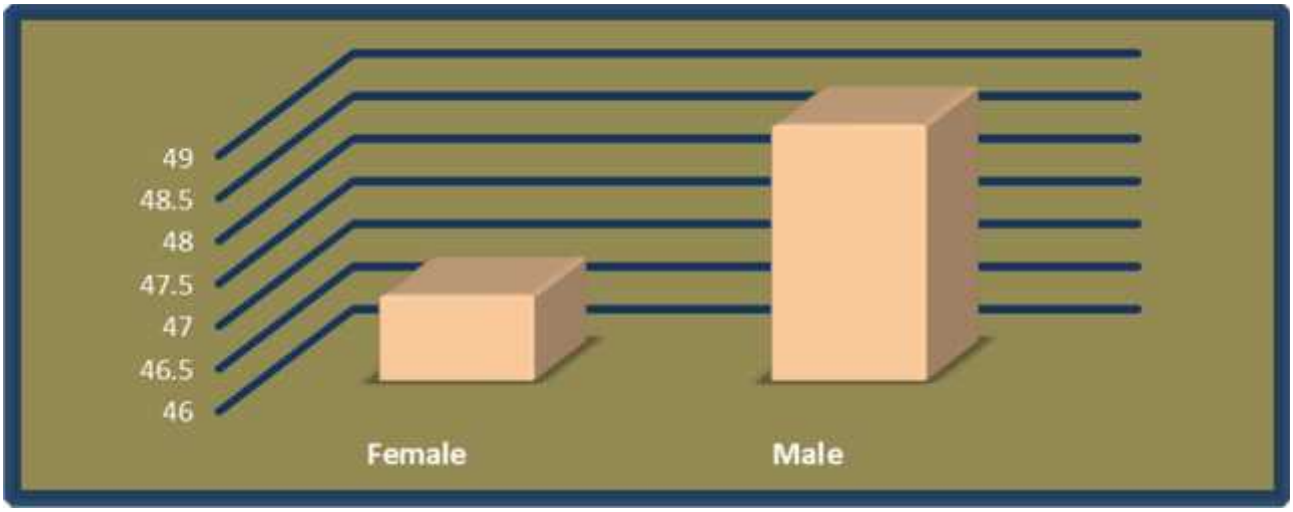


Figure 9.2: Mean Age of Farmers

ii. Household Size and Composition

The average households' size ranged from 6 – 19. In the Northern Zones it was between 9 and 19 while it is between 6 and 11 in the Southern zones and parts of North Central Zone (Figure 9.3).

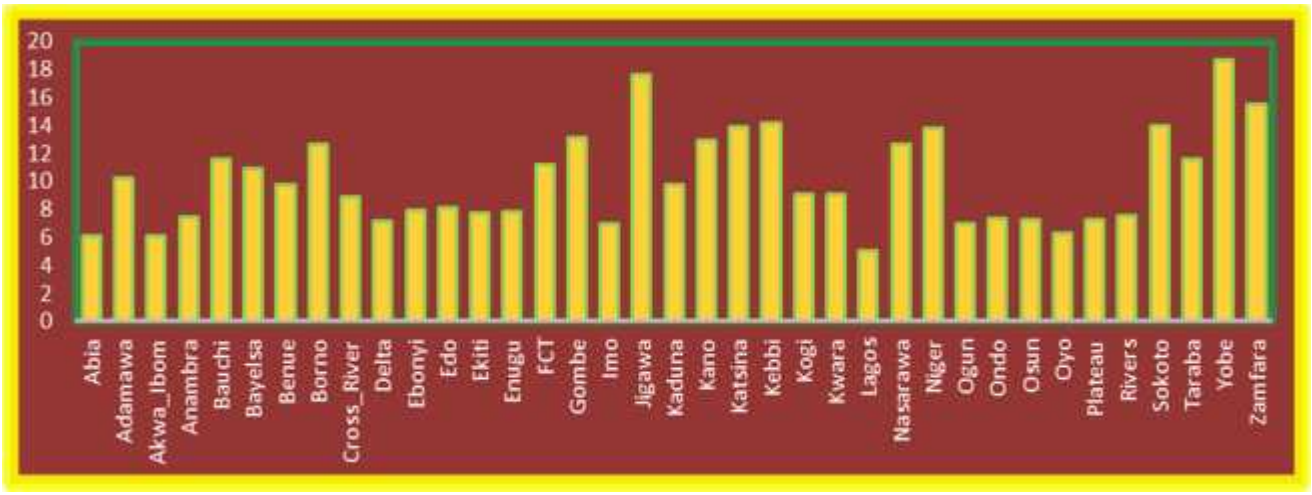


Figure 9.3: Mean Household Size

iii. Area of Land Cultivated

Most farmers utilize 0.75 – 2.5 hectares for cultivation of crops in 2020. The median hectarage for maize farming was 3 hectares. During data collection, some farmers reported that they practice inter-cropping i.e. by planting different crops in the same piece of land. Most farmers attested that they increased their farm size in the 2020 cropping season. The closure of the nation's borders, rise in food prices and growing population are some of the factors that may have contributed to this rise in cultivated area.

iv. Farmers' Production Pattern

In this survey, all the respondents were farmers at smallholder level and farming formed the major source of livelihood. Majority of the farmers had grown crops during the 2020 farming season. Most of the respondents (91%) were involved in producing crops, livestock (31%), poultry (18%) and fishing (5%) (Figure 9.4).

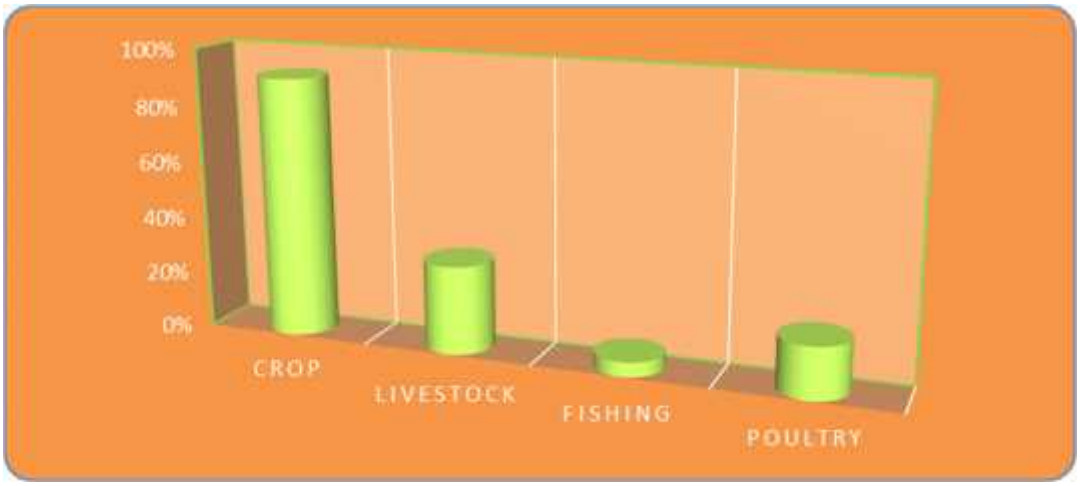


Figure 9.4: Farmers Production Pattern in 2020

Crop Production

COVID-19 mitigation measures negatively impacted the production of crops in the current cropping season. As a result, the percentage of farmers who produced crops in 2020 decreased by 5% compared to 2019. On the average, farmers cultivated 2 or 3 staple crops across the States. Maize, rice, sorghum, yam, groundnuts, cassava and cowpea were the major crops grown by farmers. The proportion of farmers producing legumes (cowpea and groundnut) was generally not as high as those producing cereals. The production of legumes among farmers varied from State to State.

Livestock Production

Less than a third (23%) of farmers interviewed kept goat, followed by sheep (12%) and cattle (11%). The Table below (Figure 9.5) shows the type of livestock being owned by farmers. Most farmers' livestock are kept under low cost and low input forms of management.

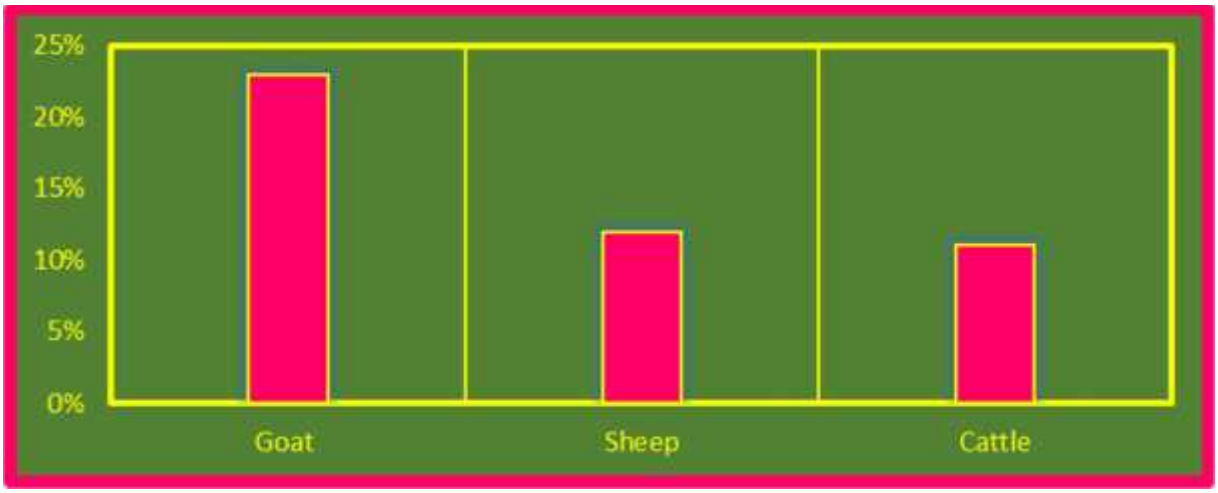


Figure 9.5: Livestock Type Produced by Farmers in Nigeria in 2020

Fish Farming

About 7% of the respondents from the Southern Zone indicated that they were involved in fish farming. This figure was mainly reported in Abia, Anambra, Bayelsa, Imo, and Lagos States. About 1% reported raising fish in plastic containers and the main fish species produced was catfish, while the main source of fingerlings was from specialized private fish farms.

9.4. Crop and Livestock Pest and Diseases

Farmers (62%) reported infestation of pest and diseases on crops while 14% reported infestation of livestock (Figure 9.6). However, crop pest and disease level were reported to be light to moderate impacts on maize in the current year with principal problem being armyworm in all the 36 States and FCT. Mole cricket and rodents were reported to attack rice farms in all the States with level of severity of the infestation been light. Other insect infestation reported include

nematode attack on yam with the level of severity being light. Bio-Pesticides were used by farmers to arrest the armyworm infestation on maize.
There were reported cases of new castle disease (NCD) of poultry and PestePetits Ruminants (PPR) of Goat/Sheep by farmers in 2020. Vaccination was reported as a measure undertaken to control the spread of livestock diseases.

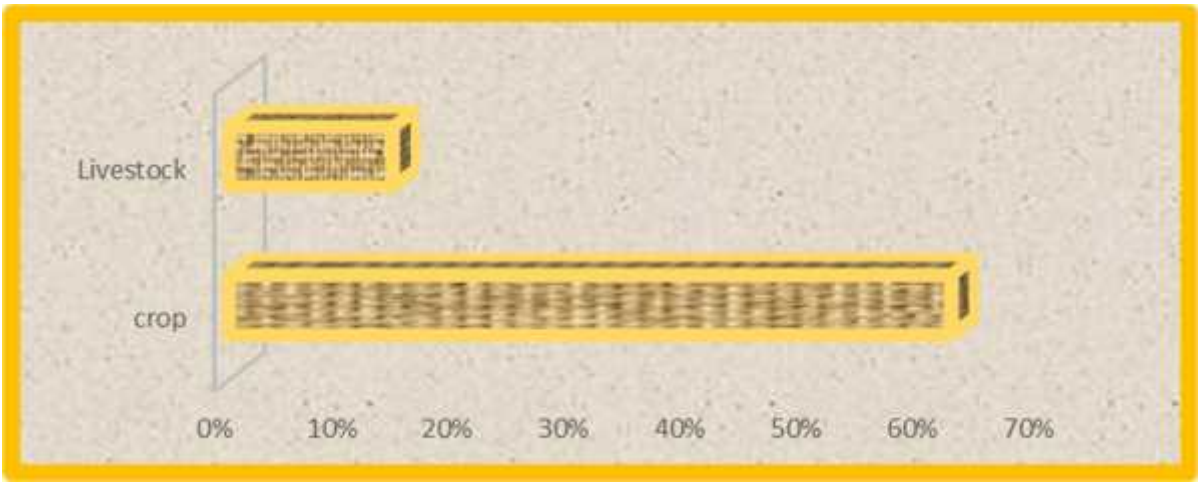


Figure 9.6: Reported Cases of Infestation on Crop and Livestock Produced by Farmers

9.5. Input Access and Use by Farmers

Farmers in the 36 States and FCT highlighted that access and purchase of farm inputs were from the open market in the current cropping season. Farm input such as inorganic fertilizer was scarcely used by majority of farmers on crops cultivated. Farmers attested that fertilizer was accessible but expensive and not affordable. Farmers did not receive fertilizer from the government in the year 2020. However, fewer farmers received seeds from the government. About 63% of the farmers interviewed purchase fertilizer at exorbitant prices, while 37% of the farmers did not purchase because they could not afford it. Also, no farm equipment such as tractors, Sprayers, Agro-processors were procured or made available to farmers by the Government.

The procurement and distribution of farm inputs for the year 2020 is yet to commence in all the States at the time of the visit. The problems associated with the procurement of production inputs and usage were attributed to COVID-19 mitigation measures to curb the spread of the virus. It was reported that farm inputs were only available at the open market but not affordable to most farmers.

Farmers are being denied high crop yields because they cannot afford sufficient fertilizer to replenish the nutrient-depleted soil. Therefore, holding back a significant increase in production output. For those farmers that use fertilizer, the fertilizer use per hectare is far lower than the recommended quantity, thereby resulting in poor crop yield.

Improved Seed

Majority of farmers (69%) were aware of improved seeds but only 41% used them. 13% indicated that they bought seed in open container while 28% bought seal labelled improved seed. It can be seen that use of improved seed was low, probably because most farmers rely on saved seed from previous harvest.

Fertilizer

The use of inorganic fertilizer in Nigeria is relatively low and varies between States. The quantity of fertilizer both organic and inorganic applied on crops by farmers is insufficient thereby affecting productivity. Although 63% of farmers sampled used inorganic fertilizer, the application per hectare is low. Slightly more than half (57%) of the farmers reported that they used NPK, while some (37%) used Urea. Only a few farmers (1%) reported the use of Single Super Phosphate (SSP) fertilizer. This fertilizer application rate by farmers is not impressive. This may not be far from paucity of fund and high price of the commodity. About 40% of the farmers also reported that they use organic fertilizers (animal manure). The application of organic fertilizers was also minimal as only small amounts of organic fertilizer were used by individual farmers. The organic fertilizers used among farmers are mostly cow and small ruminant dung (31%) and poultry manure (17%).

Pesticides: Herbicides and Insecticides

As farmers have little tolerance for pest infestation, they rely heavily on the use of pesticides. Majority (87%) of farmers applied herbicides and insecticides to their farms. More of the farmers (55%) use herbicides while only 32% use insecticides. Among cereal farmers, herbicides are the predominant pesticides used to control weeds

Generally, insecticides application was low in all the six agro-ecological zones of the country. The application of fungicides was not reported.

Sources of Input

Only a small fraction (5%) of farmers received Government input in 2020, a 6% drop over that of 2019. This is an indication that there was delay in the procurement and distribution of inputs in the country in the current season due to the lockdown imposed in most States to curb the spread of the corona virus. Only 2% of the farmers reported that they received input from Government in 2019 and 2020.

Only 19% of the respondents were able to use tractor for cultivation in 2020. Of this number, 2% hired Government tractors, a decline from 2019, while 14% hired tractor from private owners. Only 3% hired from Cooperative Associations. No farmer reported sourcing or receiving credit from Government in 2020. However, a small fraction (4%) had access to credit from farmers' cooperatives.

Government, at all levels, should facilitate availability of farm inputs at affordable rates to farmers in order to boost agricultural productivity, food security and enhanced livelihoods.

Farmers access their seed from formal and informal channels that provide them with a range of varieties of varying quality. The quantities of seeds purchased varied between 10kg and 50kg. The average cost of purchased seeds was about N2500. Seeds were mainly obtained from the local market (32%), government (22%), agro-dealers (21%) and seed companies (8%). Other sources were research institutes (6%), cooperatives (6%), and farmers' own stock (5%) (Figure 9.10).

Figure 9.10: Farmers Sources of Seed in 2020

Farmers purchased fertilizers at an average cost of N10,000 per 50kg bag from the open market. NPK and urea fertilizers remain the common inorganic fertilizers used. The average cost of NPK and urea in the season ranged from N9,500 to N12,000 per bag.

Farm inputs sales were primarily purchased from the local markets within and outside communities. Inputs such as manure were obtained from cattle rearers, farmers' own stock and the market. One litre of herbicides and insecticides cost between N1,500 and N2,000 in such markets.

9.6. Production Output

The effect of the COVID-19 is expected to negatively impact crop production in the current season. When compared to the previous year, decrease in output are expected in 2020 in all the area of agricultural production. Some farmers said they anticipated a decrease in production output as a result of the crisis' impact on agriculture. However, about 47% of farmers were optimistic and expect higher output than 2019 which is a sharp drop from the proportion of farmers in 2019 (70%). 32% of the farmers expect their production to be below that of 2019;

while about 11% expect their output to be the same. About 10% were not sure of their expected output in the current season (Figure 9.11).

Figure 9.11: Farmers Expected Output for 2020 Season

9.7. Sources and Types of Extension Services

The proportion of farmers who receive extension advice is still low in Nigeria. In the survey across 36 States and FCT, 52% of sampled farmers accessed extension services in 2020.

There was an average of 487 farmers receiving extension advisory services representing 67% of the total number of respondents. The following are the proportions receiving extension advice from various sources: Extension Agents (52%), Radio (23%) and Friends/Co-farmers (19%) (Figure 9.12).

A major constraint is disproportionate ratio of extension agents to farmers. The ratio of national extension agent to farmers is 1:3500, compared with the recommended 1:800 (FAO).

Most of the farmers that had access to Extension Agents were farmers that had access to the services of the Agricultural Development Programme (ADPs) in their respective Zones. This result does not reflect the true picture of farmers' access to agricultural information in Nigeria since it excludes the thousands not being powered by the ADPs. Hence, Radio and Co-farmers still constitute the most common source of agricultural information for Nigerian farmers.

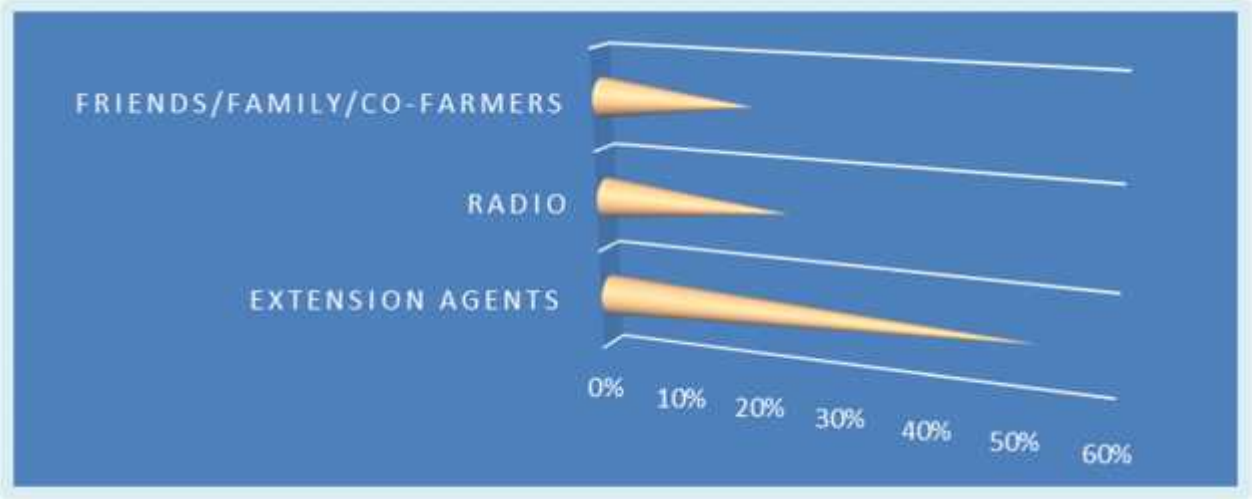


Figure 9.12: Farmers Sources of Agricultural Information in 2020

9.8. Constraints to Electronic Media Use by Farmers

Electricity supply and timing are the major constraints affecting electronic media use by farmers. Some farmers indicated that their communities do not have electricity and those that have reported erratic supply. Most of these farmers rely on batteries to power their radios (Figure 9.13).

Figure 9.13: Constraints Affecting Farmers Use of Electronic Media in 2020

9.9. Food Consumption Pattern and Household Dietary Diversity

Food consumption was assessed over a 24-hour reference period to estimate food and nutrient intake adequacy. Further to estimate usual consumption intake, an extended reference period of seven days recall was used. Also, dietary diversity, a well-recognized and an important dimension of diet quality was adopted using Household Dietary Diversity. Household dietary diversity (HDD), defined as the number of unique foods consumed by household members over a given period, has been validated to be a useful approach for measuring household food access.

The analysis showed that although all starchy food and vegetables constituted the main foods consumed by the farmers, a number of meals with varying ingredients were consumed based on the two food groups which are mostly complemented by oil and fat.

The food group most frequently consumed by households was starchy staples, especially cereals. Findings from the survey indicated that 93% and 96% of the households consumed vegetables and cereals respectively in the last 24 hours and were consumed at least 6 to 7 days a week in all Northern States except Benue, Gombe, Niger and Plateau States. Households consumed cereals or starchy roots and tubers every day of the week, except in the Southern Zones, where cereals were consumed at an average of 4 days a week and tubers, 3 days a week. The consumption of legumes, including cowpea, soybean and groundnut was low. On the average, households consumed legumes 2 to 3 times a week across all the States.

In general, the consumption of egg and dairy products (38% and 48%) were very low. On the average, households consumed egg once a week across all the States. The number of households that consumed meat or fish during the 24 hours preceding the survey were about 64% and 69%. There were few households that could afford fish up to four times a week. However, the number of households were less as frequency increased. As for meat, the highest frequency was two times a week. It is apparent that fish consumption dominated meat.

The result of the survey showed that all starch staple and vegetables were consumed by majority households. Eggs and all dairy were consumed poorly; this pattern was similar in all States.
About a third (32%) of the households had a Household Dietary Diversity Score (HDDS) greater than 6 food groups per day. 23% had ≥ 5 food groups, 28% had ≥ 4 food groups, while 17% had ≥ 3 food groups (Figure 9.14).

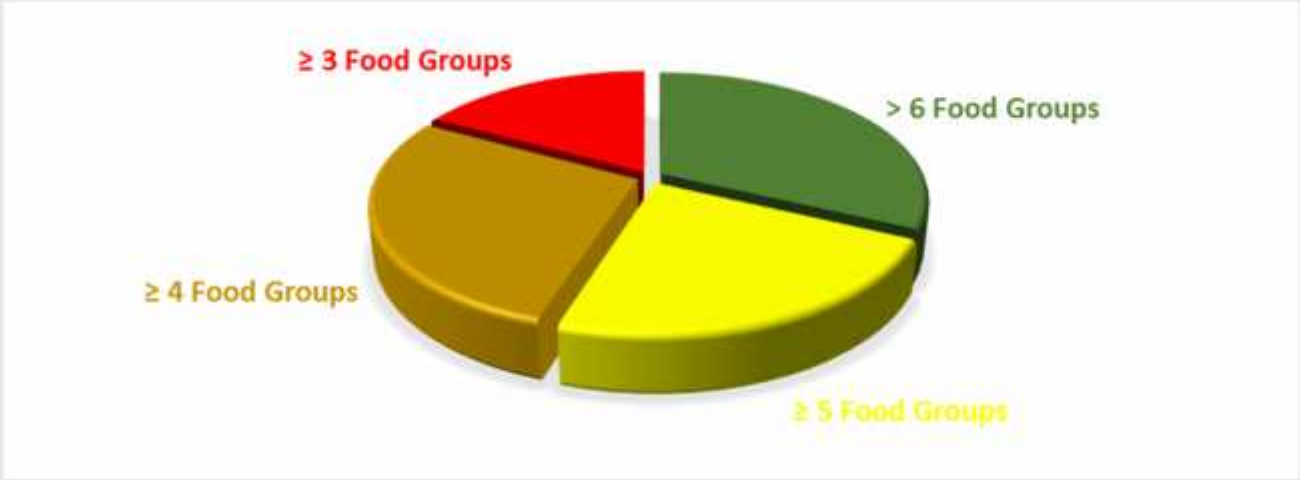


Figure 9.14: Food Groups Consumed by Households

Focus needs to be given not only to increasing the production of and access to food but also its consumption, ensuring that the poor have access to adequate quantities of safe, good quality food for a nutritionally adequate diet. This includes not only energy, protein and fats but also micro-nutrients so necessary for normal growth and development.

10.0. LAND AREA & PRODUCTION ESTIMATES FOR MAJOR CROPS

10.1. Rice

Rice is a major staple in Nigeria and it is grown in all agro-ecological zones of the country. The estimated crop area for rice in 2020 was 4,195,070Ha, which represented an increase of about 1.66% over the 4,126,670Ha cultivated in 2019. The surge in the price of rice triggered increase in the land area cultivated by farmers in 2020. However, due to the flood that affected some States like Jigawa, Kebbi, Kano, Sokoto and Kaduna, the national rice output is estimated to decrease by 3%, that is, from 8,435,610 tons in 2019 to about 8,171,750 tons in 2020. About 76% of the States recorded decrease in the output of rice. The estimated national average yield of rice was 2.04 tons per hectare in 2019 and 1.95 tons per hectare in 2020. The decrease in rice yield is attributed to low hybrid seed uptake amongst the smallholder farmers.

Table 10.1: Land Area and Production Output for Rice

State	Land Area ('000) Ha			Production ('000) MT			Yield (Ton/Ha)	
	2019	2020	% Change	2019	2020	% Change	2019	2020
Abia	42.41	48.30	13.88	57.31	56.77	-0.95	1.35	1.18
Adamawa	163.22	164.02	0.49	280.57	274.65	-2.11	1.72	1.67
Akwa Ibom	10.01	10.78	7.67	24.21	23.32	-3.67	2.42	2.16
Anambra	36.88	40.31	9.29	94.95	94.68	-0.29	2.57	2.35
Bauchi	141.18	146.05	3.45	245.65	232.44	-5.38	1.74	1.59
Bayelsa	50.31	49.69	-1.24	96.69	95.95	-0.77	1.92	1.93
Benue	274.78	271.70	-1.12	537.42	506.68	-5.72	1.96	1.86
Borno	115.97	116.81	0.73	189.90	186.36	-1.86	1.64	1.60
C/Rivers	66.67	70.44	5.65	155.38	158.23	1.83	2.33	2.25
Delta	26.93	27.61	2.52	48.98	50.15	2.38	1.82	1.82
Ebonyi	60.48	61.22	1.23	133.73	138.33	3.44	2.21	2.26
Edo	65.89	64.34	-2.36	141.04	142.00	0.68	2.14	2.21
Ekiti	76.91	78.88	2.56	135.17	132.55	-1.93	1.76	1.68
Enugu	45.63	50.11	9.83	91.83	92.91	1.17	2.01	1.85
FCT	200.65	200.70	0.03	414.92	404.36	-2.54	2.07	2.01
Gombe	135.51	147.43	8.80	211.49	209.84	-0.78	1.56	1.42
Imo	38.62	42.89	11.07	81.41	84.30	3.55	2.11	1.97
Jigawa	113.15	117.95	4.24	245.02	203.30	-17.03	2.17	1.72
Kaduna	159.36	159.57	0.13	349.49	347.01	-0.71	2.19	2.17
Kano	125.22	125.34	0.10	421.67	412.14	-2.26	3.37	3.29
Katsina	127.17	133.42	4.92	235.06	230.60	-1.90	1.85	1.73
Kebbi	218.17	218.12	-0.02	412.34	343.24	-16.76	1.89	1.57
Kogi	271.93	268.93	-1.10	548.24	522.38	-4.72	2.02	1.94
Kwara	201.81	202.30	0.24	433.36	419.36	-3.23	2.15	2.07
Lagos	42.71	47.88	12.10	80.02	85.16	6.43	1.87	1.78
Nasarawa	180.96	181.11	0.08	412.90	403.95	-2.17	2.28	2.23

Niger	260.19	258.06	-0.82	626.17	623.13	-0.49	2.41	2.41
Ogun	53.08	54.36	2.42	84.83	88.82	4.70	1.60	1.63
Ondo	41.72	47.54	13.95	119.73	117.95	-1.49	2.87	2.48
Osun	50.42	56.77	12.59	107.32	110.78	3.22	2.13	1.95
Oyo	58.58	61.04	4.21	104.19	103.65	-0.52	1.78	1.70
Plateau	131.85	132.39	0.41	251.93	246.23	-2.26	1.91	1.86
Rivers	43.57	42.14	-3.29	77.47	76.54	-1.20	1.78	1.82
Sokoto	82.35	83.43	1.32	165.07	162.05	-1.83	2.00	1.94
Taraba	190.64	191.85	0.64	405.72	386.54	-4.73	2.13	2.01
Yobe	99.15	98.04	-1.12	162.67	158.87	-2.34	1.64	1.62
Zamfara	122.59	123.53	0.76	251.76	246.55	-2.07	2.05	2.00
National	**4126.67**	**4195.07**	**1.66**	**8435.61**	**8171.75**	**-3.13**	**2.04**	**1.95**

10.2. Maize

The total estimated land area cultivated for maize in 2020 is about 6,048,610Ha, indicating 0.25% increase over the 6,033,410Ha cultivated in 2019. Similarly, maize production declined from 12.6 million tons in 2019 to 12.4 million tons in 2020 representing a 1.55% reduction arising from rainfall deficit (prolong dry-spell) in the South West and some parts of the South East Zones, flooding in some parts of the North East and North West Zones and inadequate fertilizer application on maize farms.

The national average yield of maize was 2.09 tons per hectare in 2019 and 2.05 tons per hectare in 2020. Decrease in maize yield is also attributed to low level cultivation of improved seeds and drought tolerant maize varieties.

Table 10.2: Land Area and Production Output for Maize

State	Land Area ('000) Ha			Production ('000) MT			Yield (Ton/Ha)	
	2019	2020	% Change	2019	2020	% Change	2019	2020
Abia	72.96	71.82	-1.56	110.08	105.01	-4.60	1.51	1.46
Adamawa	189.92	189.92	0.00	413.42	412.96	-0.11	2.18	2.17
Akwa Ibom	78.86	79.71	1.08	86.48	87.59	1.29	1.10	1.10
Anambra	54.92	53.18	-3.17	108.16	104.29	-3.57	1.97	1.96
Bauchi	298.51	295.24	-1.10	561.93	542.09	-3.53	1.88	1.84
Bayelsa	49.39	52.05	5.39	81.54	82.58	1.29	1.65	1.59
Benue	157.16	161.11	2.52	391.61	379.17	-3.18	2.49	2.35
Borno	368.36	368.17	-0.05	622.61	618.04	-0.73	1.69	1.68
C/Rivers	58.20	59.38	2.02	103.40	103.71	0.30	1.78	1.75
Delta	81.47	76.54	-6.05	154.52	154.52	0.00	1.90	2.02
Ebonyi	81.95	90.12	9.97	159.97	164.00	2.52	1.95	1.82
Edo	104.63	110.54	5.65	169.38	167.88	-0.88	1.62	1.52
Ekiti	155.14	155.81	0.43	282.32	280.46	-0.66	1.82	1.80
Enugu	93.37	96.36	3.21	173.77	175.75	1.14	1.86	1.82
FCT	197.27	197.27	0.00	448.88	448.52	-0.08	2.28	2.27
Gombe	369.48	357.20	-3.32	675.61	638.21	-5.53	1.83	1.79
Imo	50.34	53.20	5.69	127.87	128.71	0.66	2.54	2.42
Jigawa	177.92	177.92	0.00	329.41	318.28	-3.38	1.85	1.79
Kaduna	359.40	358.60	-0.22	927.16	916.62	-1.14	2.58	2.56
Kano	129.18	129.79	0.48	352.79	350.44	-0.67	2.73	2.70
Katsina	188.85	189.74	0.47	393.47	379.41	-3.57	2.08	2.00
Kebbi	173.98	174.09	0.07	353.05	345.67	-2.09	2.03	1.99
Kogi	166.08	166.27	0.12	398.59	397.73	-0.22	2.40	2.39
Kwara	164.71	166.59	1.14	329.84	325.74	-1.24	2.00	1.96
Lagos	158.58	161.93	2.12	261.88	259.95	-0.73	1.65	1.61
Nasarawa	105.85	106.04	0.19	308.47	308.08	-0.13	2.91	2.91
Niger	282.73	281.13	-0.57	721.38	698.40	-3.19	2.55	2.48
Ogun	140.97	141.65	0.48	291.63	289.90	-0.59	2.07	2.05
Ondo	154.20	154.22	0.02	386.65	385.96	-0.18	2.51	2.50
Osun	172.29	172.04	-0.14	350.41	349.50	-0.26	2.03	2.03
Oyo	158.06	162.86	3.04	311.49	305.36	-1.97	1.97	1.87
Plateau	261.76	261.31	-0.17	654.30	647.74	-1.00	2.50	2.48
Rivers	59.22	61.56	3.95	130.28	132.59	1.77	2.20	2.15
Sokoto	101.84	101.88	0.05	275.10	272.70	-0.87	2.70	2.68
Taraba	279.86	277.16	-0.96	586.72	565.50	-3.62	2.10	2.04
Yobe	146.22	146.30	0.06	296.81	294.50	-0.78	2.03	2.01
Zamfara	189.89	189.90	0.01	268.06	265.74	-0.87	1.41	1.40
National	**6033.41**	**6048.61**	**0.25**	**12598.95**	**12403.33**	**-1.55**	**2.09**	**2.05**

10.3. Sorghum

Sorghum is mostly grown in the Northern States of Nigeria with total estimated land area of 5,799,590Ha in 2020, indicating a decline in cultivated land area by -0.37% relative to 5,821,240Ha recorded in 2019. The production of sorghum in 2020 recorded a drop in the North East and North West Zones, when compared to 2019. The decrease is associated with the flood experienced in most Northern States especially in Bauchi, Zamfara, Jigawa and Kebbi States. Some States in the North Central Zone also recorded a decrease in production in which Niger State recorded a drop of 4.63% when compared to 2019. The output of sorghum of 6,590,400MT represented a decrease of about 1.17% compared with 2019 production figure. The national average yield of sorghum was 1.15 tons per hectare in 2019 and 1.14 tons per hectare in 2020.

Table 10.3: Land Area and Production Output for Sorghum

State	Land Area ('000) Ha			Production ('000) MT			Yield (Ton/Ha)	
	2019	2020	% Change	2019	2020	% Change	2019	2020
Adamawa	258.11	261.15	1.17	286.01	287.99	0.69	1.11	1.10
Bauchi	423.16	406.88	-4.00	444.11	425.92	-4.10	1.05	1.05
Benue	193.03	192.13	-0.47	198.09	195.40	-1.36	1.03	1.02
Borno	335.72	335.42	-0.09	333.07	332.89	-0.05	0.99	0.99
Enugu	12.61	13.06	3.48	13.92	13.79	-0.93	1.10	1.06
FCT	106.00	107.18	1.10	128.74	128.97	0.18	1.21	1.20
Gombe	339.06	335.88	-0.95	327.74	324.89	-0.87	0.97	0.97
Jigawa	291.72	293.72	0.68	355.25	350.88	-1.23	1.22	1.19
Kaduna	411.55	410.49	-0.26	429.19	425.92	-0.76	1.04	1.04
Kano	576.96	576.75	-0.04	584.65	584.14	-0.09	1.01	1.01
Katsina	325.24	322.61	-0.82	385.29	381.39	-1.01	1.18	1.18
Kebbi	327.81	327.34	-0.14	401.53	389.65	-2.96	1.22	1.19
Kogi	95.89	95.89	0.00	127.34	127.52	0.14	1.33	1.33
Kwara	99.67	103.44	3.64	145.15	147.32	1.50	1.46	1.42
Nasarawa	91.68	91.15	-0.58	161.38	161.55	0.11	1.76	1.77
Niger	410.65	401.81	-2.20	595.17	567.60	-4.63	1.45	1.41
Oyo	49.28	49.64	0.72	59.78	58.96	-1.37	1.21	1.19
Plateau	198.99	199.02	0.02	301.99	300.58	-0.47	1.52	1.51
Sokoto	273.81	274.83	0.37	372.57	370.47	-0.56	1.36	1.35
Taraba	312.90	311.82	-0.35	339.27	336.05	-0.95	1.08	1.08
Yobe	251.66	252.66	0.40	266.95	264.90	-0.77	1.06	1.05
Zamfara	435.74	436.72	0.22	411.05	413.62	0.62	0.94	0.95
National	**5821.24**	**5799.59**	**-0.37**	**6668.24**	**6590.40**	**-1.17**	**1.15**	**1.14**

10.4. Millet

Millet is cultivated in the Northern States of Nigeria. It has a total crop area of 1,762,290Ha in 2020, compared with 1747.80Ha in 2019. The North West zone is the major producer of this crop, followed by North Central and the North East zones. The total estimated millet output for 2020 was 1,905,430MT as compared to 1,925,080MT estimated for 2019. In 2020, the production output decrease by 1.02%. The national average yield of millet decreased from 1.10 tons per hectare in 2019 to 1.08 tons per hectare in 2020.

Table 10.4: Land Area and Production Output for Millet

State	Land Area ('000) Ha			Production ('000) MT			Yield (Ton/Ha)	
	2019	2020	% Change	2019	2020	% Change	2019	2020
Adamawa	135.04	135.26	0.17	166.60	163.66	-1.76	1.23	1.21
Bauchi	86.46	88.22	2.03	81.85	76.56	-6.46	0.95	0.87
Benue	103.63	108.82	5.01	79.10	78.67	-0.54	0.76	0.72
Borno	95.89	95.96	0.08	76.19	75.20	-1.30	0.79	0.78
FCT	53.47	50.44	-5.67	56.50	55.54	-1.70	1.06	1.10
Gombe	118.90	121.21	1.95	116.32	117.32	0.87	0.98	0.97
Jigawa	92.79	94.19	1.51	71.95	70.89	-1.48	0.78	0.75
Kaduna	63.07	63.78	1.13	50.60	51.94	2.66	0.80	0.81
Kano	50.58	52.24	3.29	88.85	87.56	-1.46	1.76	1.68
Katsina	150.06	151.92	1.24	160.96	166.45	3.41	1.07	1.10
Kebbi	80.27	80.42	0.20	74.74	73.45	-1.72	0.93	0.91
Kogi	42.71	39.74	-6.96	40.39	38.59	-4.45	0.95	0.97
Kwara	30.59	31.62	3.39	29.34	30.03	2.34	0.96	0.95
Nasarawa	22.59	24.17	7.00	32.06	31.45	-1.89	1.42	1.30
Niger	111.11	108.66	-2.20	117.40	120.21	2.40	1.06	1.11
Plateau	79.04	79.99	1.20	71.44	72.01	0.80	0.90	0.90
Sokoto	81.35	81.40	0.07	186.98	183.26	-1.99	2.30	2.25
Taraba	107.47	108.50	0.96	95.99	92.01	-4.14	0.89	0.85
Yobe	207.28	208.24	0.47	246.00	240.43	-2.26	1.19	1.15
Zamfara	35.54	37.50	5.51	81.86	80.20	-2.02	2.30	2.14
National	**1747.80**	**1762.29**	**0.83**	**1925.08**	**1905.43**	**-1.02**	**1.10**	**1.08**

10.5. Cowpea

The total land area cultivated for cowpea in 2020 was 4,973,520Ha which is an increase of 0.86% over 4,931,320Ha cultivated in 2019. The North Central Zone is the highest producer of cowpea, contributing over 29% to cowpea production in the country. The zone is closely followed by the North East, which contributed 25% of the total output. The major producing States are Niger, Taraba, Borno, Bauchi, Zamfara, Kano, Jigawa, and Gombe. National output figure for cowpea in 2020 showed an increase of 1.68% when compared to that of 2019. The national average yield of cowpea was 0.82 tons per hectare in 2019 and 0.83 tons per hectare in 2020.

Table 10.5: Land Area and Production Output for Cowpea

State	Land Area ('000) Ha			Production ('000) MT			Yield (Ton/Ha)	
	2019	2020	% Change	2019	2020	% Change	2019	2020
Abia	43.80	40.69	-7.11	43.56	43.76	0.46	0.99	1.08
Adamawa	196.71	197.68	0.50	212.24	212.98	0.35	1.08	1.08
Akwa Ibom	30.12	30.16	0.13	40.36	42.45	5.18	1.34	1.41
Anambra	111.76	119.58	7.00	63.17	64.01	1.33	0.57	0.54
Bauchi	189.14	192.59	1.82	175.13	175.59	0.26	0.93	0.91
Bayelsa	31.16	31.28	0.38	26.88	28.61	6.44	0.86	0.91
Benue	150.86	140.24	-7.04	129.87	133.46	2.76	0.86	0.95
Borno	147.02	166.96	13.56	143.94	150.65	4.66	0.98	0.90
C/Rivers	25.76	25.64	-0.47	23.95	24.00	0.21	0.93	0.94
Delta	49.17	50.57	2.84	43.54	45.24	3.90	0.89	0.89
Ebonyi	71.37	71.56	0.26	45.01	43.59	-3.16	0.63	0.61
Edo	5.54	5.69	2.63	4.47	4.91	9.84	0.81	0.86
Ekiti	164.09	164.92	0.50	92.46	92.76	0.33	0.56	0.56
Enugu	101.93	100.38	-1.52	75.41	78.80	4.49	0.74	0.79
FCT	142.23	137.97	-2.99	124.18	124.45	0.22	0.87	0.90
Gombe	314.15	317.86	1.18	299.30	294.55	-1.59	0.95	0.93
Imo	89.26	89.32	0.07	65.72	65.92	0.30	0.74	0.74
Jigawa	117.85	117.85	0.00	172.25	181.88	5.59	1.46	1.54
Kaduna	178.70	179.89	0.67	148.40	152.25	2.60	0.83	0.85
Kano	199.10	199.89	0.39	166.66	169.02	1.42	0.84	0.85
Katsina	131.08	130.96	-0.09	118.21	120.15	1.64	0.90	0.92
Kebbi	108.88	108.81	-0.06	88.32	88.92	0.68	0.81	0.82
Kogi	356.45	358.16	0.48	165.85	166.04	0.11	0.47	0.46
Kwara	217.52	226.82	4.28	202.40	202.73	0.16	0.93	0.89
Lagos	109.09	118.55	8.67	60.47	62.35	3.10	0.55	0.53
Nasarawa	52.93	59.90	13.18	81.04	85.80	5.87	1.53	1.43
Niger	119.93	119.93	0.00	113.63	124.49	9.55	0.95	1.04

Ogun	87.94	88.20	0.29	52.74	55.49	5.21	0.60	0.63
Ondo	150.00	150.14	0.10	114.83	115.06	0.20	0.77	0.77
Osun	207.56	207.81	0.12	76.87	80.82	5.14	0.37	0.39
Oyo	128.81	118.75	-7.81	100.77	101.42	0.65	0.78	0.85
Plateau	175.82	176.28	0.26	95.22	96.88	1.74	0.54	0.55
Rivers	91.03	90.88	-0.16	48.37	46.70	-3.46	0.53	0.51
Sokoto	135.65	137.24	1.17	107.47	108.85	1.28	0.79	0.79
Taraba	259.70	261.17	0.56	253.09	251.91	-0.47	0.97	0.96
Yobe	101.05	101.05	0.00	211.86	216.52	2.20	2.10	2.14
Zamfara	138.16	138.16	0.00	77.07	79.84	3.59	0.56	0.58
National	**4931.32**	**4973.52**	**0.86**	**4064.71**	**4132.83**	**1.68**	**0.82**	**0.83**

10.6. Groundnut

Groundnut is produced mainly in the Northern States of Nigeria; however, some few southern States also produce small amounts. The estimated land area cultivated for groundnut in 2020 was 3,596,420Ha which is an increase of 0.5% over 3,578,670Ha under groundnut cultivation in 2019. The major groundnut producing States in the country are Nasarawa, Niger, Kano, Jigawa, Katsina, Benue, Taraba, Gombe, Adamawa, and Zamfara. Although some of these States recorded marginal increase in the production of groundnut, the North Central Zone recorded a decline in production. The percentage increase on a national scale was of 0.52%. The national average yield of groundnut was 1.24 tons per hectare for both 2019 and 2020.

Table 10.6: Land Area and Production Output for Groundnut

State	Land Area ('000) Ha			Production ('000) MT			Yield (Ton/Ha)	
	2019	2020	% Change	2019	2020	% Change	2019	2020
Adamawa	56.26	57.49	2.19	129.52	129.70	0.14	2.30	2.26
Bauchi	403.26	400.30	-0.73	523.60	518.47	-0.98	1.30	1.30
Benue	261.56	261.65	0.04	311.63	307.80	-1.23	1.19	1.18
Borno	161.29	161.41	0.08	190.15	190.24	0.05	1.18	1.18
C/Rivers	13.44	13.46	0.20	18.03	18.38	1.95	1.34	1.37
Ebonyi	5.42	5.03	-7.17	5.37	5.21	-2.97	0.99	1.04
Edo	8.27	10.89	31.81	6.45	6.74	4.54	0.78	0.62
Enugu	5.42	5.29	-2.37	6.60	6.50	-1.58	1.22	1.23
FCT	180.67	180.59	-0.05	259.16	258.85	-0.12	1.43	1.43
Gombe	121.90	124.13	1.83	135.68	136.72	0.77	1.11	1.10
Imo	8.07	9.13	13.21	7.89	7.70	-2.35	0.98	0.84
Jigawa	152.27	152.30	0.02	240.30	240.16	-0.06	1.58	1.58
Kaduna	204.61	204.59	-0.01	276.28	280.53	1.54	1.35	1.37
Kano	216.33	216.30	-0.01	148.77	150.32	1.04	0.69	0.69
Katsina	140.51	148.30	5.54	135.07	141.93	5.08	0.96	0.96
Kebbi	149.24	149.36	0.09	189.65	189.99	0.18	1.27	1.27

Kogi	126.18	126.36	0.15	170.51	170.93	0.25	1.35	1.35
Kwara	187.82	188.63	0.43	254.05	252.76	-0.51	1.35	1.34
Nasarawa	92.72	91.49	-1.32	210.19	210.18	0.00	2.27	2.30
Niger	211.29	213.47	1.03	291.45	295.92	1.54	1.38	1.39
Ogun	18.97	19.32	1.86	38.80	42.18	8.70	2.05	2.18
Osun	37.08	38.03	2.58	51.03	56.70	11.11	1.38	1.49
Oyo	46.33	47.80	3.19	54.80	59.16	7.96	1.18	1.24
Plateau	146.44	146.87	0.30	209.12	209.07	-0.02	1.43	1.42
Sokoto	197.83	197.84	0.01	99.08	100.38	1.32	0.50	0.51
Taraba	220.06	219.87	-0.09	239.77	239.14	-0.26	1.09	1.09
Yobe	46.53	47.06	1.14	62.98	61.21	-2.80	1.35	1.30
Zamfara	158.97	159.43	0.29	175.14	177.14	1.14	1.10	1.11
National	**3578.67**	**3596.42**	**0.50**	**4441.01**	**4464.02**	**0.52**	**1.24**	**1.24**

10.7. Soybean

The estimated land area cultivated for soybean in 2020 was 1,207,740Ha, representing an increase of 5.2% over the 2019 figure of 1,148,050Ha. The North Central and North West zones are the major soybean producing areas, accounting for 82% of the production. The major producing States are Benue, Kaduna, Taraba and Niger. In 2020, soybean recorded an increase of 5.48% over the 2019 output.

Increase in the production of soybean occurred largely because farmers of cereals such as maize and sorghum shifted to legumes that require less fertilizer application. The national average yield of soybean was 0.91 tons per hectare in 2019 and 0.92 tons per hectare in 2020.

Table 10.7: Land Area and Production Output for Soybean

State	Land Area ('000) Ha			Production ('000) MT			Yield (Ton/Ha)	
	2019	2020	% Change	2019	2020	% Change	2019	2020
Adamawa	56.84	60.99	7.31	51.12	54.86	7.32	0.90	0.90
Bauchi	38.26	39.82	4.08	26.12	27.16	3.98	0.68	0.68
Benue	94.91	97.59	2.83	239.32	240.46	0.48	2.52	2.46
Borno	22.30	24.92	11.73	16.19	17.57	8.55	0.73	0.71
Ekiti	26.17	26.28	0.43	9.05	9.02	-0.33	0.35	0.34
FCT	62.52	64.43	3.06	35.43	36.49	2.99	0.57	0.57
Gombe	68.09	69.46	2.02	57.96	58.24	0.49	0.85	0.84
Jigawa	42.16	43.16	2.37	34.22	34.80	1.69	0.81	0.81
Kaduna	101.93	102.43	0.49	98.98	100.50	1.54	0.97	0.98
Kano	65.93	65.98	0.08	69.92	72.99	4.40	1.06	1.11
Katsina	50.80	58.22	14.60	37.39	38.56	3.13	0.74	0.66
Kebbi	44.85	45.83	2.18	38.56	40.65	5.42	0.86	0.89
Kogi	57.71	58.30	1.02	41.94	46.46	10.78	0.73	0.80
Kwara	60.96	65.79	7.92	55.26	60.24	9.02	0.91	0.92
Nasarawa	36.31	36.73	1.16	27.34	28.48	4.17	0.75	0.78
Niger	103.10	126.84	23.03	57.19	66.54	16.35	0.55	0.52
Oyo	40.05	44.76	11.76	26.06	30.27	16.14	0.65	0.68
Plateau	47.67	48.84	2.45	26.67	29.49	10.57	0.56	0.60
Sokoto	35.86	39.68	10.65	27.06	32.28	19.30	0.75	0.81
Taraba	55.12	54.98	-0.26	60.19	68.08	13.10	1.09	1.24
Zamfara	36.51	32.71	-10.42	12.54	12.78	1.91	0.34	0.39
National	**1148.05**	**1207.74**	**5.20**	**1048.51**	**1105.95**	**5.48**	**0.91**	**0.92**

10.8. Beniseed

Beniseed is an important oil crop cultivated in many parts of Nigeria. It has an estimated land area of 820,630Ha in 2020, which is an increase of 4.86% over the 782,590Ha recorded in 2019. It is more readily cultivated in the North Central, North West and North East Zones. A marginal increase of 6.06% was recorded for output of beniseed, from 523,430MT in 2019 to 555,160MT in 2020. The national average yield of beniseed was 0.67 tons per hectare in 2019 and 0.68 tons per hectare in 2020.

Table 10.8: Land Area and Production Output for Beniseed

State	Land Area ('000) Ha			Production ('000) MT			Yield (Ton/Ha)	
	2019	2020	% Change	2019	2020	% Change	2019	2020
Adamawa	16.65	16.91	1.55	17.28	17.97	3.97	1.04	1.06
Bauchi	21.39	22.48	5.11	10.15	10.65	4.96	0.47	0.47
Benue	106.14	114.73	8.10	83.89	93.24	11.15	0.79	0.81
Borno	17.13	17.57	2.56	7.88	8.48	7.65	0.46	0.48
FCT	83.95	86.52	3.07	56.11	57.78	2.97	0.67	0.67
Gombe	34.54	37.82	9.49	10.31	10.72	3.93	0.30	0.28
Jigawa	16.12	16.78	4.08	19.32	20.69	7.07	1.20	1.23
Kano	20.36	21.36	4.91	20.97	21.87	4.29	1.03	1.02
Katsina	53.41	54.11	1.32	16.82	17.84	6.06	0.31	0.33
Kebbi	10.05	10.35	3.03	7.23	7.39	2.26	0.72	0.71
Kogi	90.87	91.44	0.63	67.76	71.08	4.89	0.75	0.78
Kwara	29.02	34.23	17.95	16.24	15.51	-4.47	0.56	0.45
Nasarawa	57.90	58.61	1.23	54.54	59.40	8.91	0.94	1.01
Niger	58.54	68.47	16.96	23.38	25.94	10.95	0.40	0.38
Plateau	57.59	60.65	5.31	34.20	37.33	9.15	0.59	0.62
Sokoto	28.36	29.15	2.77	15.11	15.75	4.21	0.53	0.54
Taraba	59.20	59.74	0.90	47.36	50.39	6.41	0.80	0.84
Yobe	13.92	14.12	1.44	3.20	3.20	0.00	0.23	0.23
Zamfara	7.45	5.58	-25.07	11.68	9.93	-14.98	1.57	1.78
National	**782.59**	**820.63**	**4.86**	**523.43**	**555.16**	**6.06**	**0.67**	**0.68**

10.9. Yam

Yam is an important tuber crop in Nigeria. The crop is found in all the agro ecological zones of the country. The total land area cultivated for yam in 2020 was 7,128,100Ha which is an increase of 5.16% over the 2019 figure of 6,778.080Ha. The major producing zone is the North Central, followed by the South East Zone and North West Zone. The output of yam in the country had recorded a marginal increase of 6.48% when compared with 2019 output. The national average yield of yam increased from 7.81 tons per hectare in 2019 to 7.90 tons per hectare in 2020.

Table 10.9: Land Area and Production Output for Yam

State	Land Area ('000) Ha			Production ('000) MT			Yield (Ton/Ha)	
	2019	2020	% Change	2019	2020	% Change	2019	2020
Abia	264.55	309.10	16.84	2012.59	2152.67	6.96	7.61	6.96
Akwa Ibom	287.27	287.19	-0.03	2.20	2.24	1.85	0.01	0.01
Anambra	159.33	159.45	0.08	878.11	877.79	-0.04	5.51	5.51
Bayelsa	312.26	330.10	5.71	1269.29	1295.48	2.06	4.06	3.92
Benue	192.94	195.88	1.52	2653.42	2881.66	8.60	13.75	14.71
C/Rivers	341.88	351.64	2.86	2945.42	3019.06	2.50	8.62	8.59
Delta	164.24	165.75	0.92	1351.87	1382.62	2.27	8.23	8.34
Ebonyi	281.55	288.73	2.55	2729.99	2888.37	5.80	9.70	10.00
Edo	378.01	465.10	23.04	2839.45	3408.27	20.03	7.51	7.33
Ekiti	197.76	197.99	0.12	1464.60	1472.55	0.54	7.41	7.44
Enugu	240.92	246.33	2.25	2952.06	3099.66	5.00	12.25	12.58
FCT	712.31	734.11	3.06	2934.43	3022.46	3.00	4.12	4.12
Imo	85.00	90.42	6.38	299.50	304.07	1.53	3.52	3.36
Kaduna	199.81	201.85	1.02	2655.63	2756.54	3.80	13.29	13.66
Kebbi	151.75	156.86	3.37	950.26	973.35	2.43	6.26	6.21
Kogi	191.17	191.24	0.04	1532.98	1673.84	9.19	8.02	8.75
Kwara	257.06	255.52	-0.60	2267.99	2196.14	-3.17	8.82	8.59
Nasarawa	202.23	202.23	0.00	3829.87	3829.54	-0.01	18.94	18.94
Niger	311.67	353.00	13.26	4546.65	5651.49	24.30	14.59	16.01
Ogun	168.81	169.86	0.62	1030.61	1028.14	-0.24	6.11	6.05
Ondo	205.32	226.19	10.17	1970.61	2167.68	10.00	9.60	9.58
Osun	202.37	209.77	3.65	2104.17	2421.27	15.07	10.40	11.54
Oyo	285.54	329.19	15.29	1429.14	1572.05	10.00	5.01	4.78
Plateau	135.65	136.17	0.38	1755.26	1732.66	-1.29	12.94	12.72
Rivers	528.69	555.66	5.10	1309.22	1348.49	3.00	2.48	2.43
Taraba	319.99	318.75	-0.39	3199.59	3187.44	-0.38	10.00	10.00
National	**6778.08**	**7128.10**	**5.16**	**52914.91**	**56345.53**	**6.48**	**7.81**	**7.90**

10.10. Cassava

Cassava is also cultivated in all agro-ecological zones of Nigeria. Estimated land area in 2020 was 9,609,080Ha reflecting 1.71% decrease of 9,776,650Ha in 2019. The major producers of cassava are States in the North Central Zone, followed by the South-South and South West zones. Cassava is one of the major root crops in the country but it did not record a significant change in output in 2020. A decrease of about 2.47% in output is expected for cassava in 2020. The national average yield of cassava decreased from 5.83 tons per hectare in 2019 to 5.78 tons per hectare in 2020.

Table 10.10: Land Area and Production Output for Cassava

State	Land Area ('000) Ha			Production ('000) MT			Yield (Ton/Ha)	
	2019	2020	% Change	2019	2020	% Change	2019	2020
Abia	258.08	256.89	-0.46	1488.53	1430.49	-3.90	5.77	5.57
Akwa Ibom	292.76	292.33	-0.15	1755.01	1754.21	-0.05	5.99	6.00
Anambra	252.05	250.47	-0.63	1938.71	1930.93	-0.40	7.69	7.71
Bauchi	132.07	133.47	1.06	491.42	488.67	-0.56	3.72	3.66
Bayelsa	360.96	353.69	-2.01	1173.03	1168.68	-0.37	3.25	3.30
Benue	423.32	402.34	-4.96	3862.41	3678.17	-4.77	9.12	9.14
C/Rivers	406.15	403.16	-0.74	2033.44	2019.91	-0.67	5.01	5.01
Delta	238.94	238.70	-0.10	1793.17	1789.41	-0.21	7.50	7.50
Ebonyi	839.72	771.47	-8.13	20.88	21.58	3.37	0.02	0.03
Edo	364.66	355.32	-2.56	1573.32	1484.88	-5.62	4.31	4.18
Ekiti	236.55	236.32	-0.10	1730.94	1726.08	-0.28	7.32	7.30
Enugu	231.76	231.22	-0.23	2143.34	2097.20	-2.15	9.25	9.07
FCT	453.32	451.74	-0.35	1788.67	1774.12	-0.81	3.95	3.93
Gombe	123.44	123.49	0.04	756.86	725.91	-4.09	6.13	5.88
Imo	326.29	325.39	-0.27	3436.42	3368.06	-1.99	10.53	10.35
Jigawa	131.81	132.12	0.23	1341.64	1341.55	-0.01	10.18	10.15
Kaduna	197.16	197.19	0.02	2279.74	2249.51	-1.33	11.56	11.41
Katsina	158.50	172.93	9.11	418.80	399.49	-4.61	2.64	2.31
Kebbi	142.87	143.42	0.39	653.37	650.68	-0.41	4.57	4.54
Kogi	384.11	383.33	-0.20	3636.43	3609.95	-0.73	9.47	9.42
Kwara	465.71	456.65	-1.95	1529.82	1483.73	-3.01	3.28	3.25
Lagos	268.87	267.84	-0.38	1616.83	1601.48	-0.95	6.01	5.98
Nasarawa	291.29	290.95	-0.12	1722.87	1722.27	-0.03	5.91	5.92
Niger	402.37	389.43	-3.22	1593.28	1451.57	-8.89	3.96	3.73
Ogun	193.69	193.72	0.02	2105.18	1972.94	-6.28	10.87	10.18
Ondo	226.42	226.30	-0.05	3552.54	3551.27	-0.04	15.69	15.69
Osun	183.16	183.03	-0.07	1815.42	1807.46	-0.44	9.91	9.88
Oyo	190.70	190.82	0.06	1805.90	1782.30	-1.31	9.47	9.34
Plateau	385.56	384.18	-0.36	1071.47	1058.83	-1.18	2.78	2.76
Rivers	616.23	575.68	-6.58	3342.48	2956.31	-11.55	5.42	5.14
Sokoto	93.28	93.36	0.09	342.73	342.36	-0.11	3.67	3.67
Taraba	190.24	190.49	0.13	1426.98	1392.45	-2.42	7.50	7.31
Yobe	184.44	184.48	0.02	493.99	493.79	-0.04	2.68	2.68
Zamfara	130.17	127.15	-2.32	233.54	238.37	2.07	1.79	1.87
National	**9776.65**	**9609.08**	**-1.71**	**56969.16**	**55564.60**	**-2.47**	**5.83**	**5.78**

10.11. Cocoyam

Cocoyam is generally cultivated across the country. The area cultivated for cocoyam in 2020 was 1,332,030Ha which represents 8.90% increase over the 2019 estimate of 1,223,180Ha. Due to the prolonged dry spell in the Southern States of Nigeria, cocoyam recorded a drop of 0.42% in output.

The national average yield of cocoyam decreased from 6.46 tons per hectare in 2019 to 5.91 tons per hectare in 2020.

Table 10.11: Land Area and Production Output for Cocoyam

State	Land Area ('000) Ha			Production ('000) MT			Yield (Ton/Ha)	
	2019	2020	% Change	2019	2020	% Change	2019	2020
Abia	40.56	41.07	1.25	294.12	296.34	0.75	7.25	7.22
Akwa Ibom	41.30	44.00	6.54	418.30	418.30	0.00	10.13	9.51
Anambra	87.11	102.74	17.94	574.50	561.87	-2.20	6.60	5.47
Bayelsa	70.53	80.53	14.18	510.20	533.16	4.50	7.23	6.62
Benue	29.05	29.54	1.68	126.61	126.48	-0.10	4.36	4.28
Borno	16.36	19.09	16.69	5.00	5.15	3.00	0.31	0.27
C/Rivers	34.85	34.89	0.12	424.61	423.75	-0.20	12.18	12.15
Delta	39.17	39.91	1.88	200.44	200.51	0.03	5.12	5.02
Ebonyi	128.59	139.81	8.72	283.65	281.83	-0.64	2.21	2.02
Edo	44.95	55.41	23.27	338.46	332.91	-1.64	7.53	6.01
Ekiti	44.34	44.36	0.05	502.94	502.36	-0.12	11.34	11.32
Enugu	87.25	90.42	3.63	790.56	776.66	-1.76	9.06	8.59
Imo	94.52	101.90	7.81	546.39	526.31	-3.68	5.78	5.16
Kogi	19.55	20.55	5.12	209.05	209.05	0.00	10.69	10.17
Kwara	43.74	50.72	15.97	153.61	153.45	-0.10	3.51	3.03
Lagos	35.78	40.87	14.23	143.53	144.34	0.57	4.01	3.53
Nasarawa	27.29	27.61	1.17	184.82	184.94	0.06	6.77	6.70
Niger	25.65	26.26	2.36	261.91	261.90	0.00	10.21	9.97
Ogun	30.66	31.67	3.30	344.10	343.06	-0.30	11.22	10.83
Ondo	34.23	35.23	2.92	550.22	550.22	0.00	16.07	15.62
Osun	36.07	42.82	18.71	356.12	349.66	-1.81	9.87	8.17
Oyo	50.78	51.17	0.77	130.99	131.06	0.05	2.58	2.56
Plateau	14.50	16.23	11.94	77.50	80.88	4.36	5.34	4.98
Rivers	32.24	34.47	6.93	258.12	256.94	-0.46	8.01	7.45
Taraba	114.11	130.76	14.60	214.33	216.04	0.80	1.88	1.65
National	**1223.18**	**1332.03**	**8.90**	**7900.08**	**7867.18**	**-0.42**	**6.46**	**5.91**

10.12. Cotton

Cotton is the most important fibre crop in Nigeria, with a total crop area of 510,370Ha in 2020. This estimated land area thus decreased by 0.39% over the 512,380Ha cultivated in 2019. Production of cotton, especially the long staple varieties in the South West, is on the increase. The major producers of cotton in Nigeria are Katsina, Zamfara, Kano, and Kaduna, Gombe, Adamawa, Borno and Bauchi States. The output of cotton recorded a marginal increase of 2.68%, most of it coming from Katsina, Zamfara and Bauchi States. The national average yield of cotton was 0.45 tons per hectare in 2019 and 0.46 tons per hectare in 2020.

Table 10.12: Land Area and Production Output for Cotton

State	Land Area ('000) Ha			Production ('000) MT			Yield (Ton/Ha)	
	2019	2020	% Change	2019	2020	% Change	2019	2020
Adamawa	22.95	23.86	3.97	10.79	11.37	5.33	0.47	0.48
Bauchi	96.60	96.98	0.39	29.03	29.29	0.89	0.30	0.30
Borno	45.57	45.74	0.38	13.40	13.67	2.00	0.29	0.30
Gombe	32.64	32.82	0.57	11.49	11.52	0.27	0.35	0.35
Jigawa	35.00	35.50	1.43	7.72	7.84	1.61	0.22	0.22
Kaduna	8.57	8.45	-1.41	26.37	26.50	0.51	3.08	3.14
Kano	46.34	47.51	2.52	30.00	32.76	9.19	0.65	0.69
Katsina	62.84	62.88	0.06	28.66	29.72	3.69	0.46	0.47
Kebbi	39.18	39.17	-0.03	14.63	14.93	2.06	0.37	0.38
Oyo	2.42	2.67	10.20	2.08	2.40	15.22	0.86	0.90
Plateau	9.50	9.60	1.05	6.38	6.46	1.30	0.67	0.67
Sokoto	38.09	38.08	-0.03	27.02	27.11	0.34	0.71	0.71
Taraba	22.32	22.14	-0.82	3.73	4.23	13.29	0.17	0.19
Yobe	32.75	32.86	0.34	12.19	12.68	4.00	0.37	0.39
Zamfara	17.61	12.11	-31.24	7.16	6.36	-11.11	0.41	0.53
National	**512.38**	**510.37**	**-0.39**	**230.65**	**236.83**	**2.68**	**0.45**	**0.46**

10.13. Ginger

Ginger is an important spice crop cultivated in Kaduna, Bauchi, Benue and Nasarawa States. The land area for ginger is estimated at 102,060Ha and 8.89% over the 2019 figure. Similarly, output of ginger increased by 0.35% in 2020. The decrease in production output of ginger in Benue and Kaduna States is attributed to the security challenge that limits farmers' access to far farmlands. The national average yield of ginger decrease from 7.24 tons per hectare in 2019 to 6.68 tons per hectare in 2020.

Table 10.13: Land Area and Production Output for Ginger

State	Land Area ('000) Ha			Production ('000) MT			Yield (Ton/Ha)	
	2019	2020	% Change	2019	2020	% Change	2019	2020
Bauchi	7.45	10.46	40.40	28.66	32.94	14.93	3.85	3.15
Benue	12.00	10.47	-12.72	66.50	65.95	-0.82	5.54	6.30
Kaduna	49.69	51.48	3.60	518.92	514.25	-0.90	10.44	9.99
Nasarawa	24.59	29.65	20.57	64.96	68.25	5.06	2.64	2.30
National	**93.73**	**102.06**	**8.89**	**679.04**	**681.39**	**0.35**	**7.24**	**6.68**

10.14. Tomato

Tomato is cultivated in all the agro-ecological zones of the country. Tomato production area is estimated at 1,588,180Ha in 2020, which represents about 7.42% increase over 2019 figure. The output of tomato increased by 6.16%. The national average yield of tomato was 2.10 tons per hectare in 2019 and 2.07 tons per hectare in 2020.

Table 10.14: Land Area and Production Output for Tomato

State	Land Area ('000) Ha			Production ('000) MT			Yield (Ton/Ha)	
	2019	2020	% Change	2019	2020	% Change	2019	2020
Abia	72.59	78.94	8.75	15.48	17.20	11.10	0.21	0.22
Adamawa	57.64	77.10	33.77	144.75	166.40	14.95	2.51	2.16
Anambra	16.44	22.73	38.28	22.37	25.57	14.33	1.36	1.12
Bauchi	36.77	37.95	3.19	184.99	188.87	2.10	5.03	4.98
Benue	19.01	21.18	11.41	74.93	75.95	1.36	3.94	3.59
Borno	27.86	25.73	-7.67	259.60	280.18	7.93	9.32	10.89
Delta	68.62	69.68	1.55	35.26	40.10	13.75	0.51	0.58
Ebonyi	46.74	55.88	19.56	54.09	55.36	2.35	1.16	0.99
Edo	70.27	71.68	2.01	23.90	24.38	2.00	0.34	0.34
Ekiti	53.68	53.23	-0.84	22.20	21.39	-3.63	0.41	0.40
Enugu	65.63	68.94	5.05	16.30	17.13	5.11	0.25	0.25
FCT	60.00	67.52	12.54	64.59	67.74	4.87	1.08	1.00
Gombe	27.48	25.18	-8.38	240.51	272.08	13.12	8.75	10.81
Imo	5.26	8.31	57.95	13.49	14.44	7.09	2.56	1.74
Jigawa	36.06	34.84	-3.38	74.10	74.49	0.53	2.05	2.14
Kaduna	45.48	45.95	1.03	189.17	194.96	3.06	4.16	4.24
Kano	58.42	64.05	9.64	198.58	228.39	15.01	3.40	3.57
Katsina	45.83	49.38	7.76	134.50	145.81	8.41	2.93	2.95
Kebbi	63.89	66.83	4.60	104.31	95.47	-8.47	1.63	1.43
Kogi	51.18	51.49	0.60	79.81	79.41	-0.51	1.56	1.54
Kwara	56.23	59.95	6.62	57.67	61.49	6.62	1.03	1.03

Lagos	62.63	65.37	4.38	38.18	43.19	13.14	0.61	0.66
Nasarawa	58.17	72.06	23.87	103.72	105.24	1.47	1.78	1.46
Niger	20.37	23.50	15.39	122.24	123.09	0.70	6.00	5.24
Ogun	58.31	59.22	1.55	94.09	96.27	2.32	1.61	1.63
Ondo	17.24	22.95	33.13	36.57	37.05	1.32	2.12	1.61
Osun	54.74	55.88	2.08	24.37	20.66	-15.19	0.45	0.37
Oyo	54.18	54.49	0.57	36.92	37.21	0.79	0.68	0.68
Plateau	47.44	48.42	2.06	58.27	60.04	3.04	1.23	1.24
Sokoto	17.68	18.17	2.74	106.01	95.50	-9.92	6.00	5.26
Taraba	43.67	47.14	7.95	127.70	131.34	2.84	2.92	2.79
Yobe	19.29	19.31	0.11	140.82	163.73	16.27	7.30	8.48
Zamfara	39.61	45.13	13.94	203.48	234.05	15.02	5.14	5.19
National	**1478.42**	**1588.18**	**7.42**	**3102.96**	**3294.20**	**6.16**	**2.10**	**2.07**

10.15. Onion

Onion is cultivated mainly in the Northern States of Nigeria with very small amounts in the South West Zone. The total crop area for onion was 589,620Ha in 2020 which is an increase of 3.77% over the 568,230Ha recorded for 2019. The production of onion increased marginally in 2020 by 3.62%. The national average yield of onion was 2.58 tons per hectare in 2019 and 2.57 tons per hectare in 2020.

Table 10.15: Land Area and Production Output for Onion

State	Land Area ('000) Ha			Production ('000) MT			Yield (Ton/Ha)	
	2019	2020	% Change	2019	2020	% Change	2019	2020
Adamawa	58.37	58.75	0.65	139.96	140.02	0.04	2.40	2.38
Bauchi	44.68	46.31	3.65	94.27	95.37	1.17	2.11	2.06
Benue	26.97	27.67	2.60	50.65	51.22	1.12	1.88	1.85
Borno	18.51	19.04	2.89	70.35	70.40	0.07	3.80	3.70
Gombe	50.14	51.78	3.28	89.84	91.04	1.33	1.79	1.76
Jigawa	29.57	30.46	3.02	78.46	79.89	1.83	2.65	2.62
Kaduna	31.99	32.90	2.85	103.49	105.05	1.52	3.24	3.19
Kano	50.80	51.80	1.97	117.89	124.44	5.56	2.32	2.40
Katsina	38.77	38.82	0.13	106.95	111.55	4.31	2.76	2.87
Kebbi	45.08	46.21	2.50	126.62	127.69	0.84	2.81	2.76
Lagos	5.32	7.30	37.14	13.93	18.57	33.32	2.62	2.54
Plateau	39.80	41.39	3.99	51.47	53.87	4.66	1.29	1.30
Sokoto	31.44	32.32	2.80	123.10	142.13	15.46	3.92	4.40
Taraba	19.52	25.57	30.99	76.76	81.00	5.52	3.93	3.17
Yobe	49.30	50.30	2.03	94.06	94.12	0.07	1.91	1.87
Zamfara	27.97	28.99	3.66	126.49	130.91	3.49	4.52	4.52
National	**568.23**	**589.62**	**3.77**	**1464.28**	**1517.28**	**3.62**	**2.58**	**2.57**

10.16. Okro

Okra is grown in all agro-ecological zones of Nigeria with a total estimated crop land area of 1,473,150Ha which is an increase of 2.96% over 2019 figure. The production output of okra also increased by 2.33% in 2020. The national average yield of Okro was 1.20 tons per hectare in 2019 and 1.19 tons per hectare in 2020.

Table 10.16: Land Area and Production Output for Okro

State	Land Area ('000) Ha			Production ('000) MT			Yield (Ton/Ha)	
	2019	2020	% Change	2019	2020	% Change	2019	2020
Abia	18.12	18.70	3.19	20.63	20.70	0.35	1.14	1.11
Adamawa	32.41	33.26	2.61	18.56	19.71	6.18	0.57	0.59
Akwa Ibom	114.46	114.42	-0.04	103.85	103.90	0.05	0.91	0.91
Anambra	25.42	26.18	2.97	19.67	20.16	2.50	0.77	0.77
Bauchi	25.70	26.19	1.90	24.81	25.82	4.06	0.97	0.99
Bayelsa	122.79	113.38	-7.67	114.12	110.16	-3.47	0.93	0.97
Benue	37.12	37.35	0.61	55.70	56.11	0.74	1.50	1.50
Borno	33.90	34.42	1.53	28.80	29.11	1.07	0.85	0.85
C/Rivers	125.36	130.12	3.80	119.48	126.25	5.67	0.95	0.97
Delta	43.26	44.05	1.82	105.18	106.97	1.71	2.43	2.43
Ebonyi	13.23	14.02	5.96	15.53	15.56	0.20	1.17	1.11
Edo	44.47	48.48	9.01	117.79	124.25	5.48	2.65	2.56
Ekiti	24.05	22.46	-6.62	13.00	12.81	-1.47	0.54	0.57
Enugu	23.28	24.73	6.23	21.40	21.39	-0.05	0.92	0.86
FCT	65.30	74.53	14.14	48.84	56.46	15.60	0.75	0.76
Gombe	33.90	34.42	1.53	25.75	26.11	1.41	0.76	0.76
Imo	61.56	68.59	11.42	30.26	29.67	-1.95	0.49	0.43
Jigawa	18.74	19.86	5.99	26.42	26.34	-0.31	1.41	1.33
Kaduna	17.63	20.41	15.76	48.04	50.53	5.18	2.72	2.48
Kano	48.76	48.92	0.34	26.50	26.50	0.00	0.54	0.54
Katsina	15.89	16.74	5.34	17.19	17.90	4.14	1.08	1.07
Kebbi	37.44	37.89	1.21	37.11	37.12	0.03	0.99	0.98
Kogi	40.15	41.25	2.74	84.25	87.04	3.31	2.10	2.11
Kwara	8.83	10.19	15.43	83.13	87.53	5.29	9.41	8.59
Lagos	9.72	8.90	-8.47	60.22	60.34	0.20	6.20	6.78
Nasarawa	23.30	24.15	3.63	28.60	28.91	1.08	1.23	1.20
Niger	7.23	6.28	-13.15	15.08	16.63	10.27	2.09	2.65
Ogun	13.67	13.82	1.13	36.16	34.82	-3.70	2.65	2.52
Ondo	41.39	41.79	0.97	11.96	12.91	7.90	0.29	0.31
Osun	45.63	48.18	5.59	19.48	18.30	-6.06	0.43	0.38
Oyo	6.79	7.33	7.93	37.10	37.10	0.00	5.46	5.06
Plateau	31.55	32.12	1.81	52.30	52.30	0.00	1.66	1.63
Rivers	130.62	137.53	5.29	123.33	123.36	0.02	0.94	0.90
Sokoto	14.70	15.70	6.80	22.30	23.26	4.29	1.52	1.48
Taraba	22.01	23.30	5.88	38.09	40.44	6.16	1.73	1.74
Yobe	30.86	31.44	1.89	23.58	24.40	3.49	0.76	0.78
Zamfara	21.62	22.06	2.02	43.96	47.31	7.63	2.03	2.14
National	**1430.86**	**1473.15**	**2.96**	**1718.17**	**1758.18**	**2.33**	**1.20**	**1.19**

10.17 Plantain and Banana

Plantain and banana are grown mostly in the Southern zones of Nigeria with a total estimated crop land area of 476,070Ha which is an increase of 5.6% over the 2019 figure. The production output figure of plantain and banana increased by 1.04% in 2020. The national average yield of plantain and banana decreased from 12.26 tons per hectare in 2019 and 11.73 tons per hectare in 2020.

Table 10.17: Land Area and Production Output for Plantain

State	Land Area ('000) Ha			Production ('000) MT			Yield (Ton/Ha)	
	2019	2020	% Change	2019	2020	% Change	2019	2020
Abia	16.70	18.80	12.57	138.30	139.00	0.51	8.28	7.39
Akwa Ibom	52.00	54.08	4.00	2100.00	2005.00	-4.52	40.38	37.07
Bayelsa	63.51	67.12	5.68	370.04	391.10	5.69	5.83	5.83
Edo	150.00	153.00	2.00	2250.00	2295.00	2.00	15.00	15.00
Imo	30.00	40.55	35.17	280.50	355.50	26.74	9.35	8.77
Kwara	138.60	142.52	2.83	387.27	398.23	2.83	2.79	2.79
National	**450.81**	**476.07**	**5.60**	**5526.11**	**5583.83**	**1.04**	**12.26**	**11.73**

11.0. LIVESTOCK PRODUCTION SITUATION

11.1. Livestock Population

The population of livestock of different species for 2019 and 2020 were presented in Table 11.1a and b. There was a total of 177,545 heads of cattle which was recorded as increase for the nation in 2020 indicating an increase of 0.87%. The population of chickens increased by 15,607,265 amounting to 7.5% increase in the stocks in 2020. Sheep population also increased by 1,168,906 (2.5% increase from 2019). Goat population in Nigeria increased by 1,324,413 (1.6% of the population in 2019). Similarly, increase was recorded for all other species of livestock presented in this report.

Figures 11.1 to 11.7 showed the States of Nigeria with the ten largest populations of different species of livestock. Ten States in Nigeria with the most population of cattle accounting for 80% of the total population of the species in 2020 was shown in Figure 11.1. Zamfara State had the largest population of cattle (3,462,348) and sheep (7,496,874) (Figure 11.2). The largest population of goats (6,463,210) was found in Katsina State as shown in Figure 11.3. The ten States with the largest populations of pigs accounted for 84.6% of the species in 2020 (Figure 11.4). Plateau State had the largest population of pigs with 1,866,367.

Livestock population of smallholder and commercial farms were shown in Tables 11.3 and 11.4, respectively. Varying numbers of stocks are being kept by farmers either in backyard or commercial production.

Table11.1a: Livestock population in Nigeria for 2019 and 2020

Agro-ecological Zone/State	Cattle		Sheep		Goats		Pig		Chicken	
	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020
North-East										
Adamawa	1,213,100	1,223,654	1,647,611	1,688,801	1,855,984	1,902,384	743,037	772,759	425,688	457,615
Bauchi	575,194	580,199	248,308	254,515	429,182	439,911	-	-	5,587,223	6,006,264
Borno	1,834,556	1,850,517	2,656,002	2,722,402	2,707,250	2,774,931	-	-	1,831,622	1,968,994
Gombe	583,997	589,077	709,123	726,851	1,362,343	1,396,402	114,787	119,379	4,558,185	4,900,049
Yobe	1,071,879	1,081,204	1,445,916	1,482,064	2,181,875	2,236,422	68,135	70,861	9,381,028	10,084,605
North-West										
Jigawa	2,374,634	2,395,293	5,453,566	5,589,905	6,139,666	6,293,158	-	-	7,374,147	7,927,208
Kaduna	708,521	714,685	1,716,178	1,759,082	2,065,453	2,117,090	722,205	751,094	8,248,279	8,866,900
Kano	2,172,534	2,191,435	4,033,225	4,134,056	4,301,649	4,409,190	-	-	13,535,860	14,551,050
Katsina	590,598	595,736	5,488,904	5,626,126	6,305,570	6,463,210			9,216,065	9,907,269
Kebbi	993,454	1,002,097	2,166,920	2,221,093	3,077,522	3,154,460	102,106	106,190	7,376,045	7,929,248
Sokoto	424,726	428,422	1,315,400	1,348,285	1,172,217	1,201,522	-	-	5,705,355	6,133,257
Zamfara	3,432,486	3,462,348	7,314,023	7,496,874	5,593,430	5,733,266	-	-	11,297,822	12,145,158
North-Central										
Benue	130,237	131,370	837,545	858,484	4,549,374	4,663,109	1,150,070	1,196,073	3,285,244	3,531,637
FCT Abuja	32,441	32,723	200,900	205,922	1,031,872	1,057,669	31,331	32,585	2,535,659	2,725,834
Kogi	144,396	145,652	1,189,109	1,218,836	2,687,370	2,754,554	64,811	67,403	9,696,806	10,424,067
Kwara	1,044,890	1,053,980	409,300	419,532	2,011,208	2,061,488			2,756,180	2,962,894
Nasrawa	1,418,898	1,431,243	1,050,224	1,076,479	1,814,414	1,859,775	325,053	338,055	3,984,662	4,283,512
Niger	239,430	241,513	779,455	798,942	1,666,736	1,708,405	38,438	39,975	10,433,837	11,216,375
Plateau	772,952	779,677	2,310,939	2,368,712	4,262,868	4,369,439	1,794,584	1,866,367	8,972,591	9,645,535
Taraba	321,228	324,023	1,141,312	1,169,845	1,855,984	1,158,925	337,296	350,788	7,294,246	7,841,314
South-West										
Ekiti	34,988	35,292	72,187	73,991	1,080,300	1,107,308	138,245	143,775	125,148	124,534
Lagos					12,663	12,980	15,782	16,413	5,970,458	6,418,242
Ogun	14,945	15,075	199,793	204,788	1,111,225	1,139,005	89,653	93,239	7,689,139	8,265,825
Ondo	36,418	36,735	162,664	166,731	2,586,624	2,651,289	993,805	1,033,557	1,436,867	1,544,632
Osun			667,979	684,678	4,166,795	4,270,965	202,825	210,938	3,056,050	3,285,253
Oyo	61,937	62,476	709,330	727,064	3,368,442	3,452,653	265,906	276,542	12,563,011	13,505,237
South-East										
Abia			218,204	223,659	491,085	503,363	425,814	442,846	1,418,991	1,525,415
Anambra			157,690	161,632	510,830	523,601			4,374,084	4,702,140
Ebonyi	14,331	14,455	218,224	223,679	1,116,521	1,144,434			6,761,794	7,268,929
Enugu	2,508	2,530	160,130	164,134	1,565,797	1,604,942	85,252	88,662	5,971,610	6,419,481
Imo			88,332	90,540	1,678,833	1,720,804	275,365	286,380	10,249,071	11,017,751
South-South										
Akwa-Ibom			970,508	994,770	2,281,398	2,338,433	506,932	527,210	3,320,786	3,569,845
Bayelsa										
Cross River			132,812	136,132	249,429	255,665	43,360	45,094	2,821,696	3,033,323
Delta	30,024	30,285	229,926	235,674	2,091,452	2,143,738	41,084	42,727	2,331,445	2,506,303
Edo	132,305	133,456	623,291	638,874	1,345,644	1,379,285	22,093	22,976	4,757,869	5,114,710
Rivers			32,428	33,239	1,985,741	2,035,384			1,752,308	1,883,731
Total (million)	20.407	20.585,	46.757	47.926	82.714,746	84.039	8.597	8.941	208.096	223.704

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

Table11.1b: Livestock population in Nigeria for 2019 and 2020

Agro-ecological Zone/State	Rabbits		Donkey		Horse		Guinea fowl		Turkey	
	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020
North-East										
Adamawa	45,745	47,575					153,437	161,109	15,115	15,870
Bauchi			1,449	1,450			891,865	936,458		
Borno			143,707	143,851	16,133	16,150	39,703	41,688		
Gombe			14,241	14,255			1,050,297	1,102,812		
Yobe			1,104	1,105			3,007,259	3,157,622	40,026	42,027
North-West										
Jigawa			25,135	25,160	12,874	12,887	1,286,537	1,350,863	74,451	78,174
Kaduna							310,444	325,966		
Kano			135,962	136,098	62,302	62,364	2,393,717	2,513,403	561,966	590,064
Katsina			87,237	87,324			1,873,964	1,967,662		
Kebbi			82,870	82,953	4,198	4,202	2,678,883	2,812,827		
Sokoto			153,657	153,811			1,764,699	1,852,934	18,281	19,195
Zamfara	64,077	66,641	331,641	331,973	6,919	6,926	5,174,730	5,433,466		
North-Central										
Benue	70,161	72,967					61,149	64,206	12,685	13,319
FCT Abuja							19,869	20,863	29,162	30,620
Kogi							908,990	954,439	261,402	274,472
Kwara							337,111	353,967		
Nasrawa	31,407	32,663	2,377	2,380			591,753	621,340	286,938	301,285
Niger	305,172	317,379					2,049,682	2,152,166		
Plateau	56,917	59,193					311,789	327,378	161,526	169,602
Taraba							643,950	676,148	300,969	316,017
South-West										
Ekiti	73,804	76,757					602	632	123	129
Lagos										
Ogun	56,152	58,399					60,091	63,095	59,540	62,517
Ondo	80,329	83,542							17,327	18,193
Osun									9,012	9,462
Oyo							180,587	189,616		
South-South										
Abia	38,096	39,620					156,476	164,300	12,637	13,269
Anambra									276,648	290,481
Ebonyi	5,535	5,757								
Enugu							33,312	34,977	205,613	215,894
Imo	36,777	38,248					38,340	40,257	92,450	97,072
South-South										
Akwa-Ibom	111,740	116,210					312,172	327,781	55,477	58,251
Delta	64,077	66,641							14,050	14,753
Edo	80,599	83,823					5,343	5,610	142,359	149,477
Rivers	19,458	20,236								
Total	**1,140,046**	**1,185,651**	**979,380**	**980,360**	**102,426**	**102,529**	**26,336,751**	**27,653,585**	**2,647,757**	**2,780,143**

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

Figure 11.1: Ten States in Nigeria with the highest population of cattle accounting for 80% of the total population in 2020.

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

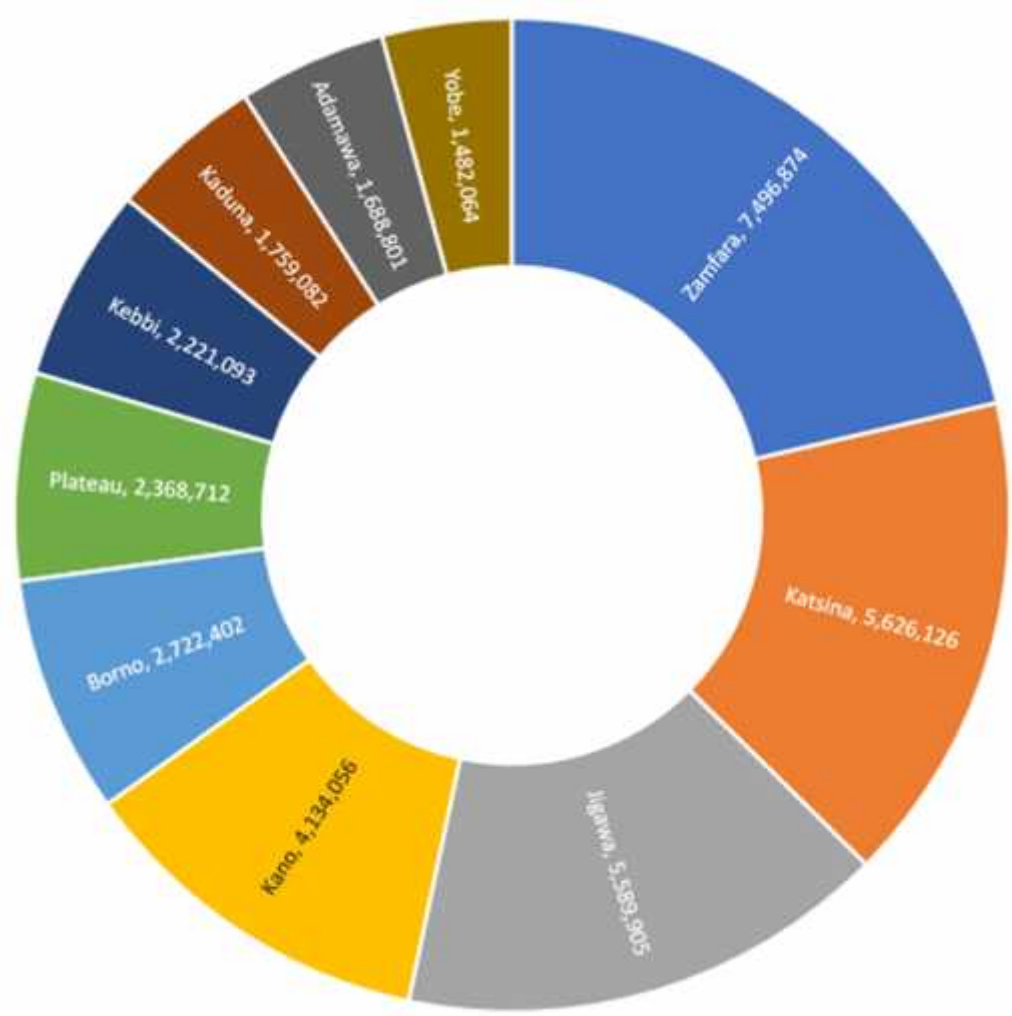


Figure 11.2: Ten States in Nigeria with the highest population of sheep accounting for 73.21% of the total population in 2020.

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

Figure 11.3: Ten States in Nigeria with the highest population of goats accounting for 54.24% of the total population in 2020.

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

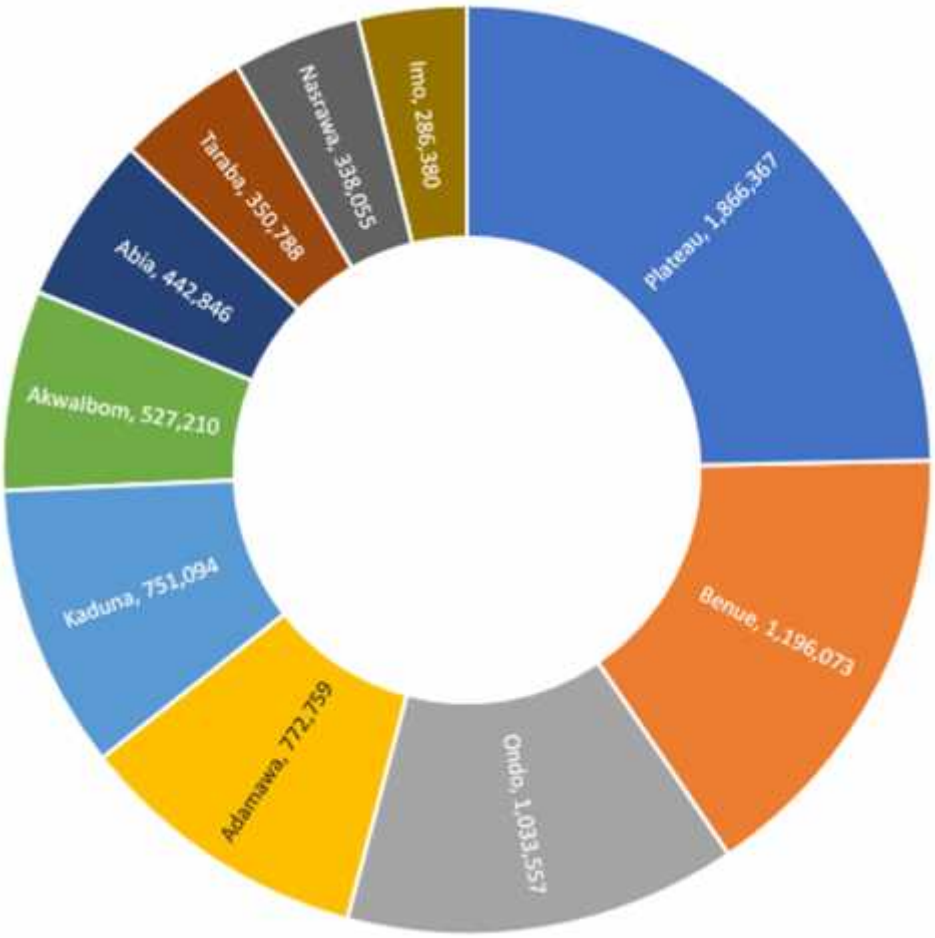


Figure 11.4: Ten States in Nigeria with the highest population of pigs accounting for 84.6% of the total population in 2020.

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

Figure 11.5: Ten States in Nigeria with the highest population of chickens accounting for 49.78% of the total population in 2020.

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

Figure 11.6: Ten States in Nigeria with the highest population of guinea fowl accounting for 84.25% of the total population in 2020.

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

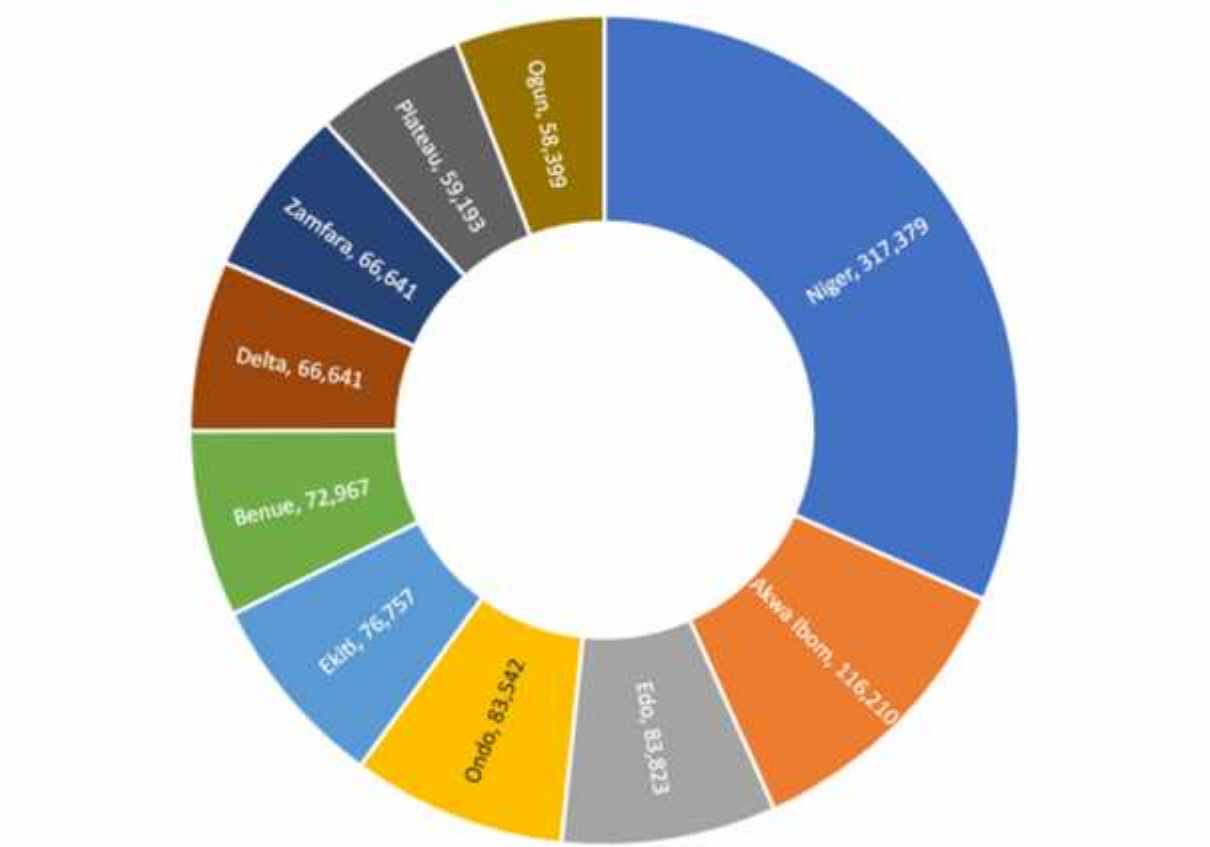


Figure 11.7: Ten States in Nigeria with the highest population of rabbits accounting for 84.47% of the total population in 2020.

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

Table 11.2: Livestock Population among Smallholding Farms in Nigeria

Agro-Ecological Zone/State	Livestock Type	Population of Small-Holding Stock	Number of Small-Holding Farms and Average Holdings	
			№ of Farms	Average Herd/Flock Size
North-East				
Bauchi	Cattle	750	300	25
	Sheep	7,500	500	15
	Goats	14,000	700	20
	Poultry	46,500	500	93
	Rabbits	150	30	5
	Pigs	200	50	4
Gombe	Cattle	515,000	150	75
	Poultry	1,450,000	1,054	3000
	Goats	943,700	1,604	30
	Sheep	678,250	1,342	30
North-West				
Jigawa	Poultry	100,000	500	600
	Sheep and goats	45,000	300	100
North-Central				
Benue	Cattle	150,800	6,000	19
	Sheep	2,450,000	170,000	8
	Goats	4,506,010	600,000	10
	Pigs	2,955.050	230,000	9
	Poultry	8,154,000	96,821	250
FCT	Poultry	21,345	166	308
	Cattle	18	3	6
	Sheep and goats	79	12	6
	Pigs	90	4	22
	Rabbits	124	3	41
	Snail	2,000	2	1,000
Kogi	Cattle			20
	Goat			30
	Sheep			20
	Poultry			250
Plateau	Poultry	525,000	1,500	350
	Cattle	11,200	750	15
	Sheep	37,500	2,500	15
	Goats	51,800	3,700	14

South-West				
Ekiti	Chicken	120,000	600	200
	Cattle	1,050	70	15
	Sheep and goats		750	
Lagos	Poultry	150,000	150	400
	Pigs	4,000	50	30
Ondo	Poultry	32,585		200
	Pigs	330		10
	Rabbit	194		15
	Sheep and goat	545		8
Osun	Poultry	60,000	20	3,000
	Sheep and goat	30,000	5	6,000
	Pigs	25,000	5	5,000
Oyo	Goats	33,000,000	2,200,000	15
	Sheep	15,000,000	1,500,000	10
	Poultry	15,000,000	75,505	200
	Pig	61,375	2,455	25
	Cattle	57,000	5,750	10

Table 11.2 Cont'd: Livestock population among smallholding farms in Nigeria

Agro-Ecological Zone/State	Livestock type	Total population	Number of Small Holding Farms and Average Holdings	
			№ of Farms	Average Herd/Flock Size
South-East				
Abia	Poultry	61,776	792	78
	Pigs	4,400	880	55
	Sheep and goats	54,000	1,800	25
Anambra	Poultry			350
	Goat			10
	Sheep			5
Ebonyi	Poultry	6,500,000	200	1,775
	Goat	270	5	37
	Sheep	285	20	15
	Pigs	200	10	18
Enugu	Poultry	786	9	
Imo	Poultry	33,500	1,000-2,500	250

South-South				
Akwa-Ibom	Poultry	10,000,000	20,000	200
	Pigs	100,000	10,000	10
	Goats	25,000	5,000	5
	Sheep	25,000	5,000	5
	Micro-livestock	10,000	2,000	50
	Snail	180,000	4,500	40
	Rabbit	2,800	560	5
Delta	Pigs	1,355	97	12
	Poultry	42,600	213	200
Edo	Cattle	2,300,000	320	10
	Sheep and goats	1,500,000	185,000	10
	Pig	70,000	300	10
	Grasscutter	95,000	11,000	20
	Snails	3,700,000	39,000	300
	Poultry	700,000	500,000	150

Table 11.3: Livestock population among commercial farms in Nigeria

Agro-Ecological Zone/State	Livestock type	Total population	Number of Commercial Farms and Average Holdings	
			№ of Farms	Average Herd/Flock Size
North-East				
Bauchi	Cattle	750	15	50
	Poultry	175,000	35	5,000
	Sheep	2,000	20	100
	Goats	2,500	50	50
Gombe	Poultry	50,000	45	1,250
North-West				
Jigawa	Poultry	150,000	40	1,000
	Sheep	75,000	20	250
	Goats	112,000	20	400
North-Central				
Benue	Cattle	250,800	50	15
	Sheep and goats	7,300,000	40	
	Poultry	10,000,000	25,000	500
	Pigs	950,000	1,500	100
FCT	Poultry	1,894,590	76	27,198
	Cattle	755	17	76
	Sheep and goats	625	44	4
Kogi	Goat			25
	Sheep			25
	Poultry			2,000
Plateau	Poultry	5,250,000	2,500	2,100
	Cattle	500	250	250
South-East				
Abia	Poultry	1,512,500	275	5,500
	Pigs	165,000	550	300

Table 11.3 Cont'd: Livestock population among commercial farms in Nigeria

Agro-Ecological Zone/State	Livestock type	Total population	Number of Commercial Farms and Average Holdings	
			№ of Farms	Average Herd/Flock Size
South-West				
Ekiti	Poultry	340,000	170	2,000
	Cattle	12,500	250	50
	Sheep and goats	10,500	300	35
Lagos	Poultry	4,000,000	50	500
	Pigs	1,500,000	2,000	2,000
Ondo	Poultry	293,269	146	2,000
	Pigs	2,971	50	50
	Sheep and goats	2,182	87	25
	Cattle	12,033	172	70
Ogun	Poultry	16,418,490	831	3,200
Osun	Poultry	2,000,000	500	5,320
	Sheep and goats	2,500,000	250	10,000
	Cattle	156,000	300	520
	Pigs	273,000	200	1,366
Oyo	Sheep and goats	87,500	1,750	50
	Poultry	554,400	4,620	1,200
	Pigs	109,500	2,190	50
	Cattle	57,500	5,750	10
South-East				
Ebonyi	Cattle	150	2	20
	Pigs	10,000	8	75
	Poultry	200,000,000	15	6,000
Enugu	Poultry	448,200	17	
South-South				
Cross Rivers	Poultry	1,500,000	2,000	750
	Pigs	750,000	1,500	15
	Sheep	700,000	500	15
	Goats	2,000,000	2,000	15
	Cattle	700,000	50	15
Delta	Pig	18,522	216	83
	Chicken	240,000	148	5,000
	Goat	7,881	278	30
	Sheep	3,426	68	10
Edo	Cattle	35,700	30	250
	Sheep and goats	800,000	100	2,250
	Pigs	120,000	75	325
	Poultry	2,800,000	70	5,000

11.2 Livestock Pests and Diseases

Livestock pests and diseases is indicated in Tables 11.4a and 11.4b as documented by 27 States in 2020. Contagious Bovine Pleuroneumonia (CBPP) was recorded in Bauchi and Gombe (North East), Zamfara and Jigawa (North West), Benue, Kogi, Taraba, Kwara and Nasarawa (North Central), Osun (South West), Anambra and Cross River (South East), and Edo and Delta (South South). This indicated that CBPP affected cattle in one or more States across the six (6) agro-ecological zones. Cattle were also affected by helminthiasis (Figure 11.8).

Peste des petits ruminants (PPR) is an acute viral disease that affected sheep and goats in some States in 2020. The States affected were Bauchi, Gombe, Jigawa, Benue, Kwara, Plateau, Taraba, Ekiti, Lagos, Osun, Ondo, Anambra, Ebonyi, Imo, Enugu, Akwa Ibom, Cross River and Edo States. Helminthiasis, which is a severe disease that affect sheep, goats and swine was recorded for nine (9) States which include Yobe, Gombe, Benue, Kogi, Kwara, Ekiti, Osun, Cross River and Edo States (Figure 11.9). Other diseases that affected sheep and goat in 2020 were *fasciola*, mange and foot rot.

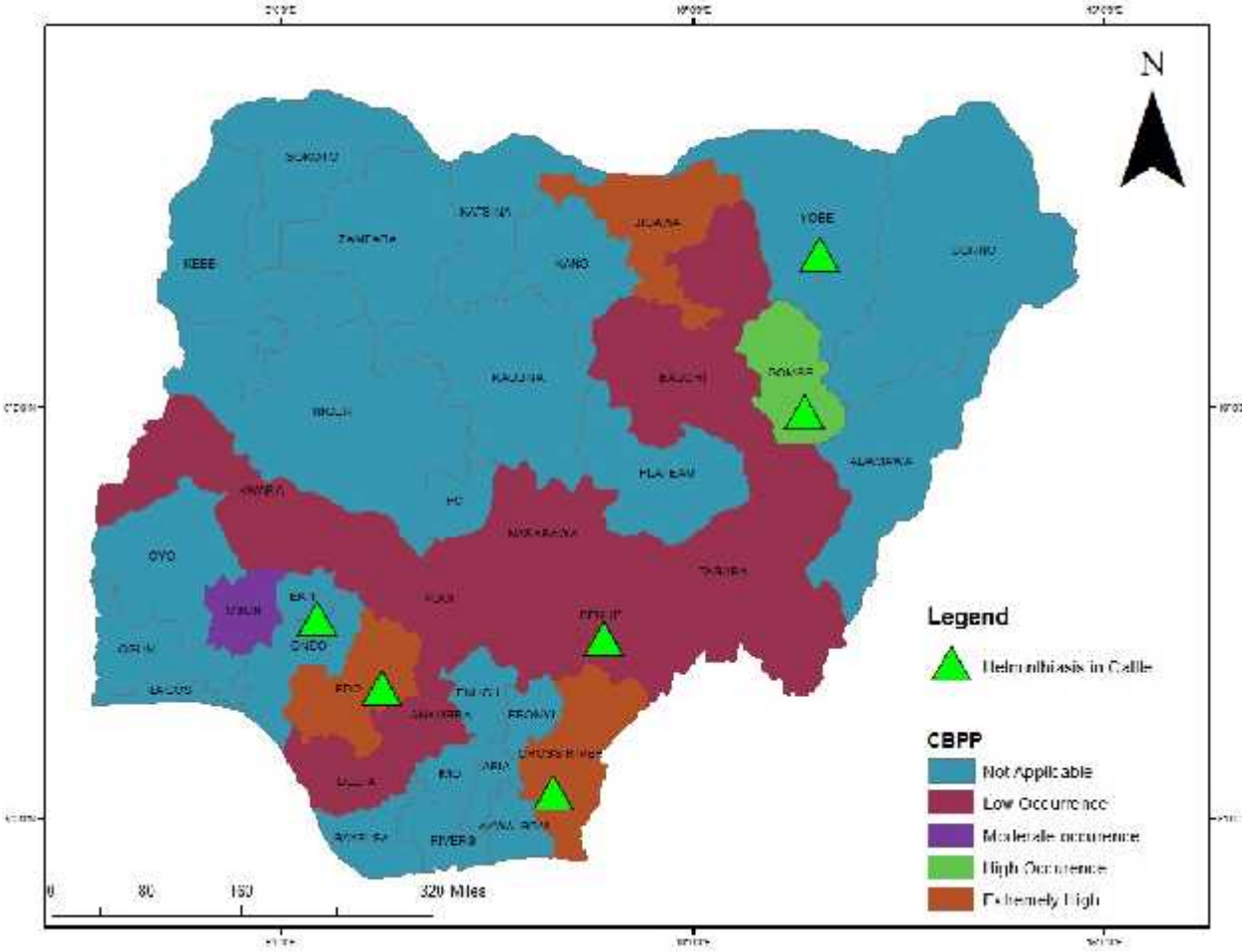


Figure 11.8: States with incidence of CBPP and Helminthiasis

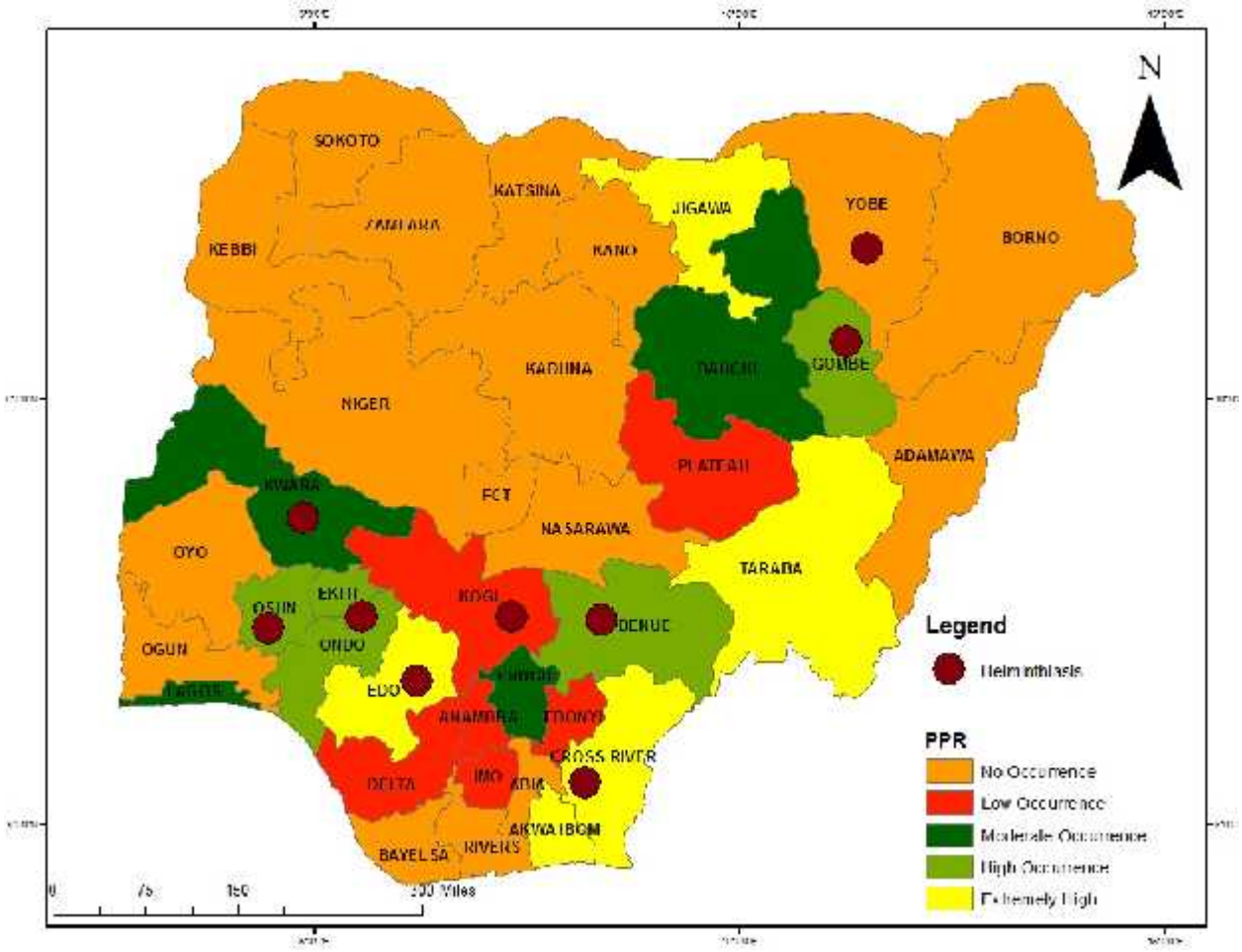


Figure 11.9: States with Incidence of PPR and Helminthiasis

African Swine Fever (ASF) is a viral disease to which only pigs are susceptible. The reported States with this viral disease include Bauchi, Gombe, Benue, Plateau, Lagos, Ogun, Oyo, Anambra, Ebonyi, Enugu, Akwa Ibom, Bayelsa, Cross River, Edo and Delta (Figure 11.10).

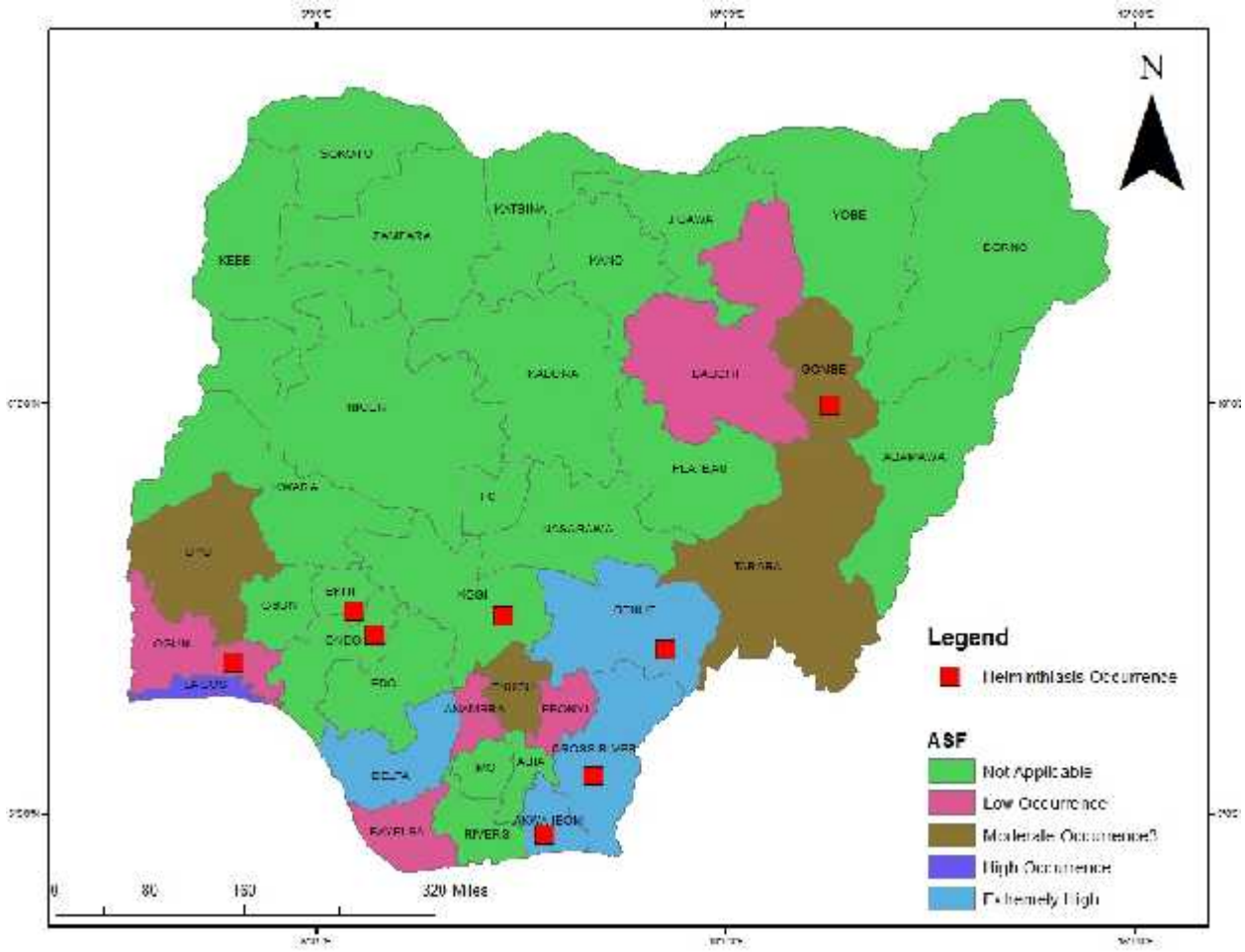


Figure 11.10: States with incidence of African Swine Fever (ASF) and Helminthiasis

Diseases recorded in 2020 to had affected poultry include Gumboro (Infectious Bursal Disease - IBD), New castle disease (NCD), fowl pox and coccidiosis. Gumboro is a highly contagious disease that affect poultry (Figure 11.11) in Bauchi and Gombe (North East), Jigawa (North West), Kwara, FCT and Taraba (North Central), Osun, Ondo and Oyo (South West), Anambra, Ebonyi and Enugu (South East), and Cross River and Delta (South South).

New castle disease is a viral disease that also affected poultry in 2020 (Figure 11.11). The disease affected poultry in Bauchi, Gombe, Jigawa, Benue, Kwara, Plateau, Ekiti, Osun, Oyo, Ondo, Anambra, Ebonyi, Imo, Cross River and Edo. Vaccination and other preventive measures were taken by some States to control the occurrences of these diseases.

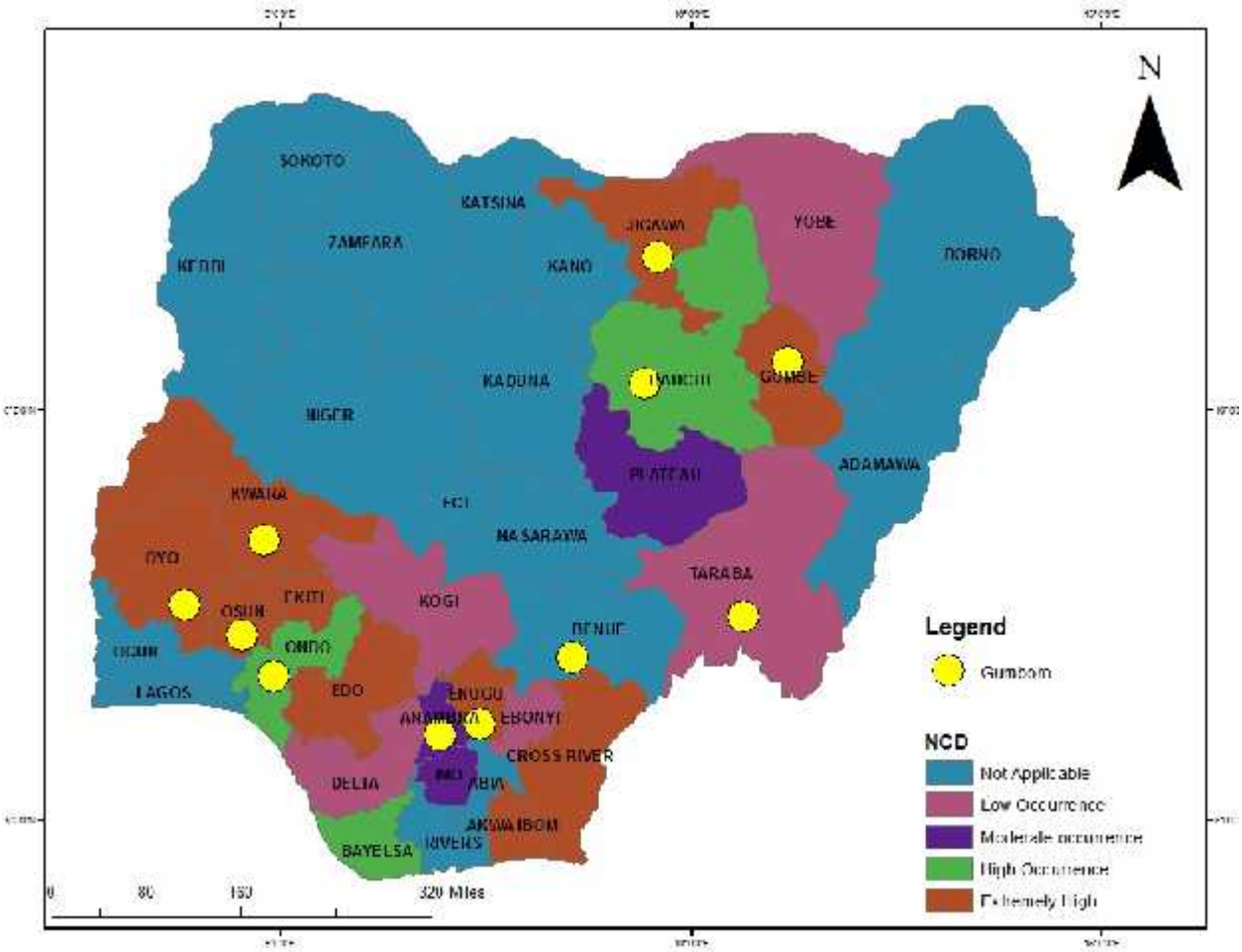


Figure 11.11: Incidence of NCD and Gumboro in Nigeria in 2020

Table 11.4a: Livestock Pests and Diseases (Cattle)

Zone/State	Disease or Pest	Location of incidences	Total stock of animal	№ of animals affected	% mortality	№vaccinated or treated	№ culled due to infection
North-East							
Bauchi	CBPP/TB	Lanzai	248	88	0	160	0
	FMD	Bazaar	4000	25	0	25	0
	LSD	Darazo	325	195	5	318	2
Yobe	Helminthiasis	Potiskum	414	-	-	-	-
		Damaturu	1273	-		-	-
		Gashua	182	-	-	-	-
Gombe	CBPP	Across the State	-	2417	-	590,980	-
	Helminthiasis	Across the State	-	5860	-	-	-
North-West							
Jigawa	CBPP	4 ZONES	240,000	12,000	2	33,0000	16
	TB	2 ZONES	101,000	820	1	410	22
	LSD	3 ZONES	82,000	204	0.6	140	11
North-Central							
Benue	Helminthiasis	Across the State	Numerous	Numerous	Low	-	Few
	CBPP		Numerous	Numerous	Low	-	Few
	TB		Numerous	Numerous	Low	-	Few
Kogi	CBPP	All LGAs	7,000,000	-	-	65,000	-
Kwara	FMD	Lafiagi; Patigi	750	700	1.5	750	14
	CBPP		330	150	2	330	-
Plateau	TB	-	75	16	-	16	12
Taraba	CBPP	6 LGAs	1380	130	3	4680	82
	FMD	8 LGAs	1821	181	2	1460	43
	Trypanosomiasis	15 LGAs	12,813	425	4	6835	-
South-West							
Ekiti	Helminthiasis	Central abattoir, Ado-Ekiti	3000	1200	-	1190	10
Ogun	Mastitis	Lafenfa	-	-	-	-	-
	Foot Rot	Ijebu-igbo	-	-	-	-	-
	Mange	Isheri	-	-	-		-
Ondo	Tick infection	State wide	500	400	0	300	100
Osun	FMD	Iwo	500	200	-	500	-
	STS	Iwo	260	150	-	260	-
	CBPP	Kelebe	315	205	2.8	215	-
Oyo	FMD	Ogbomoso; Oyo	15,000	2000	25	-	504

South-East							
Anambra	TB	Uga	120	1	-	-	1
	CBPP	Umuchu	76	76	78.9	76	-
	Ticks	Wide spread	220	20	-	220	-
Ebonyi	Tick infestation	Onicha	50	20	-	-	-
South-South							
Akwa Ibom	Uyo	250	250	-	250	-	
	Itu	100	100	-	100	-	

Table 11.4a Cont'd: Livestock Pests and Diseases (Cattle)

Zone/State	Disease or Pest	Location of incidences	Total stock of animal	№ of animals affected	% mortality	№vaccinated or treated	№ culled due to infection
South-South							
Akwa Ibom	Tick	Uyo	250	250	-	250	-
		Itu	100	100	-	100	-
Bayelsa	Food poisoning	Okodi	15	3	-	15	-
Cross River	CBPP	Cal Ogoja	150,000	142,000	5	142,500	-
	Helminthiasis	Cal Ikom	500,000	500,000	-	500,000	-
	Babesias	Ikom	120,000	114,000	5	114,000	-
Edo	Foot rot	State wide	1,700,000	75,000	4.4	-	-
	Trypanosome	Stae wide	1,700,000	400,000	23.4	-	-
	Helminths	State wide	1,700,000	500,000	29.4	-	-
	CBPP	State wide	1,700,000	45,000	2.6	-	-
Delta	CBPP	Across the State	-	-	-	164	-

Table 11.4b: Livestock Pests and Diseases (Sheep and Goats)

Zone/State	Disease or Pest	Location of incidences	Total stock of animal	№ of animals affected	% mortality	№ vaccinated or treated	№culled due to infection
North East							
Bauchi	PPR (sheep)	Darazo	453	155	5	203	0
	Sheep Pox	Zindi	151	5	0	0	5
	PPR (Goats)	Lafiyaru	202	91	0	111	0
		Chandom	271	208	38	154	16
		Misau	89	57	13	37	7
Yobe	Helminthiasis	Geidam	68	-	-	-	-
		Damaturu	2026	-	-	-	-
		Gashua	195	-	-	-	-
Gombe	PPR (sheep)	Across the State	-	1590	-	398,127	
	PPR (Goats)	Across the State	-	2129	-	398,127	
	Helminthiasis (sheep)	Across the State	-	14,200	-	-	
	Helminthiasis (Goats)	Across the State	-	14,587	-	-	
North West							
Jigawa	CBPP	2 ZONES	32,000	684	0.3	83,000	63
	PPR	3 ZONES	182,000	12,000	0.1	67,000	41
	CECTHYM	4 ZONES	14,000	206	0.1	121	13
North Central							
Benue	PPR	Across the State	Numerous	Numerous	High		
	Helminthiasis		Numerous	Numerous	Low		
	Fasciola		Numerous	Few	-		
Kogi	PPR	All LGAs	1,000,000 for sheep; 1,200,00 for goats	-	-	24,000 for sheep and 35,250 for goats	-
	Helminth						
	Ectoparasite						
Kwara	PPR (Sheep)	Okuta	700	700	1	700	-
	Helminthiasis (Sheep)	Ilorin East	145	100	4	145	5
	Mange (Goats)	Ilorin	850	850	-	850	-
	PPR (Goats)	Ajase	260	250	1	260	-
Plateau	PPR	-	125	20	-	-	-
Taraba	PPR	15 LGAs	-	6210	6	3820	-
	Foot Rot	12 LGAs	-	430	-	-	-
	ORF	8 LGAs	-	83	2	-	-

Table 11.4b Cont'd: Livestock Pests and Diseases (Sheep and Goats)

Zone/State	Disease or Pest	Location of incidences	Total stock of animal	№ of animals affected	% mortality	№ vaccinated or treated	№ culled due to infection
South-West							
Ekiti	Helminthiasis	Ekiti	25000	2500	-	2500	-
	PPR	Ekiti	5400	2000	-	2000	
	Mange	Ekiti	2000	150	-	150	
Ogun (sheep)	Mange	Ijebu-Igbo					
	Helminthiasis	Ijebu-Ode					
	ORF	Isheri					
Ondo	PPR (Sheep)	State wide	2000	1400	4	1000	320
	PPR (Goats)	State wide	4000	2500	10	2000	100
Osun (sheep)	STS	State wide	60,000	11,500	-	60,000	-
	PPR	State wide	2,500,000	1,850	0.5	1,500,000	-
	Mange	Ilesa	615	280	13	615	-
	Helminthiasis	Ede	420	310	4	420	-
Osun (Goats)	PPR	Agunbelo wo	1,452,000	950	0.53	450,000	-
	Mange	Osu	820	233	6	800	-
	Helminthiasis	Ila	520	123	0.96	520	-
Oyo	Pest	33 LGA	1,500,000	200,000	20	-	1,000,000
South-East							
Anambra (Sheep)	PPR	Otuocha	8	8	25%	8	-
	Mange	Widespread	-	-	-	-	-
	Trypanosoma	Nanka	50	10	-	10	-
Anambra (Goats)	PPR	Agulu	4	4	50	4	-
	Mange	Widespread	-	-	-	-	-
	Trypanosoma	Nanaka	80	30	-	30	-
Ebonyi	PPR	Ikwo	200	15	-	-	-
	Tick Infestation	Afikpa	-	-	-	-	-
Enugu	PPR	Enugu	3567	575	-	575	
		Nsukka			-		
Imo	PPR	Across the State	3000	-	4	340	-
	Mange		1500	-	1	170	

Table 11.4b Cont'd: Livestock Pests and Diseases (Sheep and Goats)

Zone/State	Disease or Pest	Location of incidences	Total stock of animal	№of animals affected	% mortality	№ vaccinated or treated	№ culled due to infection
South-South							
Akwa Ibom	PPR (Sheep)	Oron	3000	1600	2.32	850	-
	PPR (Goats)	State wide	124,000	3850	2.87	300	-
Bayelsa	Mange (Sheep)	Agbura	40	5	-	40	-
	Foot Rot (Sheep)	Swali	40	7	-	40	3
	ORF (Goats)	Nembe	16	4	-	16	-
Cross River	ORF (Sheep)	State wide	1,500,000	1,350,000	10	1,350,000	-
	PPR (Sheep)	-	1,500,000	600,000	60	600,000	-
	Mange (Sheep)	-	1,500,000	1,425,000	5	1,425,000	-
	ORF (Goats)	State wide	5,000,000	5,000,000	10	5,000,000	-
	PPR (Goats)	State wide	5,000,000	1,500,000	70	1,500,000	-
	Helminth (Goats)	State wide	5,000,000	5,000,000	-	5,000,000	-
Edo	PPR (Sheep)	State wide	900,000	70,000			
	Mange (Sheep)	State wide	900,000	36,000			
	Helminthes (Sheep)	State wide	900,000	85,000			
	PPR (Goats)	State wide	1,300,000	650,000			
	Mange (Goats)	State wide	1,300,000	170,000			
	Helminthes (Goats)	State wide	1,300,000	100,000			
Delta	PPR	Across the State	-	-	-	1435	-
	PPR	Across the State	-	-	-	3847	-

Table 11.4c: Livestock Pests and Diseases (Poultry)

Zone/State	Disease or Pest	Location of incidences	Total stock of animal	№ of animals affected	% mortality	№ vaccinated or treated	№ culled due to infection
North East							
Bauchi	NCD	Bauchi	3000	1300	53	970	100
	IBD	Bauchi	500	50	25	25	0
	Fowl Pox	Misau	1000	550	4	543	3
Yobe	NCD	Damaturu	619	-	-	-	-
		Potiskum	360	-	-	-	-
Gombe	NCD	Statewide	-	23,858	-	19,280	-
	IBD	Statewide	-	12,479	-	16,216	-
	Coccidiosis	Statewide	-	33,437	-	-	-
North-West							
Jigawa	NCD	3 ZONES	46,000	16,000	18	41,000	6,000
	IBD	4 ZONES	12,000	2,100	6	1,280	600
	COCCIDIOSIS	4 ZONES	13,241	4,610	12	2,820	1,680
North-Central							
Benue	NCD	Statewide	Numerous	Numerous	High	-	High
	Gumboro		Numerous	Numerous	High	-	High
	Fowl Typhoid		Numerous	Numerous	High	-	High
Kogi	Newcastle	All LGAs	5,000,000				
Kwara	NCD	Ilorin	70,000	70,000	2	70,000	-
	Gumboro (IBD)	Ilorin	70,000	70,000	-	70,000	-
	Fowl Pox	llorin	70,000	70,000	-	70,000	-
Plateau	Salmonellosis	VTH, Jos	1500	450	-	-	-
	Colibaciliosis			420	-	-	-
	NCD			409	-	-	-
South-West							
Ekiti	NCD	Ekiti	15,000	5000	-	10,000	
	Coccidiosis	Ado-ekiti	50,000	5000	2	5,000	1500
	Fowl pox	Ekiti	5,000	15000	-	3,500	
Ondo	Coccidiosis	State wide	40,000	10,280	2	10,000	200
Osun	NCD	Ejigbo	8600	8600	12.2	8600	-
	Gumboro	Egbedi	10200	7500	9.2	10200	-
	Coccidiosis	Ikirun	12,000	6400	10.4	12,000	-
	Fowl Pox	Osogbo	10,650	850	0.69	10650	-
	Mareck	Egbedi	15,000	5000	28	15000	-
	CRD	Inisha	6000	2750	10	6000	-
Oyo	Newcastle disease	Ibadan	100,000	90,000	55	70,000	50,000

Table 11.4c Cont'd: Livestock Pests and Diseases (Poultry)

Zone/State	Disease or Pest	Location of incidences	Total stock of animal	№ of animals affected	% mortality	№ vaccinated or treated	№ culled due to infection
South-East							
Anambra	NCD	Onitsha	1500	500	5	1500	30
	Gumboro	Enugu Agidi	1000	1000	20	1000	-
	Pullorum	Enugu Agidi	3000	3000	10	3000	-
Ebonyi	NCD	Nkaliki	5000	50	-	-	-
Imo	Coocidiosis	Across the State	2600	300	2	450	-
	Newcastle		3200	700	3	550	-
Enugu	NCD	Enugu	120,764	35,000	-	26,017	-
	Gumboro	Enugu	30,000	7,000	-	6720	-
	Coccidiosis	Enugu	18,000	14,000	-	11,840	-
South-South							
Akwa Ibom	NCD	Uyo	400,000	280,000	73.8	280,000	-
		Abak					
		Ikot Epene					
Bayelsa	Coccidiosis	Elebele	500	500	30	500	150
	NCD	Brass	1200	1200	8	1200	100
	ASF	Elebele	60	60	100	-	60
Cross River	NCD	State wide	5,000,000	5,000,000	80	5,000,000	-
	Coccidiosis	State wide	5,000,000	1,500,000	30	1,500,000	-
	Gumboro	State wide	5,000,000	5,000,000	40	5,000,000	-
Edo	Coccidiosis	State wide	4,300,000	2,300,000	-	3,000,000	-
	NCD	State wide	4,300,000	500,000	-	500,000	-
	Helminthiasis	State wide	4,300,000	1,700,000	-	1,700,000	-
Delta	NCD	Across the State	-	-	-	19,750	-
	IBD	Across the State	-	-	-	5040	-
	Fowl Pox	Across the State	-	-	-	8050	-
	Fowl Typhoid	Across the State	-	-	-	10,560	-
	Coocidiosis	Across the State				15,807	-

Table 11.4d: Livestock Pests and Diseases (Swine)

Zone/State	Disease or Pest	Location of incidences	Total stock of animal	№ of animals affected	% mortality	№ vaccinated or treated	№ culled due to infection
North-East							
Bauchi	African swine fever	T/Balewa	50	24	4	15	5
Gombe	ASF	Statewide	-	532	-	-	-
	Diamond Skin Disease	Statewide	-	214	-	-	-
	Helminthiasis	Statewide	-	870	-	-	-
North-Central							
Benue	ASF	Statewide	Numerous	Numerous	High	-	High
	Helminthiasis		Numerous	Numerous	High	-	high
Kogi	Ectoparasite	All LGAs	20,000				
	Helminthes						
	Nutrition problem						
Plateau	ASF	-	16	-	-	-	-
Taraba	ASF		3880	315	89	-	-
South-West							
Ekiti	Helminthes	Ekiti	5000	5000	-	5000	-
	Piglet Anaemia	Ekiti	3000	3000	-	3000	-
Lagos	African Swine Fever	State wide		All animals	100	-	-
Ondo	Helminthiasis	State wide	1000	500	-	500	-
Ogun	Helminthiasis	Ijebu-Igbo	-	-	-	-	-
	ASF	Ewekoro	-	-	-	-	-
Oyo	ASF	Ibadan	3000	1000	33.3	-	1000
South-East							
Anambra	ASF	Umuchu	100	100	35	100	
Ebonyi	ASF	Onimiri	25	10	10	-	-
Enugu	ASF	Enugu	5674	436	-	436	
		Nsukka			-		
	Tryps	Enugu	4210	205	-	205	
		Nsukka			-		
South-South							
Akwa-Ibom	Swine fever	Ikot Abasi	50,000	32,000	63	31,500	-
	Helminthes	Uyo					
		Iniono Ibom					
Bayelsa	ASF	Elebele	60	60	100	-	60
Cross River	ASF	State wide	2,500,000	2,250,000	10	2,2550,000	
	Helminths	State wide	2,500,000	2,250,000	-	2,250,000	
Edo	ASF	State wide	300,000	35,000	-	35,000	-
Delta	ASF	Statewide	-	5220		1092	-

11.3 Livestock-Related Facilities in Nigeria

Livestock-related facilities were shown in Tables 11.5 to 11.11. Nigeria livestock industry is blessed with a lot of facilities. However, more facilities are still needed to meet up the demands for animal sources of protein by ever increasing population of humans in the country.

Table 11.5: Livestock-related facilities in Nigeria (Slaughter slab)

Agro-ecological zone	Slaughter Slab/Abattoirs		Status		Remarks
	№	Location	Functional	Non-functional	
North-East					
Adamawa	12	21 Local Government Areas			
Bauchi	180	All wards across the State			
North-West					
Kaduna	23	All across the State			
Katsina	33	Statewide		One per each of the 33 LGAs	One per each of the 33 LGAs
North-Central					
FCT	12	Bwari, Karshi, Apo roundabout, etc.		The slaughter slab in Apo is illegal	
Nasarawa	Scattered across the State	Across the State	All functional		
Plateau	51	17 LGAs			
South-West					
Lagos	10	Across the State	Functional		
Ogun	53	Statewide	Functional		
Ondo	51	Statewide		Statewide	Statewide
Osun	248	Statewide			
Oyo	12	Across the State	Functional		
South-East					
Anambra	43	21 LGAs			
Imo	27	Statewide			
South-South					
Edo	67	Statewide		Renovation was done on 7 slaughter slabs	Renovation was done on 7 slaughter slabs

Table 11.6: Livestock-related facilities in Nigeria (Feed mills)

	Feed mill		
Agro-ecological zone	**Number**	**Location**	**Functionalily**
North-East			
Bauchi	1	Bauchi	
Yobe	5	Across the State	
North-West			
Kaduna	3	Zaria and Kaduna	Functional
North-Central			
FCT	4	Kuje	
Nasarawa	1	Lafia	Functional
Niger	4	Minna	
South-West			
Ekiti	1	Odo Ado	
Ogun	64	Statewide	Functional
Ondo	15	Statewide	
Osun	210	Statewide	
Oyo	120	Statewide	Functional
South-East			
Anambra	11	7 LGAs	
South-South			
Edo	1	Benin	

Table 11.7: Livestock-related facilities in Nigeria (Veterinary clinics)

Agro-ecological zone	Veterinary Clinics		Status		Remarks
	Number	Location	Functional	Non-functional	
North-East					
Bauchi	40	All over the State			
North-West					
Katsina	28	28 LGAs	15	13	
North-Central					
FCT	4	Bwari, Nyanya			
Nasarawa	6	Akwanga, Doma, Keffi, Lafia, Nasarawa and Obi	Functional		
South-West					
Ekiti	9	Ado Ekiti, Ikole and Ijero			To be rehabilitated
Lagos	7	Across the State	Functional		
Ogun	11	Ita Eko, Ijebu-Ode, Ijebu Igbo, Sagamu, Ipokia, Aiyetoro, Imeko, Ilaro, Obafemi Owode			
Ondo	23	Statewide			
Osun	7				
Oyo	3	Ibadan	Functional		
South-East					
Anambra	41	Various LGAs			20 for private investments and 21 for LGAs
Imo	5	Across the State			
South-South					
Edo	36	Statewide			

Table 11.8: Livestock-related facilities in Nigeria (Grazing Reserve)

	Grazing Reserve		Status		
Agro-ecological zone	**Number**	**Location**	**Functional**	**Non-functional**	**Remarks**
North-East					
Bauchi	80	All over the State			
Yobe	32	Across the State			
North-West					
Kaduna	16	All across the State			
Katsina	1	Safana			
North-Central					
FCT	3	Bwari, Karshi, Paikon-Kora			
Nasarawa	6	Awe, Keana, Wamba, Kurudu, Asakio and Gitata	Not fully functional		
Niger	23	Bobi			
South-West					
Ogun	1	Imasi			
South-South (Ranches)					
Edo		Irele			Uncompleted

Table 11.9: Livestock-related facilities in Nigeria (Tanneries)

	Tanneries		Status		
Agro-ecological zone	**Number**	**Location**	**Functional**	**Non-functional**	**Remarks**
North East					
Adamawa	2	Yola			
Bauchi	2	Azare and Bauchi			
North West					
Katsina	1	Daura			
North Central					
Nasarawa	3	Akwanga, Lafia and Keffi	Yes		
Plateau	10	Jos North			2 standard and 8 local tanneries
South West					
Lagos	1	Oko-Oba	Functional		
Oyo	1	Ibadan	Non-functional		
South East					
Anambra	1	Ufuma			

Table 11.10: Livestock-related facilities in Nigeria (Hatcheries)

	Hatcheries		Status		
Agro-ecological zone	**Number**	**Location**	**Functional**	**Non-functional**	**Remarks**
North East					
Yobe	1	Potiskum		Not functional	Replacement needed
North West					
Kaduna	2	Kaduna and Zaria	Functional		
Katsina	1	Funtua			
North Central					
FCT	2	Lugbe and Kabusa			Privately owned
Nasarawa	1	Lafia	Yes		
South West					
Ogun	1	Emuren	Functional		
Oyo	1	Fasola	Non-functional		
South East					
Anambra	2	Awka and Ojoto			

Table 11.11: Livestock-related facilities in Nigeria (Ranches and Ranges)

Agro-ecological zone	Hatcheries Number	Location	Status Functionalily	Non-functional	Remarks
North East					
Bauchi	2	Drz and Galambi			
Yobe	3	Across the State			There are 34 rangelands in the State
North West					
Katsina	4	Dutsen-Ma			3 out the 4 ranches are not accessible due to activities of bandits. There are 10 rangelands in Safana
North Central					
FCT	2	Bwari			
South West					
Ogun	2	Imota, Kobape			
Ondo	1	AkunnuAkoko			
Osun	3	Ife, Iwo, Osogbo			
Oyo	100	Statewide	Functional		
South East					
Anambra	4	Aguata and Orunba North			1 in Aguata and 3 in Orumba North
South South					
Edo	3	Igarra	Non-Functional		Range fields are found in Ubiaja for agripreneurs

11.4 Major Livestock Markets in Nigeria

Table 11.12a showed the major markets across the ecological zones. The specific markets for cattle, sheep goats, poultry and swine were listed. The volumes of trades in some of the different markets were reported in Table 11.13a, b and c.

Table 11.12: List of major livestock markets in Nigeria

Agro-ecological Zone/State	Cattle	Sheep	Goats	Poultry	Swine
North East					
Adamawa	Mubi international market	Mubi international market	Mubi international market	-	Numan
	Ganye int'l market	Ganye int'l market	Ganye int'l market	-	-
	Song cattle market	Song cattle market	Song cattle market	-	-
	Norore cattle market	Chigari cattle market	Norore cattle market	-	-
	Chigari cattle market	-	Chigari cattle market	-	-
Bauchi	Mararaban Liman Katagum	Mararaban Liman Katagum	Mararaban Liman Katagum	Toro	Bogoro
	Azare cattle market	Nabordo L/Market	Nabordo L/Market	Durum poultry market	T/Balewa
	Alkaleri cattle market	Gamawa L/Market	Gamawa L/Market	Kafin Madaki market	Boi
	Soro Cattle Market	Gaide L/Market	Azare L/market	Miya market	Yalwa – Bauchi
	Gamawa Cattle Market	Darazo L/market	Daben Fulani Livestock	Soro poultry Market	Gobiya
Gombe	Gombe main market	Gombe main market	Gombe main market	-	-
	Bajoga/Kuruku	Bajoga/Kuruku	Bajoga/Kuruku	-	-
	Lalaippido/Kashere	Lalaippido/Kashere	Lalaippido/Kashere	-	-
	Maikaijo	Maikaijo	Maikaijo	-	-
	Kuri/kumo	Kuri/kumo	Kuri/kumo	-	-
Yobe	Damaturu Cattle market	Geidam sheep market	Potiskum	Potiskum	-
	Garin Alkali cattle market	Garini sheep market	Babbangida	Bade	-
	Damaturu market	Potiskum market	Garin Alkali	Nguru	-
	Nguru cattle market	Pounri-yali market	Nguru	Geidam	-
	Geidam cattle market	Ngurur market	Geidam	Damaturu	-

Table 11.12 Cont'd: List of major livestock markets in Nigeria

Agro-ecological Zone/State	Cattle	Sheep	Goats	Poultry	Swine
North West					
Zamfara	Gusau	Gusau	Gusau	Gusau	-
Jigawa	Shuwarin Town	Balangu Town	Gujungu Town	Dutse L/Market	-
	Gujungu Town	Garun gabas	Garki Town	Hadejia Town	-
	Maigatari Town	Malam madori Town	Gumel Town	Birnin Kudu Town	-
	Sara town	Kafi Hausa Town	Hadejia town	Kumpsa Town	-
	Garon town	Birniwa Town	Sara Town	Garun gabas Town	-
Kaduna	Kasuwan Magani	Anchau	-	Railway Station	Kafancha
	Zangon T/Wada	Makarfi	-	Waff Road	-
	Lambar Zango	Jere ATC Market	-	-	-
	Gadar Gayan	Tudun Tsaibu	-	-	-
	Mariri Market	-	-	-	-
Katsina	Charanchi	Charanchi	Charanchi	Charanchi	-
	Mai adua	Mai aduwa	Mai aduwa	Kankia	-
	Jibiya	Jibyia	Jibiya	Katsina	-
	Dankama	Mashi	Ajiwa	Mashi	-
	Sheme	Kagadama	Dutsinma	Dutsinma	-
North Central					
Benue	Makurdi Int'l Cattle market	Makurdi Int'l Cattle market	Makurdi Int'l Cattle market	Otukpo Market	Tsar market
	Katsina_Ala cattle market	New garage Market, Otukpo	New garage Market, Otukpo	Makurdi modern market	-
	Otukpo-Livestock market	Gboko main market	Gboko main market	Gboko market	-
	-	Katsina_Ala cattle market	Katsina_Ala cattle market	Wurukum market	-
	-	-	-	Wadata market	-
FCT	Dei Dei	Dei Dei	Dei Dei	Dei Dei	-
	Dakwa Market	Dakwa Market	-	-	-
	Bwari Market	Bwari Market	-	-	-
	Mpape Market	Mpape Market	-	-	-
	Kubwa Market	Kubwa Market	-	-	-

Table 11.12 Cont'd: List of major livestock markets in Nigeria

Agro-ecological Zone/State	Cattle	Sheep	Goats	Poultry	Swine
North Central					
Kogi	Lokoja	Lokoja	Lokoja	Lokoja	-
	Ajaokuta	Okene	Ofu (Itobe)	Okene	-
	Adavi	Ankpa	Yagba West (Egbe)	Kabba	-
	Yagba West (Egbe)	Anyigba	Okene	Anyigba	-
	Omala (Bagana)	Kabba	Anyigba (Dekina)	Ankpa	-
Kwara	Baruba	-	-	-	-
	Kaiama	Kaiama	Kaiama	-	-
	Share	Share	Share	-	-
	Ajase Ipo	Ajase Ipo	Ajase Ipo	-	-
	Patigi	Patigi	Patigi	-	-
Nasarawa	Lafia cattle market	Across the State	Across the State	Across State	Assakio, Lafia
Niger	Kowa/Jebba	Lambata Market	-	Minna	Gwada
	Kuta Market	Wuya Market	-	Bida	Adamu
	Tungan Mallam	Wawa market	-	Sulja	Gaba
	Befi Market	Kawo Market	-	Kontagora	-
	Izom Market	Zuba	-	Mokwa	-
Plateau	Amper	Amper	Amper	-	Amper
	Kurgwi	Kurgwi	Kurgwi	Kurgwi	Kurgwi
	Jengre	Jengre	Jengre	Jengre	-
	Miango	Miango	Miango	Miango	-
	Dengi	Dengi	Dengi	Dengi	-
Taraba	Iware (Ardo Kola)	Iware	Iware	-	-
	Garba Chede (Bali)	Mararrabar kunmi	Nguroje	-	-
	Nguroje (Sardauna)	Nguroje	Tella	-	-
	Bantage (Wukari)	Banatge	-	-	-
	Tella (Gassol)	Tella	-	-	-
South East					
Anambra	Amansea cattle Market	Oye Nimo	Old timber Awka	Eke Awka	-
	Oye Uga Cattle Market	Nkwo Omor	Tampo Umunya	Afor Nnobi	-
	Ogbunike Cattle Market	Nkwo Igbo-Ukwu	Olympic Park	Ose Iweka Markets	-
	Awka Etiti	Olympic Park	Oye Nimo	Afor Npor	-
	Tampo Umunya	Oye Uga	Kara Market Okpoko	Kara Market Okpoko	-

Table 11.12 Cont'd: List of major livestock markets in Nigeria

Agro-ecological Zone/State	Cattle	Sheep	Goats	Poultry	Swine
South East					
Anambra	Amansea cattle Market	Oye Nimo	Old timber Awka	Eke Awka	-
	Oye Uga Cattle Market	Nkwo Omor	Tampo Umunya	Afor Nnobi	-
	Ogbunike Cattle Market	Nkwo Igbo-Ukwu	Olympic Park	Ose Iweka Markets	-
	Awka Etiti	Olympic Park	Oye Nimo	Afor Npor	-
	Tampo Umunya	Oye Uga	Kara Market Okpoko	Kara Market Okpoko	-
Ebonyi	Gariki Abakalilki	Eke Imoha	Eke iImoha	Life bird market, Abakaliki	Occasionally brought to the markets or sold at owners farm
	Eke limoha, Izza south	Eke Ifkpo	Nwankwo Ugo Ukawu	Eke Imoha	-
	Hausa Quarters	Igbojo	Garki Hausa Quarters	Eke Afikpo	-
	Effium market, Ohaukwu	Orice Egbe	Orie Egbe	Eke Okposi	-
		Nkwuegu Izzi market	Eke Afikpo	Orie Egbe	-
Enugu	New Ertisan market	New Ertisan market	New Ertisan market	Old Artisan Market	-
	Garki Awk, market	Garki Awk, market	Garki Awk, market	Ogbete market	-
	Ugwuoba L/Stock market	Ugwuoba L/Stock market	Ugwuoba L/Stock market	Aria market	-
	-	-	-	Abakpa Nike market	-
Imo	Obinze Market (Owerri West)	Obinze Market (Owerri West)	Obinze Market (Owerri West)	Relief Market (Owerri)	Eke Atta Market (Ikeduru)
	Afor Ogbe (Ahia Azu Mbaise)	Afor Ogbe (Ahia Azu Mbaise)	Afor Ogbe (Ahia Azu Mbaise)	Orie Amaraku (Isial Mbano)	Oriagu Market (Ehime Mbano)
	Owerri Ebiri (Orlu)	Owerri Ebiri (Orlu)	Owerri Ebiri (Orlu)	Eke Atta Market (Ikeduru)	Eke Okigwe Market (Ikeduru)
	Awo Idemili (Orsu)	Awo Idemili (Orsu)	Awo Idemili (Orsu)		

Table 11.12 Cont'd: List of major livestock markets in Nigeria

Agro-ecological Zone/State	Cattle	Sheep	Goats	Poultry	Swine
South West					
Ekiti	State cattle market	Atikankan market	Atikankan market	Atikankan poultry market	-
	Shasha market	Shasha market	Shasha market	-	-
	Adekunle market	Adekunle market	Adekunle market	-	-
		Adere market	Adere market	-	-
Lagos	Oko-oba, Agege	Oko-oba, Agege	Oko-oba, Agege	Aiyedoto Ojo	Oke-Aro
	Sabo Market	Sabo Market	Sabo Market	Erikorodo, Ikorodu	Gberigbe
	Badagry Market	Alaba Rago	Alaba Rago	Metropolis Market	-
	-	Metropolis Market	Metropolis Market	-	-
Ogun	Isheri Kara	Isheri Kara	Isheri Kara	Olabisi Onabanjo New Market	Ijebu-Igbo
	Atokun	Kuto Market	Kuto Market	Kuto Market	Ipokia and Tubes
	Imowo Market	Imowo Market	Imowo Market	Oke-Aje Market	-
	Lafenwa Cattle Market	Lafenwa cattle Market	Itoku Market	Obada Poultry	-
	Ogere Market	Ogere Market	Ogere Toll Gate	-	-
Ondo	Imo arigidi market	Oja Oba (Oja Ale)	Oja Oba (Oja Ale)	Seja (Irele)	Chiroma (Irele)
	Kara market	Oja Oba (Owo)	Oja Oba (Odo-Ode)	Oja Oba (Akoko NE)	Yaba Olukuta (ore)
	Ado road	Public field (Odo-Ode)	Oke-igbede (Isua)	Oja-Oba (Akura south)	Pig market (Agadagba)
	-	Isua market	Mojere (Btter life)	Odolua (Owena)	Ajagba (Okitipupa)
	-	Mojere (Okeigbede)	Public field (Pata)	Okitipupa (Ajagba)	Sabo Irele (Okitipupa)
Osun	Egbejoda, Sekona	Oja –Oba Market, Osogbo	Oja –Oba Market, Osogbo	Oluode, Osogbo	Atakumosa, Ilesa
	Orisunmibare, Osogbo	Powerline, Osogbo	Powerline, Osogbo	Atakumosa, Ilesa	Elede Market, Osogbo
	Sabo, Ile-Ife	Oja Timi, Ede	Oja Timi, Ede	Sabo, Ile-Ife	Okesa, Ilesa
	Aro-Dapson, Ile-Ife	Araromi Ilesa	Araromi Ilesa	Itagogun, Ile-Ife	Oja Obi Ila
	Egbejoda, Ara Junction	Sabo, Ile-Ife	Sabo, Ile-Ife	Adeke, Iwo	Monday market, Ikirum

Table 11.12 Cont'd: List of major livestock markets in Nigeria

Agro-ecological Zone/State	Cattle	Sheep	Goats	Poultry	Swine
South West					
Oyo	Akinyele	Akinyele	Saki	Oyo (Ilora)	Akinyele
	Iseyin	Oranyan	Kishi	Awe	Ogbomoso
	Ago are	Bodija	Akinyele	Mokola	Oyo
	Oyo	Oyo	Oranyan	Bodija	Lalupon
	Igbeti	Iseyin	Bodija	Sasa	Igboora
South South					
Bayelsa	Swali	Swali	Swali	Swali	
	Bayelsa Palm	Kaiama	Bayelsa Palm	Lapansia	
	Kaiama	Tombia	Kaiama	Kaiama	
	Tombia	Sagbama	Tombia	Tombia	
	Sagbanma		Sagbanma	Sagbanma	
Delta	Oko cattle market	Asaba, Oko road market	Asaba, Oko road market	Asaba (Oko, Midwifrey, Ogbedgongo market)	Out-Jemi
	Agbor Cattle market	Oleh ruminant market	Oleh ruminant market	Agbor	Azoro
	Okoanam cattle market	Ughelli, Market	Ughelli,Market	Warri	Sapele
	Warri cattle market	Warri sheep and goat market	Warri sheep and goat market	Sapele	Warri
Edo	Eyean	Aduwawa	Aduwawa	Aduwawa LBM	
	Irua	Eyean	Eyean	Oliha LBM	
	Uromi	Uromi	Uromi	Ekpoma LBM	
	Auchi	Auchi	Auchi	Uromi LBM	
	Okada Junction	Ekpoma	Oliha market	Ekiosa LBM	

Table 11.13a: Volume of trades of livestock in major livestock markets in Nigeria (North-East and North-West)

Agro-ecological Zone	Livestock Market	Livestock type											
		Cattle		**Sheep**		**Goats**		**Poultry**		**Swine**		**Camel/Donkey**	
North-East		2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020
Adamawa	Mubi international market	24,000	18,000	20,000	16,000	18,000	14,000	-	-	-	-		
	Ganye int'l market	20,000	10,000	16,000	14,000	14,000	12,000	-	-	-	-		
	Song cattle market	12,000	10,000	10,000	3,000	10,000	9,000	-	-	-	-		
	Norore cattle market	18,000	14,000	-	-	12,000	10,000	-	-	-	-		
	Chigari cattle market	10,000	8,000	10,000	5,000	8,000	6,000	-	-	-	-		
	Numan Market	-	-	-	-	-	-	-	-	10,000	8,000		
Bauchi	M/ Liman katagum	62,400	43,500	36,400	18,00	41,600	15,700	-	-	-	-		
	Azare cattle market	26,00	13,000	-	-	18,200	6,500	-	-	-	-		
	Alkaleri cattle market	18,200	10,300	-	-	-	-	-	-	-	-		
	Soro Cattle Market	10,400	7,500	-	-	-	-	-	-	-			
	Gamawa Cattle Market	20,800	11,800	27,560	13,700	18,000	9,200	-	-	-	-		
	Nabordo L/Market	-	-	23,400	9.600	20,800	7,100	-	-	-	-		
	Gaide L/Market	-	-	14,040	5,030	-	-	-	-	-	-		
	Darazo L/market	-	-	10,500	4,000	-	-	-	-	-	-		
	Daben Fulani Livestock	-	-	-	-	11,440	5,900	-	-	-	-		
	Toro	-	-	-	-	-	-	104,000	70,000		-		
	Durum poultry market	-	-	-	-	-	-	15,000	8,500	-	-		
	Kafin Madaki market	-	-	-	-	-	-	15,600	5,300	-	-		
	Miya market	-	-	-	-	-	-	23,400	9,150	-	-		
	Soro poultry Market	-	-	-	-	-	-	16,200	8,360	-	-		
	Bogoro	-	-	-	-	-	-	-	-	200	70		
	T/Balewa	-	-	-	-	-	-	-	-	100	50		
	Boi	-	-	-	-	-	-	-	-	100	60		
	Yalwa – Bauchi	-	-	-	-	-	-	-	-	50	20		
	Gobiya	-	-	-	-	-	-	-	-	80	35		

Yobe	Damaturu Cattle market	89,681	49,612	-	-	-	-	-	-	-	-		
	Garin Alkali cattle market	73,200	41,716	-	-	-	-	-	-	-	-		
	Damaturu market	46,001	32,196					22,186	19,176	-	-		
	Nguru market	53,190	25,616	46,121	26,201	28,179	19,616	20,001	19,001	-	-		
	Geidam market	71,246	36,176	96,001	56,126	10,246	19,616	18,167	16,762	-	-		
	Garini sheep market	-	-	83,203	43,168	-	-	-	-	-	-		
	Potiskum market	-	-	53,000	38,001	79,123	53,127	28,179	21,176	-	-		
	Pounri-yali market	-	-	2,681	19,167	-	-	-	-	-	-		
	Babbangida	-	-	-	-	12,616	11,716	-	-	-	-		
	Garin Alkali	-	-	-	-	83,203	52,616	-	-	-	-		
	Bade	-	-	-	-	-	-	19,216	16,616	-	-		-
Gombe	Gombe main market	180,200	93,600	25,520	28,600	31,200	36,400	-	-	-	-	-	-
	Bajoga/Kuruku	117,000	109,200	26,520	44,200	41,600	73,320	-	-	-	-	-	-
	Lalaippido/Kashere	145,600	161,200	58,240	62,400	72,800	83,200	-	-	-	-	-	-
	Maikaijo	93,600	100,360	29,120	32,760	31,200	40,040	-	-	-	-		-
	Kuri/kumo	169,000	182,520	169,000	182,320	75,400	94,120	-	-	-	-	-	-
	Pantami	-	-	106,000	-	210	-	-	-	-	-	-	-
	Balanga	-	-	40,000	-	-	-	-	-	-		-	
	Dadin Kowa	-	-	-	-	123,000	-	-	-	-	-	-	-
	Dukku	-	-	-	-	96,800	-	-	-	-	-	-	-
	Tashan Dukku	-	-	-	-	-	-	560	-	-	-	-	-
	Tashan Shonga	-	-	-	-	-	-	375	-	-	-	-	-
	Riyal Bye Pass	-	-	-	-	-	-	247	-	-	-		
	Biliri	-	-	-	-	-	-	-	-	278	-	-	-
	Kaltungo	-	-	-	-	-	-	-	-	256	-	-	-
	Bo	-	-	-	-	-	-	-	-	219	-	-	-
	Lakweme (Donkey Market)	-	-	-	-	-	-	-	-	-	-	410	-

North-West													
Jigawa	Shuwarin Town	1500	3500	-	-	-	-	-	-				
	Gujungu Town	2600	4000	-	-	5000	6000	-	-				
	Maigatari Town	4000	7000	-	-	-	-	-	-				
	Sara Twn	1100	1500	-	-	5000	7000						
	Garin gabas	800	1200	1600	2100	-	-	40,000	43,000				
	Balangu Town	-	-	2000	2600								
	Birniwa Town	-	-	2800	3400								
	Mallam madori Town Town	-	-	2700	4000	-	-	-	-				
	Kafin hausa Town	-	-	1800	2900	-	-	-	-				
	Garki Town	-	-	-	-	1200	1400	-	-				
	Gumel Town	-	-	-	-	1600	2000	-	-				
	Dutse L/Market	-	-	-	-	-	-	50,000	40,000				
	Hadeijia Town					2800	4000	27,000	40,000				
	Birnin Kudu Town	-	-	-	-	-	-	46,000	51,000				
	Kumpsa town							71,000	64,000				

Table 11.13b: Volume of trades of livestock in major livestock markets in Nigeria (North-Central)

Agro-ecological Zone	Livestock Market	Livestock type									
		Cattle		Sheep		Goats		Poultry		Swine	
North-Central											
FCT	Dei Dei	24,167	6,770	10,000	63,981	10,000	45,074	114,854	57,678	-	-
	Dakwa Market	45	50	128	133	-	-	-	-	-	-
	Bwari Market	205	215	80	92	-	-	-	-	-	-
	Mpape Market	319	355	105	120	-	-	-	-	-	-
	Kubwa Market	185	202	96	101	-	-	-	-	-	-
	Kugbo	7,500	-	2000	-	-	-	-	-	-	-
	Tungan Maje	1,600	-	-	-	-	-	-	-	-	-
	Gwagwalada	-	-	-	-	-	-	6,000	-	600	-
	Kuje	-	-	-	-	-	-	6,000	-	-	-
	Abaji	-	-	-	-	-	-	7,100	-	500	-
Kwara	Ilesha Baruba	78,000	40,000	-	-	-	-	-	-	-	-
	Kaiama	18,200	10,500	5200	3000	1560	900	-	-	-	-
	Share	31,200	18,000	7800	4500	2080	1200	-	-	-	-
	Ajase Ipo	36,400	21,000	7500	4000	2600	1500	-	-	-	-
	Patigi	13,000	7,500	2600	1500	1040	600	-	-	-	-
Taraba	Nguroje	55,136	21,162	18,320	4615	11,312	-	-	-	-	-
	Garba Chede	15,601	7106	-	-	-	-	-	-	-	-
	Bantaje	38,100	9,005	21,428	7012	40,012	-	-	-	-	-
	Iware	41,002	15,202	43,118	8123	45,201	15,623	-	-	-	-
	Tella	44,312	18,142	50,018	11,113	50,513	1,201	-	-	-	-
	Mararra Baissa	20,142	-	18,520	-	28,881	-	-	-	-	-
Plateau	Kanke(Amper)	17822	11,330	20,927	15,113	21,581	14,300	-	-	49,182	20,546
	Kurgwi	118	75	283	97	791	162	1,981	915	63	15
	Jengre	20,641	5193	9655	2185	10,840	2,365	15,461	3,247	-	-
	Miango	578	44	416	121	985	510	4379	1226	-	-
	Dengi	2984	145	5586	896	3902	1460	21,123	18,150	-	-

Benue	Makurdi Int'l Cattle market	780,000	500,000	900,000	600,000	1,600,000	1,300,000	-	-	-	-
	Katsina_Ala cattle market	120,,000	100,000	100,000	90,000	950,000	500,000	-	-	-	-
	Otukpo-Livestock market	100,000	85,000	-	-	-	-	2,000,000	1,300,000		
	New Garage Mkt, Otukpo	-	-	190,000	161,500	900,000	600,000	-	-	-	-
	Gboko main Market	-	-	180,000	150,000	999,000	800,000	2,800,000	2,400,000	-	-
	Makurdi Modern mkt	-	-	-	-	-	-	1,200,000	1,250,000	-	-
	Wurukum mkt	-	-	-	-	-	-	1,500,000	1,600,000	-	-
	Wadata Mkt	-	-	-	-	-	-	1,800,000	1,200,000	-	-
	Tsar market	-	-	-	-	-	-	-	-	500,0000	400,0000

Table 11.13c: Volume of trades of livestock in major livestock markets in Nigeria (South-West and South-South)

Agro-ecological Zone	Livestock Market	Livestock type									
		Cattle		Sheep		Goats		Poultry		Swine	
South-West											
Oyo	Akinyele	168,000	1,200,000	71,000	110,000	12,000	12850	-	-	1000	2000
	Iseyin	12,500	12,500	15,000	15,000	-	-	-	-	-	-
	Ago are	16,000	16,000			-	-	-	-	-	-
	Oyo	8,000	8,500	20,000	20,000	-	-	75,000	76,000	5000	6500
	Igbeti	6,500	10,500	-	-	-	-	-	-	-	-
	Oranyan	-	-	72,100	73,200	80,000	85,005	-	-	-	-
	Bodija	-	-	4,294	19,500	6,111	18,500	18,000	19,500	-	-
	Saki	-	-	-	-	7,000	8555	-	-	-	-
	Kishi	-	-	-	-	8,000	9,000	-	-	-	-
	Awe	-	-	-	-	-	-	50,650	60,340	-	-
	Mokola	-	-	-	-	-	-	10,000	11,000	-	-
	Sasa	-	-	-	-		-	16,000	17,000	-	-
	Ogbomoso	5250	-		-	-	-	-	-	13,500	14,095
	Lalupon	-	-	-	-	-	-	-	-	2000	3200
	Igboora	-	-	-	-	-	-	-	-	3000	3400
	Alesinloye	-	-	3,718	-	4,416	-	-	-	-	-
	Iwo Road Express	-	-	4,920	-	5,041	-	-	-	-	-
	Budo Musa	11,650	--	-	-	-	-	-	-	-	-

Lagos	Oko-oba, Agege	2,880,000	1,900,000	1,000,000	1,000,000	1,600,000	800,000	-	-	-	-
	Sabo Market	72,000	48,000	1,000,000	1,000,000	1,600,000	800,000	-	-	-	-
	Badagry Market	108,000	72,000	-	-	-	-	-	-	-	-
	Alaba-Rago	-	-	1,000,000	1,000,000	1,600,000	800,000	-	-	-	-
	Metropolis Market	-	-	1,000,000	1,000,000	1,600,000	800,000	8,000,000	6,000,000	-	-
	Aiyedoto Ojo	-	-	-	-	-	-	8,000,000	6,000,000	-	-
	Erikorodo, Ikorodu	-	-	-	-	-	-	8,000,000	6,000,000	-	-
	Oke-Aro	-	-	-	-	-	-	-	-	1,500,000	1,000,000
	Gberigbe	-	-	-	-	-	-	-	-	1,500,000	1,000,00
Agro-ecological Zone	**Livestock Market**	**Livestock type**									
		Cattle		**Sheep**		**Goats**		**Poultry**		**Swine**	
South-West											
Ogun	Isheri Kaara	106,161	71,603	23,825	3,008	8,790	6,392	-		-	-
	Atokun	67,626	22,390	-	-	-	-	-	-	-	-
	Imowo market	8,821	2,426	7,716	1,815	7,503	2,313	-	-	-	-
	Lafenwa Market	33,925	16,523	-	-	-	-	-	-	-	-
	Ogere Toll Gate	239,381	85,418	371,333	67,084	474,196	71,225	-	-	-	-
	Kuto Market	-	-	-	-	-	-	6,500	4,125	-	-
	Olabisi Onabanjo New Market	-	-	-	-	-	-	2,860	1,050	-	-
	Oke-Aje Market	-	-	-	-	-	-	4000	3600	-	-
	Obada Poultry	-	-	-	-	-	-	5000	3500	-	-
	Ijebu-Igbo	-	-	-	-	-	-	-	-	351	216
	Ipokia and Tubes	-	-	-	-	-	-	-	-	151	87

Osun	Egbejoda, Sekona	15,000	16,000	-	-	-	-	-	-	-	-
	Orisunmibare, Osogbo	30,000	25,000	-	-	-	-	-	-	-	-
	Sabo, Ile-Ife	25,000	20,000	300,000	290,000	240,000	203,000	480,000	420,000	-	-
	Aro-Dapson, Ile-Ife	5,000	4,000	-	-	-	-	-	-	-	-
	Egbejoda, Ara Junction	70,000	50,000	-	-	-	-	-	-	-	-
	Oja –Oba Market, Osogbo	_	_	180,000	15,000	160,000	100,000	-	-	-	-
	Powerline, Osogbo	-	-	300,000	240,000	240,000	184,000	-	-	-	-
	Oja Timi, Ede	-	-	240,000	180,000	136,000	120,000	-	-	-	-
	Araromi Ilesa	-	-	300,000	240,000	140,000	136,000	-	-	-	-
	Oluode, Osogbo	-	-	-	-	-	-	1,000,000	989,000	-	-
	Atakumosa, Ilesa	-	-	-	-	-	-	840,000	920,000	63,000	65,000
	Itagogun, Ile-Ife	-	-	-	-	-	-	240,000	200,000	-	-
	Adeke Iwo	-	-	-	-	-	-	15,000	12,000		
	Elede market, Osgbo	-	-	-	-	-	-	-	-	26,000	13,000
	Okesa Ilesa	-	-	-	-	-	-	-	-	8,000	7,000
	Oja Obi, Ila	-	-	-	-	-	-	-	-	17,000	13,000
	Monday Market, Ikirum	-	-	-	-	-	-	-	-	9,000	11,000

South-East											
Ebonyi	Gariki Abakaliki	1,350,000	1,400,000	-	-	-	-	-	-		
	Eke Imoha, Izza South	610,000	230,000	1,020,000	1,050,000	1,320,000	1,420,000	1,410,000	1,420,000	-	-
	Garki Hausa Quarters	220,000	230,000	-	-	1,600,000	1,700,000	-	-	-	-
	Effium market, Ohaukwu	325,000	350,000	-	-					-	-
	Eke Afikpo	-	-	150,000	160,000	153,000	155,000	330,000	375,000	-	-
	Igbojo			100,000	150,000	-	-	-	-	-	-
	Orie Egbe	-	-	255,000	370,000	-	-	430,000	475,000	-	-
	Nkwuegu Izzi	-	-	120,000	162,000	-	-	-	-	-	-
	Nwankwo Ugo Ukawu	-	-	-	-	200,000	250,000	-	-	-	-
	Onegbe	-	-	-	-	252,000	355,000	-	-	-	-
	Life bird market, Abakaliki	-	-	-	-	-	-	4,670,000	5,600,000	-	-
	Eke Okposi	-	-	-	-	-	-	305,000	310,000	-	-
Imo	Obinze Market (Owerri West)	1,500	1,600	106	170	1,000	1,500	-	-	-	-
	Afor Ogbe (Ahia Azu Mbaise)	1,850	1,900	620	750	1,550	1,600	-	-	-	-
	Owerri Ebiri (Orlu)	1,000	1,150	-	-	160	175	-	-	-	-
	Awo Idemili (Orsu)	3,500	3,500	250	350	160	185	-	-	-	-
	Other centres in Imo	105	100	-	-	-	-	-	-	-	-
	Relief Market (Owerri)	-	-	-	-	-	-	8,500	9,000		
	Orie Amaraku (isiala Mbano)	-	-	-	-	-	-	5,060	6,500		
	Eke Atta Market (Ikeduru)	-	-	-	-	-	-	3,750	4,500	2,905	3,500
	Oriagu Market (Ehime Mbano)	-	-	-	-	-	-	-	-	3,800	4,00
	Eke Okigwe	-	-	-	-	-	-	-	-	2500	300

South-South										**-**	
Akwa Ibom	Amansea cattle Market	9267	2956	-	-	-	-	-	-	-	-
	Oye Uga Cattle Market	4420	1800	-	-	-	-	-	-	-	-
	Ogbunike Cattle Market	3018	1600	-	-	-	-	-	-	-	-
	Tampo Umunya	-	-	-	-	600	250	-	-	-	-
	Oye Nimo	-	-	50	15	520	120	-	-	-	-
	Nkwo Omor	-	-	45	21			-	-	-	-
	Nkwo Igbo-Ukwu	-	-	-	-	-	-	-	-	-	-
	Old Timber Awka	-	-	-	-	2300	1200	-	-	-	-
	Olympic Park	-	-	13,816	6300	18320	5380	-	-	-	-
	Kara Market Okpoko	-	-	-	-	10750	2390	600,000	200,000	-	-
	Eke Awka	-	-	-	-	-	-	749,000	416,838	-	-
	Afor Nnobi	-	-	-	-	-	-	1,500,000	697,530	-	-
	Ose Iweka markets	-	-	-	-	-	-	250,000	130,000	-	-
	Afor Nkpor	-	-	-	-	-	-	100,000	38,000	-	-
	Uyo	1,345	-	-	-	10,634	-	554,000	-	-	-
	Ekpene Ukpa, Etinam	-	-	247	-	7,245	-	347,635	-	-	-
	Ikot Enwang, Ikot Epene	-	-	165	-	3,200	-	-	-	-	-
Edo	Eyean	-	600,000	-	50,000	-	200,000	-		-	-
	Irua	-	70,000	-	-	-	-	-		-	-
	Uromi	-	80,000	-	30,000	-	200,000	-	600,000	-	-
	Auchi	-	100,000	-	75,000	-	70,000	-		-	-
	Okada Junction	-	70,000	-	-	-	-	-	-	-	-
	Aduwawa	-	-	-	50,000	-	200,000	-	800,000	-	-
	Ekpoma	-	-	-	30,000	-	-	-	500,000	-	-
	Oliha market	-	-	-	-	-	200,000	-	500,000	-	-
	Ekiosa LBM	-	-	-	-	-	-	-	500,000	-	-

Delta	Asaba, oko road market	-	-	12,000	482	493	346	-	-	-	-
	Oleh ruminant market	-	-	360	180	318	104	-	-	-	-
	Ughelli market	-	-	340	120	436	117	-	-	-	-
	Warri sheep/goat market	-	-	316	241	1100	217	-	-	-	-
	Ubiaruku	-	-	117	83	218	117	-	-	-	-
	Sapele	-	-	-	-	-	-	-	-	-	-
Bayelsa	Swali	9,324	10,726	25,200	26,400	7800	8500	1,200,000	1,500,000	12,600	15,000
	Bayelsa Palm	1600	2050	-	-	3200	3800	-	-	-	-
	Kaiama	1800	2100	180	220	3600	4200	550,000	680,000	-	-
	Tombia	6324	6726	320	450	6100	6700	1,100,000	1,100,500	-	-
	Sagbanma	1900	2500	120	145	2300	2900	600,000	750,000	-	-
	Lapansia	-	-	-	-	-	-	900,000	1,000,000	-	-

11.5: Livestock Production Inputs

Table 11.3 shows the livestock production inputs procured and distributed in 2019 and 2020 by some States. The States include Gombe (North East), FCT and Taraba (North Central), Katsina (North West), Osun and Ondo (South West), Anambra (South East), Delta and Cross River (South South). Poultry feed, supplements and items/equipment were prominent among the inputs procured and distributed in 2019 and 2020. Contagious bovine pleuropneumonia (CBPP) and *Peste des petits ruminants* (PPR) vaccines were purchased and distributed by Gombe State in 2020. Across all the 9 States, the major animals procured were day-old-chicks and turkey poults. Ondo is the only State that procured turkey poults and weaner goats but distributed none. Osun State procured the highest number of day-old-chicks in both 2019 (200,000) and 2020 (44,000) respectively. Construction of snail hutches (42) was made by Delta State and distributed. Disinfectants (Quaternary ammonium) and insecticide (Cypermethrin) were procured and distributed by Anambra State. Most procured livestock inputs were distributed in 2020.

Table 11.14: Livestock Production Inputs in 2019 and 2020

State	Type of inputs	Quantity Procured		Quantity Distributed	
		2019	2020	2019	2020
North-East					
Gombe	CBPP Vaccine	-	600,000	-	588,754
	PPR Vaccine	-	400,000	-	397,261
North-Central					
FCT	3 weeks old broiler	2500	120	2500	In the process
	Poultry drinker	150	-	150	-
	Poultry feeders	150	-	150	-
	Starter Mash	150	-	150	-
	Finisher's Mash	150	-	150	-
	Vitamin Supplements	100	-	100	-
Taraba	Ruminant feed distribution	-	24,000	-	24,000
	Mineral salt lick (blocks)	-	9,000		9,000
North-West					
Katsina	Fortified wheat offal	40,000	-	-	40,000
	Mineral salt (5kg block)	16,000	-	-	16,000
South-West					
Osun	Day-old-chicks	200,,000	44,000	200,000	44,000
Ondo	Day old chicks	1800	400	1800	-
	Turkey Poults	-	200	-	-
	Weaner goats	-	5	-	-
South-East					
Anambra	Quaternary Ammonium (liters)	-	144	-	144
	Cypermethrin (bottles)	-	40	-	40
South-South					
Delta	Hutches (for snail)	-	-	-	42
Cross River	Day old chick	-	4000	-	4000

11.6 Livestock Production-Related Risks

Table 11.14a shows the information on the farmers-pastoralist conflict and the extent of damage caused. The conflict for 2020 was recorded from 20 States across 5 agro-ecological zones excluding North West. No livestock loss was recorded in Bauchi, Gombe (North East), FCT, Nasarawa, Plateau, Kogi (North Central), Ekiti, Ondo (South West), Ebonyi (South East) and Delta (South South). Human lives lost as a result of farmers-pastoralist conflict were numerous in Benue, 11 in Bauchi, 7 in Imo, 5 in Akwa Ibom and 1 in Gombe. Oyo recorded the highest livestock lost (450) in 33 LGAs with regular occurrence of the farmers-pastoralist conflict. Ondo recorded a weekly occurrence of the conflict State wide with no property, livestock and human life lost. There was also no record on lives, properties and livestock recorded in Kogi, Ebonyi and Delta States.

Cattle rustling incidence were rampant in the 10 States recorded during agricultural season of 2020 (Table 11.4b). Majority of the rustling cases recorded were from the North Central (Nasarawa, Taraba and Plateau) and South South (Delta), though no live, livestock or property was lost. Edo occasionally recorded cattle rustling attack with the highest number of livestock lost (200) followed by Bauchi (16). Akwa Ibom is the only State that recorded a live lost.

Kidnapping has always been a threat to farmers and their properties. Table 11.4c shows record of kidnapping cases in 2020. Plateau, Edo and Delta recorded frequent attack but no livestock or human life was lost. FCT and Niger (North central) recorded the highest (35) human lives lost and the highest number (70) of livestock lost, respectively. As a life threatening case, kidnapping attack has been recorded in 15 States with little or no life lost.

Table 11.15a: 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					
Bauchi	2	Alkaleri	-	-	-
	1	Misau	-	-	11
	1	Darazo	-	-	-
	1	Jama'are	-	-	-
Gombe	2	Nafada	-	Crops	1
		Kalsisingi	-		
		Wawazange	-		
North-Central					
FCT	3	Kuje and environ	-	-	-
Nasarawa	Numerous times	State wide	-	-	-
Taraba	6	Wukar Takumbi	50	-	-
Plateau	2-3 times/ year	Bassa	-	-	-
	2-3 times/year	Bokkos	-	-	-
	2-3 times/year	B/Ladi	-	-	-
	2-3 times/year	Riyom	-	-	-
	2-3 times/year	L/North	-	-	-
Benue	Intermittent	Guma	Many	Numerous	Numerous
		Logo			
		Agatu			
		5LGAs			
Kogi	6	Omala	-	-	-
	3	Kabba	-	-	-
	5	Dekina	-	-	-
	2	Okene	-	-	-
South-West					
Ekiti	1	Orin	-	-	-
Ondo	Weekly	Across the State	-	-	-
Osun	30	Esa -Oke	4	-	-
	40	Iba	4	-	-
	30	Osogbo	6	-	-
	30	Iwo	4	-	-
	20	Ede	8	-	-
Oyo	Regularly	33 LGA	450	-	-
	Regularly	33LGA	-	-	-
	Regularly	33LGA	-	-	-

South-East					
Anambra	Often	Igbakwu	4	-	-
	Often	Urum	15	-	-
	Often	Achalla	32	-	-
	Often	Umumbo	16	-	-
	Often	Ifite-Ogwari	108	-	-
	Often	Umueri	13	-	-
Imo	3-4 times/year	Across the State	50-200	-	7
Ebonyi	Irregularly	Iboko	-	2	-
		Igbagu	-	-	-
		Ugwuechara	-	-	-
		Okpitumo	-	-	-
		Amagu Oniha	-	-	-
South-South					
Akwa-Ibom	4 years	Oruk Anam	2	-	-
		MkpaEnin	50	-	5
		Uyo	15	-	-
		Etinan	12	-	-
Cross Rivers	1	Bekwarra	11	-	-
	1	Balepopu	-	-	-
	1	Yala	3	-	-
	1	Obubra	7	-	
Edo	Frequently	Ologbo	10	-	-
	Frequently	Odiguete	10	-	-
	Frequently	Oyuo	10	-	-
	Frequently	Esan	10	-	-
Delta	Very frequently	Delta North Delta Central	-	-	-

Table 11.15b: Information on cattle rustling and the extent of losses recorded

Agro-ecological Zone	Frequency of occurrence	Location	№ of livestock lost	№ of human life lost
North-East				
Bauchi	2	Tirwun	10	-
	1	Gubi	4	-
	1	M/L KTG	2	-
NorthCentral				
FCT	1	Kuje and Environ	-	-
Nasarawa	Numerous times	State wide	-	-
Taraba	15	Several	-	-
Plateau	Frequent	Bokkos	-	-
	Frequent	Bassa	-	-
	Frequent	B/Ladi	-	-
	Frequent	Wase	-	-
Kogi	-	Omala	-	-
	-	Kogi	-	-
	-	Dekina	-	-
	-	Adavi	-	-
South-West				
Ondo	Monthly	Across the State	-	-
South-South				
Akwa Ibom	3 years	MkpaEnin	2	1
		Ibiono Ibom	-	-
		Oruk Anam	2	-
		Ukanafun	2	-
Edo	Occasionally	Agenebode	50	-
	Occasionally	Okada	70	-
	Occasionally	Okpella	80	-
Delta	Frequently	State wide	-	-

Table 11.15c: Information on kidnapping and the extent of losses recorded

Agro-ecological Zone	Frequency of occurrence	Location	№ of livestock lost	№ of human life lost
North-East				
Gombe	-	Kumo	-	-
		Kaltungo	-	-
Bauchi	5	Ganjuwa	20	-
	7	Toro	30	-
	4	Alkaleri	15	-
Gombe	1	Katsa Bolawa	-	2
	22	Kashere	-	2
North-Central				
FCT	204	Kuje and environ	-	35
Taraba	20	Several	-	Several
Plateau	Frequent	Bassa	-	-
	Frequent	Bokkos	-	-
	Frequent	B/Ladi	-	-
Niger	4	-	70	Unspecified
Kogi	-	Okehi	-	-
	-	Kogi	-	-
	-	Bassa	-	-
South-West				
Osun	1	Esa-Oke	-	1
South East				
Enugu				
Imo	4-5 times/year	Owerri West, Ohaji Egbema	-	9
South-South				
Cross Rivers	5	Calabar	3	1
		Akpabuyo	1	
		Bakassi	1	
Edo	Frequently	Okada	-	-
	Frequently	Auchi	-	-
	Frequently	Ekpoma	-	-
	Frequently	Odiguetue	-	-
Delta	Frequently	State wide	-	-

12.0 FISHERIES PRODUCTION SITUATION

Aquaculture production output in 2020 as compared to 2019 shown in (Table 12.1a) revealed that only 23 States including FCT provided data. Marginal increases were recorde in production in 2020 in some States in the North with a decreasing trend in the Southern States. This decrease in production may not be unconnected with increased cost of input which may have arisen as a result of COVID-19 pandemic lockdown and restrictions on movements for economic activities.
There is paucity of data for artisanal fisheries production in 2020 in all the agro-ecological zones (Table 12.1b); although Lagos, Ekiti, Delta and Imo State had data for 2020 which showed a decrease in production compared to 2019.

Data on inputs situation revealed that only 7 States and the FCT procured and distributed various fisheries inputs to farmers, some of the inputs procured and distributed are catfish fingerlings, fish feeds, fishing nets, outboard engine fishing boats, collapsible tarpaulin ponds, cold store and smoking kilns. These inputs were provided to farmers at subsidized rates.

The quantity of fresh and smoked fish marketed (Table 12.3) in 2020 shows that catfish species were the most traded fish species in all the States reported. This invariably showed that catfish is the most abundant and populous fish species cultured in Nigeria. This is followed by Tilapia species. Other fish species traded are Heterobranchus species, Heterotis species, Labeo species, *Lates niloticus* etc. Captured fisheries provided most of the fish species traded both fresh and smoked in all the States. This is an indication of pressure on wild fish stock due to reduction in aquaculture production output. This may affect the stock in the artisanal fisheries in the long run hence aquaculture production needs to be encouraged by provision of the necessary production inputs.

Table 12.1a: Aquaculture Production in States in 2019 and 2020

Zones/State	Species	Production in 2019 (MT)	Production in 2020 (MT)
North East			
Bauchi	*Clarias sp.*	92,019	5038.11
	Tilapia sp	61,346	504.7
	Heterobranchus sp	46.88	39.85
	Heteroclarias	15.4	13.09
Yobe	*Catfish*	11,000	15,840
	Tilapia	9,250	12,500
	Citharinus spp	3,000	5,250
	Bony tongue	3,100	600
North West			
Katsina	*Clarias sp*	982.21	2,864
	Tilapia sp	514.20	1,969
	Heterotis sp	106	101
Zamfara	*Clarias sp*	550	565
	Tilapia sp	300	320
North Central			
Benue	*Clarias sp*	5000	3000
	Heterobranchus sp	3000	1500
	Tilapia sp	2000	1000
FCT	*Clarias sp*		
Nasarawa	*Clarias sp*	230	240
	Heterobranchus sp	230	-
	Momyrus	50	-
	Lates	80	-
	Carp	-	50
	Tilapia	-	120
Kwara	*Clarias sp*	**2103.61**	2105.81
	Tilapia sp	3.61	3.58
Kogi	*Clarias sp*	15	378.15
	Heterobranchus sp	6	56.7
	Heterotis spp	72.9	19.75
	Lates niloticus	4.97	2.59
	Gymnachus	3.72	1.02
Taraba	*Clarias sp*	18,013	-
South-West			
Ekiti	*Clarias sp*	2002	2601
Lagos	*Clarias spp*	**35,524**	**26,642**
Ondo	*Clarias sp*	-	-
Osun	*Clarias sp*	22,000	19,500
	Tilapia sp	17,900	20,000
	Heterotis sp	67	70
Oyo	*Clarias sp*	32,000	
	Tilapia sp	1,100	
Ogun	*Clarias spp*	1659	829,795

	Tilapia spp	600	250
South-East			
Abia	***Clarias sp***	**1,800**	-
	Heterobranchus sp	**1,700**	-
Ebonyi	*Clarias sp*	6000	7000
	Heterobranchus sp	3000	3000
Imo	*Cat Fish*	**21,000**	22,000
	Tilapia	1,500	1,200
South-South			
Akwa-Ibom	*Catfish*	14,800	587.39
	Tilapia sp	1,442.52	339.32
	Croaker	260.66	130.33
	Bonga	49.1	24.56
	Grunters	38.63	19.32
	Sardinella	145.17	72.59
Cross-River	*Clarias sp*	800	830
	Heterobranchus	25	33
	Heterotis	800	810
Rivers	*Clarias sp*	40.33	-
	Crayfish sp	8.6	-

Table 12.1b: Artisanal Fisheries Production in States in 2019 and 2020

Zones/State	Species	Production in 2019 (MT)	Production in 2020 (MT)
North West			
Jigawa	Tilapia spp	1000	-
	Clarias spp	2100	-
	Late niloticus	200	-
	Bagrus bayad	300	-
Katsina	Catfish	982.21	
	Tilapia	514.2	
	Bagrus	138	
	Schilbe	26	
	Heterobranchus	17.5	
	Alestes	22	
Zamfara	Clarias	550	
	Tilapia	300	
	Synodontis	245	
	Labeo	234	
North Central			
FCT	Clarias sp	1,688	
Kwara	Clarias sp	2,103.61	
	Oreochromis	3.53	
	Polypterus	0.89	

Kogi	Clarias sp	15	
	Heterobranchus sp	6	
	Synodontis	7	
Nasarawa	Clarias sp	230	
	Heterobranchus sp	230	
	Momyrus sp	45	
	Lates niloticus	100	
Niger	Clarias sp	43,076	
South-West			
Lagos	Catfish	137,919	103,439
Ekiti	Catfish	635	622
Ondo	Catfish	52,000	
Oyo	Clarias	32,000	
	Tilapia	1,100	
	Heterotis	520.50	
	Lates	3,730.65	
	Hepsetus	160.80	
	Snake head	312	
	Bagrus	121	
	Chrysichtyhs	1360	
	Synodontis	320	
	Prawn	412	
South-East			
Imo	Cat Fish	1000	300
	Tilapia	2,500	3000
South-South			
Akwa-Ibom	Clarias	14,800	
	Barracuda	1,552.85	
	Bonga	36,233.18	
	Croaker	12,422.80	
	Grunter	3,105.7	
	Mackerel	2,070.48	
	Mullet	1,552.85	
	Sardinella	2,070.47	
	Snapper	1,242.28	
	Tilapia	1,442.52	
	Shining nose	2,173.99	
Rivers	Cray fish	10.07	
	Sadinella	1.20	
	Bonga sp	0.74	
Delta	Catfish	53,737	26,840

Table 12.2: Fisheries Input Situation in the States

Zones/State	Types of input	Quantity Procured		Quantity Distributed		Remarks
		2019	2020	2019	2020	
North-West						
Katsina	Fingerlings	15,000		15,000		
	Fish feeds	300bags		300bags		
	Borehole	3		3		
North-Central						
FCT	Cold storage facility	10	15	10	15	
	Fish feed	300	400	300	400	
	Collapsible fish tanks	22	10	22	10	
	Smoking kiln	10	10	10	10	
South-West						
Lagos	Outboard Engine	28	43	28	43	
	Fish feed	2800	3200	2800	3200	
	Cages	40		40		
Ondo	Juvenile	15,000	3,000	15,000	-	
	Fish net		$1800m^2$	-	-	
	Pond x 3		$1800m^2$	-	-	
	Pumping machine		1	-	-	
	Lime		75kg	-	-	
	Smoking kiln	-	-	2		
Osun	Net	100	-	100	-	
	Rope	65	-	65	-	
	Twine	74	-	74	-	
Ogun	Agric lime	2 Mt		2 Mt		
	Canoe	1		1		
	Smoking kiln	12		12		
	Outboard Engine	1		1		
South-South						
Delta	Fish feeds	-	9,540	-	9,540	
	Fingerlings	-	180,000	-	180,000	

Table 12.3: Fresh and Smoked Fish Traded in the States

Zones/State	Quantity of fresh fish traded (MT)			Quantity of Smoked Fish Traded (kg)	
	Culture/Capture	2019	2020	2019	2020
North-East					
Bauchi	Clarias spp	4340.01	3779.09	1483.00	1269.70
	Tilapia	445.04	126.18	148.35	378.50
	Heterobranchus sp	35.16	29.89	11.72	9.97
	Heteroclarias	11.35	9.82	4.05	3.27
	Synodontis	241.63	279.02	80.54	93.01
	Labeo	346,01	294.10	115.34	98.04
	Lates	383.80	326.23	127.93	108.74
Yobe	Clarias spp	850	1000	260	890
	Tilapia	950	120	143	125
	Bony tongue	150	140	120	140
	Lung fish	50	70	43	40
	Carp	240	200	250	210
North-West					
Jigawa	Tilapia	500	-	1500	-
	Lates niloticus	300	-	1200	-
	Clarias spp	500	-	1500	-
	Hetrotis niloticus	200	-	500	-
	Bagrus bayad	200	-	700	-
Katsina	Catfish	1696	1517	1590	1418
	Tilapia	2008	1419	360	209
	Lates	260	201	86	60
Zamfara	Clarias sp	340	251	210	111
	Tilapia sp	122	106	178	100
North-Central					
FCT	Clarias spp	3.09	1.35		
	Ice (Frozen fish)	1400	7506		
Benue	Clarias spp	4500	2300	2500	1500
	Heterobranchus spp	2500	1200	1500	1000
	Tilapia spp	1800	1200	1900	1300
	Aletes spp	2500	1600	2000	1300
	Synodontis spp	2000	1300	1800	1200
Kogi	Clarias sp	351	236	17,273	7941
	Heterobranchus	63	35	960	1194
	Oreochromis	58.63	28	8794	2876
	Heterotis sp	24.8	4.89	292	100
	Lates	2.04	0.49	50	30
	Gymnachus sp	1.7	0.1	251	87
Nasarawa	Clarias spp	150	450	210	600
	Heterotis	25			
	Heteroranchus spp	80	60	50	68

Kwara	Clarias Spp	2009.73	2304.12	245.30	364.55
	Heterobranchus spp	7.85	5.125	-	-
	Tilapia	0.88	-	-	-
	Electric catfish	0.1	0.43	-	-
Taraba	Clarias spp	5403		14508	
South-East					
Ebonyi	Clarias sp	5000	7000	5000	6000
	Heterobranchus sp	2000	1000	1000	2000
	Tilapia sp	3000	2000	2000	2000
	Bonga fish sp	1000	1000	2000	1000
South-West					
Lagos	Catfish	99,179	120,730	138,172	92,920
	Tilapia	118,833	120,904	89,110	92,102
	Heterotis	10,120	9,103	7,108	7,509
	Gymnachus	68,814	75,310	15,078	20,500
	Chrysichthys	95,077	96,001	48,122	50,148
	Croaker	12,897	12,418		
	Grunthers	7,079.8	6,745.75		
	Shiny nose	169,373.4	171.192.6	72,103	93,100
	Redsnapper	11,102	115,102	87,113	89,106
Ekiti	Clarias sp	1001	130	200	800
	Tilapia sp	71.82	95.3	300	150
	Heterobranchus sp	10	15	50	280
	Heterotis sp	5	2	200	300
Oyo	Clarias spp	36,240	39,860	-	-
	Tilapia	1420	1700	-	-
	Heterotis spp	841	925	-	--
	Lates niloticus	3927	4320	-	-
	Gymnachus	2945	3240	-	--
Ogun	Catfish	500	270	-	-
	Tilapia	360	250	-	-
	Heterotis	700	400	-	-
	Lates	200	100	-	-
	Momyrus	500	200	-	--
	Crayfish	400	200	-	-
	Crabs	500	200	-	-
South-South					
Akwa-Ibom	Catfish	118.715	59.36	32.17	16.09
	Cray fish	408.06	204.03	110.58	55.29
	Croaker	205.08	102.54	55.58	27.79
	Grunters	30.39	15.20	8.24	4.12
	Sardinella	114.22	57.11	30.95	15.48
	Tilapia	11.57	3.68	3.14	1.57
	Snapper	35.79	17.9	9.7	4.85
	Shiny nose	52.12	16.56	14.12	7.06

Cross-River	Clarias sp	80	-	250	280
	Heterobranchus sp	30	-	175	181
	Heterotis niloticus	120	-	300	307
	Tilapia sp	1880	-	1,120	1230
	Mugil (Mulet)	40	-	60	68
	Snappers	100	-	50	70
	Silver Catfish	150	-	1800	1820
	Snake head	42	-	1,500	1580
	Sadinella	250	--	2,000	2118
	Momyridae	35	-	25	30
Delta	Heterobranchus spp	9,435	9,870	2,940,000	3,070,500
	Clarias spp	17,365	15,051	4,419,000	4,624,800
	Hybrid (Hetero-Clarias)	8,730	9,223	2,439,000	2,501,740
	Channa obscura	6,800	7420	1,510,000	1,622,580
	Nile Perch	2,100	3154	602,000	393,000
	Citharinus spp	2,730	3980	820,000	940,000
	Gymnachus spp	3,465	3350	974,000	9,990,000
	Tilapia spp	5,210	5470	1,620,000	1,640,000

13.0. IMPACT OF COVID-19 ON AGRICULTURAL PRODUCTION IN NIGERIA

13.1. Preambles

The Corona virus pandemic also known as COVID-19 is an ongoing global health challenge affecting many lives and families of which Nigeria is not an exception. It is caused by a severe acute respiratory syndrome coronavirus (SARS-CoV2). The out-break was first identified in Wuhan, China in December 2019 and it became an outbreak of international public health concern on 30th January 2020 and a pandemic on 11th march 2020. This pandemic has affected over 29 million lives all over the world and about 56,478 in Nigeria. Different measures have been implemented to reduce its spread by various nations of the world including Nigeria. The Nigerian government implemented the lockdown in March 2020 to combat the pandemic. This resulted in restricted movement of individuals (agricultural producers and marketers inclusive) as well as commodities with peoples' livelihoods negatively affected.

Agricultural producers and marketers constitute a significant component of the Nigerian economy. Their products are the major sources of food to the Nigerian populace and are essential in building body cells and the immune system of the human body against this virus. In spite of massive engagement in agriculture by its population, Nigeria is facing a major crisis in food security arising from inadequate food production, poor yields, poor storage facilities, post-harvest waste, etc. The case is not different for livestock and fisheries production and is further compounded by the pandemic, whereby there has been a decline in productivity and marketing due to restricted movement of agricultural commodities and individuals. The Agricultural performance survey was carried out after the lock down was eased and intra and interState movement was permitted.

The Agricultural Performance Survey 2020 revealed that 99.7% of the farmers were aware of the Covid-19 pandemic and 76% of the farmers received such knowledge from community health workers as well as the broadcast media (TV and Radio) through the National Centre for Disease Control (NCDC). Also, from the survey results 4.0% of the sampled farmers reported positive cases of the virus in their community and 79.3% of the farmers were aware of the preventive measures of the disease.

13.2. Effect of CoronaVirus Pandemic on Crop Production and Marketing

The pandemic precipitated disruption of food production systems, and as such posing a great threat to farmers' livelihoods as well as national food and nutritional security. From the survey, 73.1% of the farmers predicted a food shortage, while 68.3% of the crop farmers reported a decline in crop production due to the pandemic. This predicted decline in crop production would have occurred due to inability to carry out farming activity as well as lack of access to crop production inputs (seeds, fertilizer and seedlings) during the period of the lock down. This result

corroborates the estimates of the Economic Community of West African States (ECOWAS) that the COVID-19 pandemic risks food insecurity and nutrition of 50 million people between June and August 2020; and that the pandemic aggravated the prevailing threats of climate change and recurrent drought as well as Fall Armyworm (FAW) and locust infestations in West Africa.

From the survey, farmers reported a shortage in casual labour (67.4%) which may have resulted from restriction in movement within the States. Many farmers (93.5%) across the country reported a sharp increase in market prices of staple food in the months of July and August. The market price of cereals (maize, sorghum and millet) rose from 95.0-150% in Bauchi, Borno, Gombe, Jigawa, Kaduna and Yobe States, whereas for legumes (cowpea), the market price increased by 50-80% in Adamawa, Bauchi, Gombe, Jigawa, Kaduna, Kano, Katsina and Yobe States. This increment in prices of staple food occurred during the lean season and the pandemic also aggravated it.

13.3. Effect of Corona Virus Pandemic on Livestock Production and Marketing

The pandemic adversely affected livestock production as reported in the annual performance survey of 2020. From the survey, 55.7% of the sampled farmers attested to a decline in livestock production in the country. The restriction to movement (intra and inter-State restriction) resulted in increased market prices of livestock inputs such as feed and medication. Similarly, pastoralists experienced shortages in feed due to restricted migration in search of pasture, while poultry producers/marketers experienced shortages in supply of day-old chicks, feed and medication, also there were reported cases of egg-glut as producers could not connect with consumers during the lock down. Accessibility to livestock extensionist and health workers was also hampered due to restricted movements. All these negatively affected livestock/poultry farmer's income and livelihoods during the period of the lock down.

13.4. Effect of Corona Virus Pandemic on Fisheries Production and Marketing

The COVID-19 pandemic affected the fish and seafood value chain globally. Fish farmers in Nigeria had restricted access to fish inputs (fingerlings, feed, medication and fishing implements). Also, debts were incurred in feeding stocks as fish farmers were unable to harvest while producers had problems relating to importation of brood stock. Also, there were disruptions in supply chain as well as decline in production and consumer demand, thus hiking the price of fish and aquatic food.

It was observed that there was a decrease in demand by large-scale buyers particularly restaurants, hospitality and catering sectors due to the lock-down measure implemented by the federal and State governments and this lowered the demand for certain fish products in Nigeria.
A decline in domestic demand has been compounded by a collapse in export markets. The social distance and confinement measures also led to the closure of many fish markets and trade has

been further affected by border closure. These challenges have created further impacts for sale of fresh fish products where demand still exists domestically and internationally. In many places, loss of demand and difficulties in reaching consumers has led to volatile prices. In addition, the health and safety measures implemented reduced labour mobility all along the supply chain. All the proportions reported are presented in Figure 13.1.

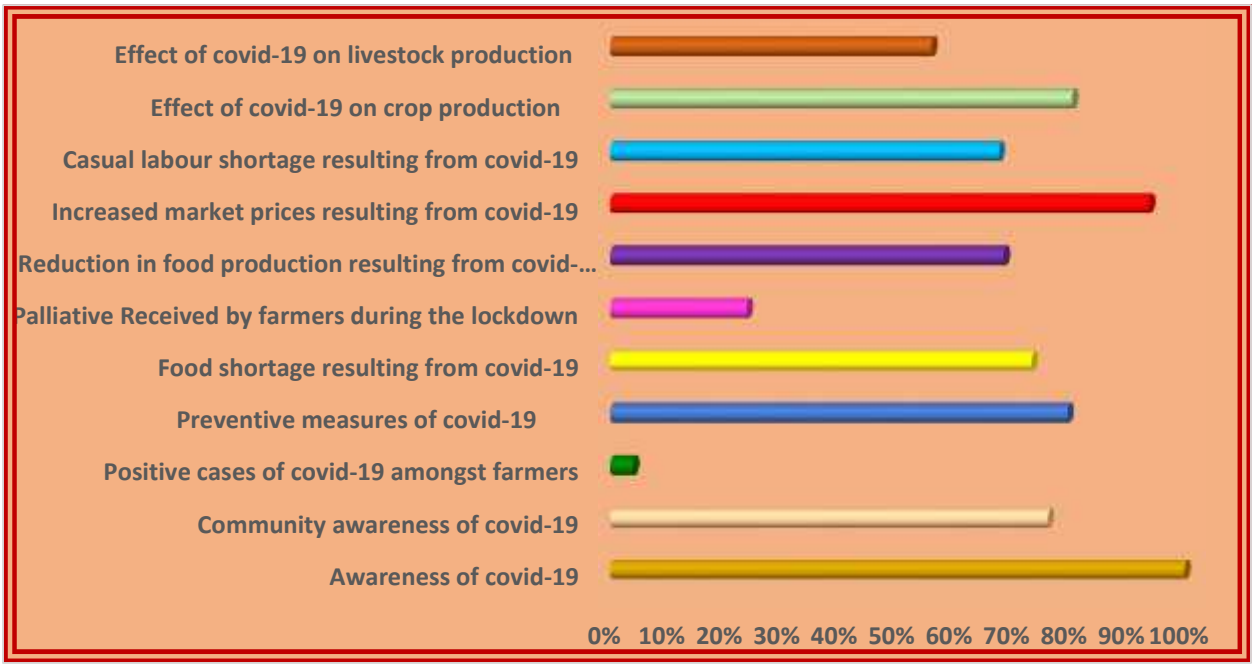


Figure 13.1: Responses of farmers about the COVID-19 Pandemic

13.5. Palliatives received by farmers from federal government and other agencies

The federal government has made some effort to reduce the effect of COVID-19 pandemic on the agricultural value chain. One of which is the distribution of about 70,000 metric tonnes of grains from the strategic food reserve across the country. However, from the survey, only 23.7% of the farmers benefited from the palliatives. The Central bank of Nigeria (CBN) also improved its funding to the agricultural sector and reduced interest rates on existing intervention funding from 9 % to 5% during the lock down.

Also, the Federal Government in collaboration with the Consultative Group on International Agricultural Research (CGIAR) developed strategies to facilitate free movement of food and agricultural inputs to some selected States which included improved seeds of sorghum, pearl millet, cowpea and rice as part of an initiative to cushion the pandemic's impact on food systems. These States were selected based on the importance of sorghum and millet as food crops and access of partners to needy smallholder farmers.

To mitigate the impact of COVID-19 pandemic and contribute to building sustainable food system and security, the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) developed a three-phase response plan namely: the recovery and coping phase, adaptive phase and transformative phase in West and Central Africa. ICRISAT in partnership with the government of Nigeria distributed high quality seeds to 10,000 farmers as a support initiative to shield them from the impact of COVID-19 and lockdown measures.

14.0 FLOOD DAMAGE ASSESSMENT

14.1. Flash Flood Occurences

Flooding occurs in Nigeria annually with devastating impacts on the poor and vulnerable populations who live along the river basins. The Nigeria Hydrological Services Agency (NIHSA) predicted a total of 28 States and 102 Local Government Areas of the States will be at risk of heavy flooding in the year 2020. According to the Agency the flood projections will vary from moderate to severe flooding in most parts of the country. This warning was meant to plan for flood preparedness, mitigation and responses.

The report from the 2020 survey confirmed the occurrences of flood in some States as predicted by NIHSA. According to the reports as shown in Table 14.1, twenty-four States in the six agro-ecological zones experienced flood. Table 14.2, 14.3, 14.4, 14.5, 14.6.and 14.7 show the impact of flood according to agro ecological zones. The tables show the States affected, LGAs affected, crops/infrastructures affected, the month of flood and the severity of damages. Different species of crops were affected. Houses, crops, bridges and human life were also lost. Flood situations were reported in almost all the States in Northern Nigeria with the exception of Benue State. However, flooding was reported in six States in the Southern part of the country (Table 14.1).

Table 14.1: States that were affected by flood according to agro-ecological zones

Zone	Affected State
North East	Adamawa, Bauchi, Borno, Gombe, Yobe
North West	Jigawa, Kaduna, Kano, Katsina, Kebbi, Sokoto, Zamfara
North Central	FCT, Kogi, Kwara, Nasarawa, Niger, Plateau, Taraba
South West	Lagos
South East	Anambra, Ebonyi, Imo
South South	Cross River, Edo

Table 14.2: Impact of flood in the North-East Zone in 2020

State	LGA	Commodity/Infrastructure affected	Month	Severity of damages
Adamawa	Yola North	Crops and houses	July	>25%
	Yola South	Crops and houses	July	>25%
	Numan	Rice	July	10-25%
	Jada	Rice, maize and Guinea	July	10-25%
	Mayo-Belwa	corn	July	<9%
	Fufure		July	<9%
	Song		July	<9%
	Michika		July	<9%
	Mubi-South		July	<9%
Bauchi	Gamawa	Maize, Millet, G/corn, rice	August	10-25%
	Dambam		August	10-25%
	Misau		August	10-25%
	Shira		August	10-25%
	Warji		August	10-25%
	Jammare		August	10-25%
	Katagum		August	10-25%
	Alkeleri		August	10-25%
	Bauchi		August	10-25%
	Zaki Kirfi		August	10-25%
Borno	Damboa	Crops and houses	August	<10%
	Konduga	Crops and houses	August	<10%
	Maiduguri	Crops and houses	August	<10%
Gombe	Akko	Crops	June	<10%
	Kaltungo	Crops	June	<10%
	Kwami	Assets	May	10-25%
	Dukku	Crops	June	<10%
	Billiri	Crops	May	10-25%
	Gombe	Assets	July	10-25%
	Nafada	Assets	July	>25%
Yobe	Fika	Rice, Sorghum, Maize and	August	<10%
		groundnut	August	<10%
	Gulani	Maize and sorghum	August	<10%
	Fune	Houses	August	<10%
	Yunusari	Houses	August	<10%

Table 14.3: Impact of flood in the North-west Zone in 2020

State	LGA	Commodity/Infrastructure affected	Month	Severity of damages
Zamfara	Zurmi	Crops and Houses	August	10-25%
	Tsafe	Crops and Houses	August	10-25%
	Gusau (Damba)	Houses	August	10-25%
Sokoto	Wamakko	Rice/Maize, houses	August	10-25%
	S/North	Rice/Maize	August	10-25%
	Goronyo	Rice/Maize	August	10-25%
	Silame	Rice/Maize	August	10-25%
	Kebbe	Rice/Maize	August	10-25%
Jigawa	Ringim	Houses, Livestock, crops	July and August	10-25%
	Gumel	Houses, Livestock, crops	July and August	10-25%
	Hadejia	Houses, Livestock, crops	July and August	>25%
	Kazaure	Houses, Livestock, crops	July and August	10-25%
	Gwaram	Houses, Livestock, crops	July and August	>25%
Kaduna	Kaduna South	Houses and Animals	August	<10%
	Jamaa		August	<10%
Katsina	Baure	Houses and crops	July	10-25%
	Kaita	Houses and crops	July	
Kano	Rogo	Houses	September	<10%
	Danbatta		September	<10%
Kebbi	Argungu,	Houses and crops	September	10-25%
	Birnin Kebbi,	Houses and crops	September	10-25%
	Bunza,	Houses and crops	September	10-25%
	Suru,	Houses and crops	September	10-25%
	Koko-Besse,	Houses and crops	September	10-25%
	Yauri,	Houses and crops	September	10-25%
	Shanga,	Houses and crops	September	10-25%
	Bagudo,	Houses and crops	September	10-25%
	Maiyama,	Houses and crops	September	10-25%
	Jega	Houses and crops	September	10-25%
	Dandi	Houses and crops	September	10-25%

Table 14.4: Impact of flood in the North-Central Zone in 2020

State	LGA	Commodity/Infrastructure affected	Month	Severity of damages
Taraba	Karim Lamido	Crop, Houses, Livestock	June	10-25%
	Gassol	Crop, Houses, Livestock	June	10-25%
	Donga	Crop, Houses, Livestock	June	<9%
Niger	Suleja	Crops, Livestock	July	<10%
	Bosso	Crops, Livestock	July	<10%
	Agwara	Crops, Livestock	July	<10%
Kogi	Lokoja	Crops and houses	August	10-25%
Kwara	Moro	Crops, Bridges and houses	September	<10%
Plateau	Quam Pan	Houses, crops	August	<9%
	Rikkos			
Nasarawa	Lafia	Rice, Maize	September	10-25%
	Doma	Rice, Maize, Pepper	September	>25%
FCT	Kwali	Crops, Livestock,	July	10-25%
	Abaji	Buildings	July	10-25%
	Gwagwalada	Crops, Livestock, Buildings	July	10-25%
	AMAC	Crops, Livestock, Buildings, Humans	July	<10%
		Crops, Livestock		

Table 14.5: Impact of flood in the South East Zone in 2020

State	LGA	Commodity/Infrastructure affected	Month	Severity of damages
Ebonyi	Afikpo North		July	10-25%
	Ikwo		July	10-25%
Anambra	Ogbaru	Farmland	July	13%
	Anambra West	Poultry, Snail	July	10%
	Anambra East	Sheep & Goat	July	10%
	Ihiala	Yam, Cassava	July	20%
Imo	Uguta	Crops, buildings	July	>25%
	Ehime Mbano	Crops, L/S, farmsteads	July	>25%
	Obowo	Crops, farm roads	July	>25%
	Orsu	Crops, farm roads	July	10-25%

Table 14.6: Impact of flood in the South-south Zone in 2020

State	LGA	Commodity/Infrastructure affected	Month	Severity of damages
Cross river	Abi	Cassava, Rice	June	10-25%
	Biase	Cassava, Animals, Buildings	May, June, July	10-25%
	Bakassi	Cassava, Animals, Buildings	May, June, July	10-25%
	Obubra	Cassava, Buildings	June	<10%
	Akamkpa			<10%
	Ogoja			<10%
Delta		Crop, Houses	August	10-25%

Table 14.7: Impact of flood in the South-West Zone in 2020

State	LGA	Commodity/Infrastructure affected	Month	Severity of damages
Lagos	Ikorodu	Maize, Cassava, Yam, Vegetables, Plantain, Fishes	June and July	<10%
	Epe	Cassava, Vegetables, Ugwu, Water melon, Cucumber, Sheep goats, fishes	May and June	10-25%
	Ijebu Lekki	Sheep, goats and fishes	July	10-25%

Table 14. 8 shows the number of houses destroyed by flood according to States. A total of 62,083 houses were destroyed by flood in 15 States of the federation. The State with the highest number of houses destroyed is Jigawa State (50.000) followed by Kano State (5,200). The least

number of houses destroyed by flood was recorded in Nasarawa State with 6 houses destroyed (Plate 14.1).

Table 14.8: Houses destroyed by flood

State	Number of houses
Jigawa	50000
Kano	5200
Bauchi	3042
Katsina	1800
Edo	1000
Borno	240
Plateau	200
Zamfara	110
Akwa Ibom	100
Sokoto	100
Kwara	100
Gombe	100
Niger	50
Lagos	35
Nasarawa	6

Plate 14.1: Houses submerged by flood in Nasarawa State

14.2. Human Lives Lost

Figure 14.1 shows the total number of people that lost their life due to the flood situations. A total of 86 people was reported dead due to the flood situation that occurred in nine States of Nigeria in 2020. The States are Kano, Sokoto, Jigawa, Kebbi, Gombe, Niger, Bauchi, Nasarawa and Kwara State. The highest number of 20 human life were lost was in Jigawa State.

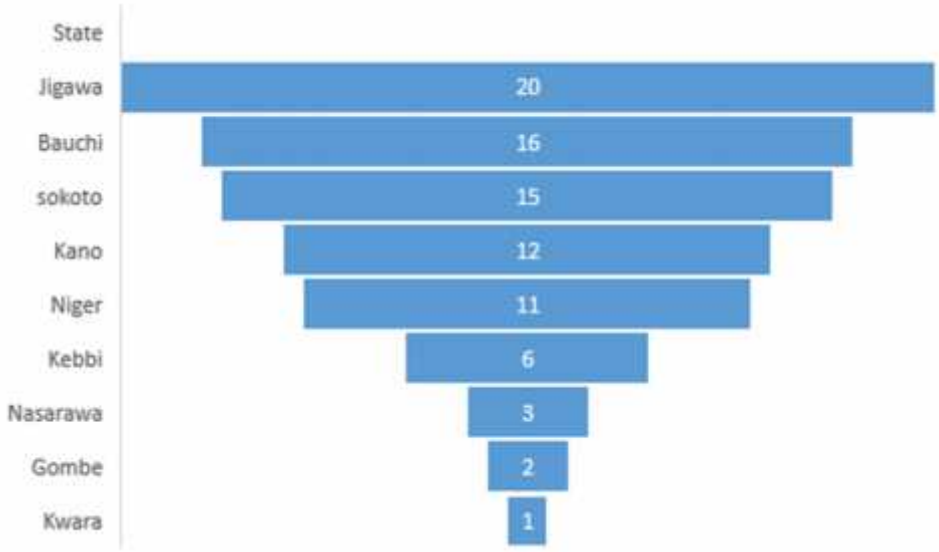


Figure 14.1: Number of life lost due to flood situations according to States

14.3. Number of Displaced People

Figure 14.2 shows the number of people displaced by flood according to States. A total of 37,754 people were reportedly displaced by flood in Six States (Kano, Borno, Zamfara, Katsina, Anambra and Nasarawa) The highest number of people displaced was recorded in Nasarawa State with 20,000 people displaced. Zamfara State also had 10,000 displaced people due the flood situation that occurred in 2020.

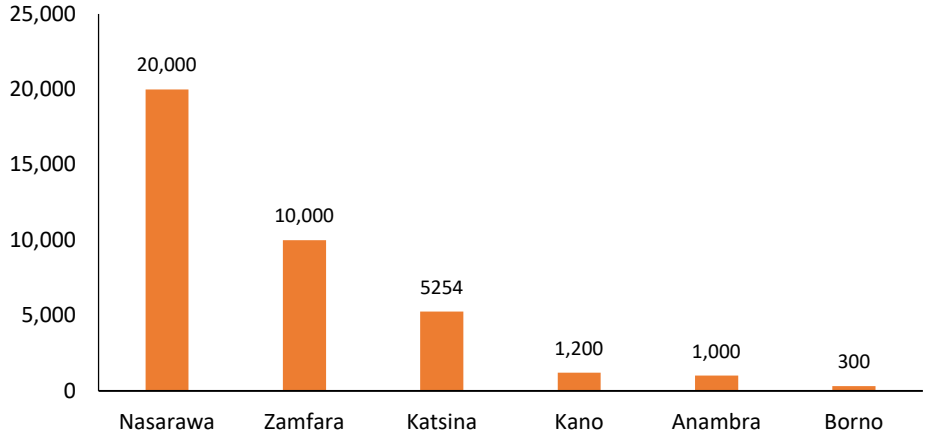


Figure 14.2: People displaced by flood according to States

14.4. Farmland/Crops affected by flood

Over 450,000 hectares of rice plantation were submerged while another 50,000 hectares of crops including millet, sorghum, maize and sugarcane were affected in Kebbi State. Kebbi State is one of the major rice growing States and based on the report from the State it is projected that about 25% of rice planted in 2020 will be lost due to flood. Also, many farmlands with cultivated crops were submerged and damaged (Plate 14.2) in Jigawa State. Based on the reports of the flood situations in Nigeria in 2020, the propensity for crop loss is high and yield from crop production in the affected areas is expected to be low. This will bring some forms of economic losses to the farmers and also possibly affect the value chains of the affected food commodities.

Plate 14.2: Flooded farmlands in Kebbi State

15.0 AGRICULTURAL DEVELOPMENT PROGRAMMES EXTENSION ACTIVITIES

15.1 Funding Situation

Adequate, timely and sustainable funding is the backbone of efficient and effective extension service delivery. The nation's ADPs are funded majorly by State Governments and through special intervention/projects and NGOs domicile within the ADPs. Table 15.1 presents the 2020 funding situation of ADPs in Nigeria. Funding was assessed by comparing the amounts targeted with the amount was received by the ADPs. About 40% of the State ADPs did not provide report on funding. All the States that provided report did not achieve the target. Delta, Ebonyi, and Nasarawa realized more than 50% of the target fund in 2020. Generally, the funding situation in 2020 diminished from the 2019 record.

15.2 Performance Indicators of ADPs

ADP extension performance indicators assessed included extension staff situation, strategies for technology testing and dissemination, technologies and feedback sharing meetings, extension visits and group development and training activities among others as presented in Table 12.2.

15.2.1 Number of Farm Families Reached

Number of farm families is an indication of number of households engaged in any form of agricultural practices for livelihood. Extension agents keep list of farmers within their coverage area. The list is supposed to be regularly updated. Farm families are expected to be reached for technology dissemination. However, ability to reach large number of farm families by the ADPs depends on the number of EAs available as well as provision of tangible mobility for field visit. Regular updating of number of farm families is necessary for effective planning purpose. In fact, the number of farm families determine the number of EAs required by the ADPs. While it is not clear how the ADPs determine the number of farm families, record indicates that Borno and Kano have above 1 million farm families. Also, there is no evidence that the number of farm families achieved were effectively visited.

Table 15.1: Status of ADP Funding in 2019 and 2020

	2019			2020			
	Target	**Achieved**	**%**	**Target**	**Achieved**	**%**	**% diff**
North East							
Taraba	0	-	-	-	83655987.7		-
Gombe	254300000	170850000	-32.82	19900000	3000000	-84.92	-52.10
Bauchi	36108000	300,900,00	-16.67	36108000	-	-	
Yobe	12000000	12000000	100	12000000	5500000	-54.17	-154.17
Adamawa	6000000	6000000	100	-	2100000		
Total NE	**308408000**	**188850000**	**-38.77**	**293393000**	**721205987.7**	145.82	145.82
North Central							
FCT	58330750	6000000	-89.71	81956335	2250000		89.71
Niger	8000000	0	1000000	0	0	0.00	
Plateau	954748956	282366599	29.58				-29.58
Kwara	16336050	1075148.77	93.41	36000000	4380432.29	-87.83	-181.24
Total NC	**1061415756**	**291441747.8**	**-72.10**	**141956335**	**36630432.29**	-94.38	-22.28
South West							
Ekiti	100186989.6	8830	99.99	167242625	-	-	
Ogun	820000000	467428999.9	-42.99646343	711851305	301093383	-57.70	-14.71
Lagos	224000000	144000000		224000000	78000000	-65.18	-65.18
Oyo	415000000	166602215.2		535000000	0	-100.00	-100.00
Ondo	50530000	34996695		107000000	12079000	-88.71	-88.71
Total SW	**1609716990**	**813036740**		**1745093930**	**391172383**	**-77.58**	-77.58
South East							
Abia	12000000	12000000	100	12000000	7000000	-41.67	-141.67
Enugu	30000000	0	0	30000000	0	-100.00	-100.00
Anambra	282000000	35000000	12.41	-	-		-12.41
Ebonyi	110000000	-	0	110000000	100000000	-9.09	-9.09
Total SE	**434000000**	**47000000**		**152000000**	**107000000**		
South-South Zone							
Akwa Ibom	22180000	5000000	-77.46	22180000	1000000	-95.49	-18.03
Bayelsa	10000000	300000	-97	10000000	9000000	-10.00	87.00
Total SS	**32180000**	**5300000**	-83.53	**32180000**	**10000000**	**-68.92**	-68.92

15.2.2 Number of Extension Workers

Extension workers include VEAs, BEA(WIA), and BESs. Effective and efficient extension service delivery is dependent on the quantity and quality of village extension agents (VEAs). Kano State has the highest number (1,105) of VEAs. Other States with significant number of VEAs include Bauchi (266), Niger (221), and Kebbi (156). The least number of VEAs recorded in Rivers (9), Kwara (16), Osun (21), Bayelsa (23), Ekiti (28) and Edo (29). Generally, about 80% of the ADPs have less than 50% of the target number of VEAs. Compared to 2019 record, there was a general decrease in the number of VEAs.

15.2.3 Status of Village Extension Agents' Visits

Field visit by extension agents is the most reliable medium for technology dissemination and information sharing. This is due to the practical nature of agriculture and considering the Nigerian farmers socio-economic and technological circumstances. Importantly, field visit by VEAs can be encouraged by provision of tangible mobility. Adequate supervision is also necessary to ensure adherence with visit schedule. The aggregate number of visits by VEAs is dependent on the number of VEAs on board. Kano State recorded the highest number (1,202,073) of visits to farmers. Other significant visits were recorded in Ebonyi (14,120), Niger (12,830) and Cross River (9,824) States. Limited visits were recorded in Kebbi (16), Edo (192) and Enugu States. There was a general reduction in the number of visits to farmers compared to 2019. This could be due to the lockdown resulting from Covid-19 pandemic.

15.2.4 Technology/Knowledge Sharing, Transfer and Feedback Mechanism

Enshrined in the Research-Extension-Farmer-Input-Linkage System (REFILS) are mechanisms that guarantee efficient flow of technology from research to farmers through regular interaction between research and extension. Such mechanisms include the Monthly Technology Review Meeting (MTRM) and the Forthnightly Training (FNT). While the MTRM is an interaction between the research institute and the ADPs (via the Subject-Matter Specialists), the FNT offers opportunity for subject-matter specialists (SMSs) to train frontline extension workers as well as serving as a forum to receive feedback from farmers. Only 18 States conducted MTRMs, FNTs or both in 2019. The 2020 record revealed a decline from the 2019 achievements.

15.2.5 Technology Dissemination Strategies (OFAR, MTP, SPAT)

Progress in farming practices is highly dependent on availability of proven research outputs/technologies, the adoption of which is capable of increasing farm productivity. 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 adequate provision of input, and should be facilitated by provision of adequate mobility as well as efficient supervision. A cursory look at the available data revealed that technology dissemination is in a critical situation as about

50% of the ADPs did not conduct any of the three trials in 2020. This scenario is worse compared to the 2019 situation. That Nigerian farmers do not have access to improved research efforts can be concluded. List of technologies extended under each of these strategies are presented in Table 12.3.

15.2.6 Farmers' Group Development and Management

One of the major tasks of VEAs is the formation, development and management of farmers' groups across all enterprises. Availability of farmers' groups makes information dissemination faster and saves time and efforts expended by VEAs. Group ensures a good medium of enlightenment for farmers to learn from one another for enhanced productivity. Adequate training in group development and management is a pre-requisite for efficient group formation and development by the VEA. In 2019, Lagos, Kwara, Niger, Gombe and Ekiti States reported the development of 500, 400, 108, 90 and 36 farmers' groups respectively. In 2020, 19 States did not provide report on group development. Generally, there is a decline in status of group formation activities across the country.

15.2.7 Extension Agent-Farmer Ratio (EA: Farmer)

It is recommended that an extension agent should serve between 800 and 1000 farmers. For extension service delivery, the lower the number of farmers to be serviced by VEA; the more efficient the VEA will be (all things being equal). This underscores the need for more extension agents as the number of farm families keep increasing. Trends in the past 10 years revealed a continuous decline in the number of VEAs across the ADPs in the country. In 2019 survey, record revealed that Kano States had desirable (1:900) EA: Farm family ratio while the highest ratios were reported from Katsina (1:10,000), Edo (1:9,375), Ebonyi (1:8,723) Rivers (1:8,435) and Kaduna (1:6500). The 2020 record shows similar ratio.

15.2.8 Trainings of Farmers

Farmers' skill can be enhanced for higher efficiency through regular training and re-training leading to higher productivity. One of the major roles of the ADPs is to ensure regular training (based on identified skill gaps) of farmers across the States. Such training is supposed to be conducted regularly cutting across all the enterprises (crop, livestock, fisheries, agro-processing). Availability of fund and training experts are the drivers of farmers' training. In 2019, information across Nigeria shows that only 6 ADPs conducted farmers' training. There was a sharp decline in the number farmers trained in 2020 across the country.

15.2.9 Status Farmer Field Schools (FFSs)

The farmer field school (FFS) provides a platform for experiential learning through active participation and interaction for information sharing, leveraging on local ecosystem. In 2019,

only 10 ADPs reported activities of FFS. The 2020 record reveals a decline in the number of FFSs.

Table 15.2: Extension Activities/Workers in the North East Zone

State	Years	Target/Achievement	No of Farm Families	SMSs	BES	BEA's/WIA	VEAs	VEAs' Visits	OFARs	SPATs	MTPs	MTRMs / QTRMs	FNTs/MTs	No of Groups /Coops	EA/Farmer Ratio	No of farmers Trained	No of farmers field schools
Adamawa	2019	Tar	-	24	46	46	277	96	-	-	-	-	-	-	1:800	-	-
		Ach	-	18	46	46	126	96	-	-	-	-	-	11,008	1:10,000	2,250	-
	2020	Tar	-	24	46	46	277	96	-	-	-	-	-	-	1:800	-	-
		Ach	-	17	46	46	78	96	-	-	-	-		11,008	1:10,000	-	-
Bauchi	2019	Tar	-	21	33	32	399	-		-	-	12	24	-	-	-	-
		Ach	-	21	33	32	266	-		-	-	0	0	-	-	-	-
	2020	Tar	-	21	33	32	389	-		-	1500	12	24	-	-	-	-
		Ach	-	21	33	32	266	-		-	1224	3	0	-	-	-	-
Borno	2019	Tar	2,500,000	7	27	81	300	-	-	-	-	-	-	-	-	-	-
		Ach	1,500,000	7	27	17	150	-	-	-	-	-	-	-	-	-	-
	2020	Tar	2,500,000	7	27	71	300	-	-	-	-	-	-	-	-	-	-
		Ach	1,500,000	7	27	17	48	-	-	-	-	-	-	-	-	-	-
Gombe	2019	Tar	323,083	8	66	66	528	-	-	-	-	12	24	-	1:800	-	-
		Ach	323,083	5	-	17	64	-	-	-	-	0	0	-	1:4,089	-	-
	2020	Tar	370,171	8	66	121	404	-	-	-	-	12	24	-	1:800	-	-
		Ach	370,171	5	-	28	75	-	-	-	-	0	0	-	1:3594	-	-
Yobe	2019	Tar	593,228	13	35	35	222	50	-	50	12	12	12	-	1:1000	-	-
		Ach	400,00	13	10	15	50	30	-	30	2	6	2	-	1:2000	-	-
	2019	Tar	593,228	13	35	35	222	50	-	30	12	12	12	-	1:1000	-	-
		Ach	300,000	13	12	20	45	30	-	30	5	-	5	-	1:1000	-	-
Taraba	2018	Tar	288,000	-	30	30	288	-	-	-	40	12	12	-	1:1,000	-	-
		Ach	288,000	-	7	4	53	-	-	-	12	-	2	-	1:5433	-	-
	2019	Tar	288,000	-	30	30	288	-	-	-	40	12	16	-	1:1,000	-	27
		Ach	228,000	-	7	4	50	-	-	-	20	0	16	-	1:5,760	-	80

Ach = Achieved; Tar = Targeted

Table 15.3: Extension Activities/Workers in the North West Zone

State	Years	Target/Achievement	No of Farm Families	SMSs	BES	BEA's/WIA	VEAs	VEAs' Visits	OFARs	SPATs	MTPs	MTRMs / QTRMs	FNTs/MTs	No of Groups /Coops	EA/Farmer Ratio	No of farmers Trained	No of farmers field schools
Jigawa	2019	Tar	620,000	5	-	-	-	-	-	-	-	4	-	-	1:1000	-	-
		Ach	620,000	5	-	-	-	-	-	-	-	4	-	-	1:1800	-	-
	2020	Tar	620,010	5	-	-	-	-	-	-	-	-	-	-	-	-	-
		Ach	620,010	5	-	-	-	-	-	-	-	-	-	-	-	-	-
Kaduna	2019	Tar	1,322,226	28	25	56	131	192	-	-	8000	12/16	24	500	1:1000	200	-
		Ach	-	28	25	56	131	192	-	-	8000	-	12	356	1:6500	380	-
	2020	Tar	2016	28	25	56	131	192	-	-	8000	12/16	24	500	1:1000	200	-
		Ach	-	28	25	56	131	192	-	-	8000	-	12	75	1;6500	380	-
Kano	2019	Tar	-	6	176	176	2025	1.475260	-	-	-	-	-	-	1:800	11600	-
		Ach	1620000	6	122	122	1118	885450	-	-	-	-	-	-	!:926	3456	-
	2020	Tar	-	6	170	170	2025	1717248	-	-	-	-	-	-	1:800	11600	-
		Ach	1620000	6	170	170	1,105	1207073	-	-	-	-	-	-	1:900	7200	-
Katsina	2019	Tar	965,436	32	34	500	1500	-	-	-	-	-	-	-	1:1000	-	-
		Ach	965,436	12	34	87	120	-	-	-	-	-	-	-	1:4500	-	-
	2020	Tar	1,000,000	32	34	500	1500	-	-	-	-	-	-	-	1:1000	-	-
		Ach	850,000	8	34	52	84	-	-	-	-	-	-	-	1:10,000	-	-
Kebbi	2019	Tar	525,000	8	20	340	500	20	8	-	-	-	-	-	1:1000	1500	30
		Ach	525,000	8	30	200	160	15	8	-	-	-	-	-	1:3365	1500	30
	2020	Tar	525,000	8	30	340	500	20	12	-	-	-	-	-	1:1000	2500	30
		Ach	525.000	8	30	170	156	15	12	-	-	-	-	-	1:3365	2500	30
Sokoto	2019	Tar	-	5	10	480	30	-	-	-	-	-	-	-	-	60	-
		Ach	-	4	7	200	10	-	-	-	-	-	-	-	-	60	-
	2020	Tar	-	5	10	480	30	-	-	-	-	-	-	-	-	-	-
		Ach	-	4	7	200	10	-	-	-	-	-	-	-	-	-	-
Zamfara	2019	Tar	688,207	15	40	40	320	73,212	NA	12	-	4	12	-	1:1000	NA	40
		Ach	207,000	8	30	10	129	28,600	NA	-	-	-	11	-	1:4500	NA	-
	2020	Tar	688207	15	40	40	320	NIL	NA	-	-	4	12	596	1:1000	NA	40
		Ach	207000	8	30	10	139	NIL	NA	-	-	-	11	-	1:4500	NA	-

Table 15. 4: Extension Activities /Workers in the North Central 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
Benue	2019	Tar	-	15	46	46	368	192	-	-	-	4	24	-	1:1200	-	-
		Ach	-	11	12	0	3	160	-	-	-	4	24	-	1:2000	-	-
	2020	Tar	-	15	46	46	368	196	-	-	-	4	24	-	-	-	-
		Ach	-	11	11	0	43	165	-	-	-	2	6	-	-	-	-
FCT	2019	Tar	170,000	24	26	26	131	6288	-	-	262	12		-	1;800/1000	-	-
		Ach	168,000	12	26	9	70	3144	-	-	-	-		-	1:3000/1000	-	-
	20120	Tar	168,000	24	26	26	131	6288	-	-	262	12		-	1;800/1000	-	-
		Ach	160,000	12	26	11	70	3144	-	-	-	-		-	1:3000/1000	-	-
Kogi	2019	Tar	-	6	24	24	192	11,904	-	-	4	12	24	-	1.4000	--	-
		Ach	-	6	24	4	92	1,300	-	-	3	4	24	-	1:6000	-	-
	2020	Tar	-	6	18	24	192	11,904	-	-	4	12	24	-	1:4000	-	-
		Ach	464,000	6	24	4	92	1,400	-	-	3	4	24	-	1:6000	1000	-
Kwara	2019	Tar	400,000	20	6418	64	400	-	-	20	-	12	23	15	1:1000	-	-
		Ach	400,000	16	12	12	120	-	-	-	-	-	14	2	1:3000	-	-
	2020	Tar	400,000	20	64	64	400	-	2	20	-	12	-	16	1:1000	-	-
		Ach	400,000	16	12	12	120	-	2	-	-	-	-	3	1:3000	-	-
Nasarawa	2019	Tar	368,301	18	26	26	153	21816	-	-	50	-	-	-	1;1000	300	-
		Ach	368,301	15	25	18	65	7280	-	-	50	-	-	-	1;3886	300	-
	2020	Tar	377,500	18	26	26	153	21816	-	-	50	-	-	-	1;1000	350	-
		Ach	377,500	16	24	24	65	-	-	-	50	-	-	-	1;3886	950	-
Niger	2018	Tar	-	15	46	46	1000	60,000	-	-	-	12	24	150	1:800	18	-
		Ach	838,463	15	46	30	221	12,830	-	-	-	0	0	103	1:3200	7	-
	2019	Tar	-	15	46	46	1000	60,000	-	-	-	12	24	108	1:800	18	-
		Ach	838,463	15	46	30	221	12,830	-	-	-	0	0	103	1:3200	7	-
Plateau	2019	Tar	368,301	-	-	-	-	-	-	50	-	-	-	-	-	300	-
		Ach	368,301	-	-	-	-	-	-	50	-	-	-	-	-	300	-
	2020	Tar	377,500	-	-	-	-	-	-	50	-	-	-	-	-	350	-
		Ach	377,500	-	-	-	-	-	-	150	-	-	-	-	-	950	-

Ach = Achieved; Tar = Targeted

Table 15.5: Extension Activities/Workers in the South West Zone

State	Years	Target/Achievement	№ of Farm Families	SMSs	BES	BEA's/WIA	VEAs	VEA Visits	OFARs	SPATs	MTPs	MTRMs / QTRMs	FNTs/MTs	№ of Groups /Coops	EA/Farmer Ratio	№ of farmers Trained	№ of farmers field schools
Ekiti	2019	**Tar**	200,000	14	16	**16**	**128**	**-**	**-**	**9**	**450**	12	**54**	200	1:1000	**120,000**	**40**
		Ach	200,000	8	16	7	28	-	-	-	-	4	25	36	1:5500	52,000	27
	2020	Tar	200,000	14	16	16	128	8,400	-	16	16	12	12	96	1:1000	900	90
		Ach	200,000	8	16	7	31	3,654	-	-	-	-	3	38	1:5000	24	24
Lagos	2019	Tar	-	36	16	16	128	12,672	12	15	15	12	26	500	1:1000	250	81
		Ach	558,420	30	16	9	90	10,114	6	11	13	2	24	500	1:6420	150	81
	2020	Tar	-	36	16	16	128	12,672	12	15	15	12	26	500	1:1000	250	81
		Ach	558,420	36	16	9	90	6,312	0	0	0	4	18	515	1:6420	15	81
Ogun	2019	Tar	360,000	15	20	20	126	241,920	-	-	69	12	12	-	1:800	6,900	456
		Ach	-	12	12	10	65	72,189	-	-	52	2	12	-	1:4044	5,800	400
	2020	Tar	360,000	20	20	20	126	72,189	-	-	106	12	12	-	1:800	10,500	456
		Ach	-	17	20	20	120	67,680	-	-	25	-	4	-	1:2857	3,500	150
Ondo	2019	Tar	501,000	16	36	36	256	-	-	1000	18	12	24	248	1:1000	-	-
		Ach	450,000	12	36	14	94	-	-	180	0	-	16	72	1:2047	-	-
	2020	Tar	180,000	16	36	36	256	-	-	1000	-	12	24	248	1:1000	-	-
		Ach	100,000	8	36	14	80	-	-	100	-	-	-	55	1:3277	-	-
Osun	2019	Tar	256,000	9	31	-	248	192	-	-	-	12	26	-	1:1200	-	-
		Ach	256,000	6	22	-	22	192	-	-	-	-	24	-	1:10000	-	-
	20209	Tar	256,000	9	31	-	248	192	-	-	-	12	26	-	1:2000	-	-
		Ach	256,000	6	20	-	20	192	-	-	-	-	6	-	1:10000	-	-
Oyo	2019	Tar	415,030	-	33	33	264	-	6	-	-	12	26		1:800	-	27
		Ach	415,030	-	28	17	50	-	-	-	-	-	17		1:5929	-	54
	2020	Tar	415,030	-	33	33	264	-	6	-	-	12	26		1:800	-	27
		Ach	415,030	-	28	16	44	-	-	-	-	-	-		1:5929	-	54

Ach = Achieved; Tar = Targeted

Table 15.6: Extension Activities/Workers in the South East Zone

State	Years	Target/Achievement	No of Farm Families	SMSs	BES	BEA's/WIA	VEAs	VEA Visits	OFARs	SPATs	MTPs	MTRM / QTRMs	FNTs/MTs	No of Groups /Coops	EA/Farmer Ratio	No of farmers Trained	No of farmers field schools
Abia	2019	Tar	1000,000	18	38	-	304	22,256	5	5000	515	12	26	25,000	1:1000	0	0
		Ach	820, 000	17	37	-	86	11,128	-	1545	206	1	26	7000	1:643	0	0
	2020	Tar	1000,000	18	38	-	424	22,256	5	5000	515	12	26	25,000	1:1000	-	0
		Ach	650,240	17	37	-	81	11,128	-	1350	184	2	16	8,000	1:800	-	0
Anambra	2019	Tar	500,000	21	25	21	179	-	-	-	-	12	-	-	1:1000	-	46
		Ach	160,000	20	20	14	42	-	-	-	-	1	-	-	1:6000	-	20
	2020	Tar	-	-	-	-	-	-	-	-	-		-	-	-	-	-
		Ach	-	-	-	-	-	-	-	-	-		-	-	-		-
Ebonyi	2019	Tar	1,000,000	15	24	26	500	22, 133	-	5,130	515	12	26	25000	1:1000	-	-
		Ach	820,000	15	24	26	103	16, 000	-	1, 545	206	-	17	5000	1:6043	-	-
	2020	Tar	1,000,000	15	24	26	300	20,000	-	5,139	515	12	26	25,000	1:1000	-	-
		Ach	650,240	15	24	26	94	14,120	-	1,350	184	-	17	7,000	1:8,723	-	-
Enugu	2019	Tar	600,000	30	17	17	342	-	-	754	66	12	72	-	1:800	5000	-
		Ach	242,542	15	10	6	36	-	-	176	10	0	72	-	1:6479	312	-
	2020	Tar	800,000	30	17	17	342	-	-	754	40	12	72	-	1:800	3,500	-
		Ach	242,542	11	6	6	33	-	-	129	6	0	48	-	1:7220	270	-
Imo	2019	Tar	303,333	15	30	36	326	-	-	-	-	12	24	900	1:1000	-	-
		Ach	303,333	10	27	20	73	-	-	-	-	3	22	900	1:4530	-	-
	2020	Tar	303,333	15	30	36	326	-	-	-	-	-	24	900	1:1000	-	-
		Ach	303,333	10	27	20	73	-	-	-	-	-	10	900	1:4530	-	-

Ach = Achieved; Tar = Targeted

Table 15.7: Extension Activities/Workers in the South South Zone

State	Years	Target/Achievement	№ of Farm Families	SMSs	BES	BEA's/WIA	VEAs	VEA Visits	OFARs	SPATs	MTPs	MTRMs / QTRMs	FNTs/MTs	№ of Groups /Coops	EA/Farmer Ratio	№ of farmers Trained	№ of farmers field schools
Ak/Ibom	2019	Tar	-	30	40	40	274	33,600	-	3,129	322	12	26	1,360	1:2500	500	-
		Ach	685,095	30	40	30	115	13,783	-	1,218	13	1	26	286	1:5,075	300	-
	2020	Tar	-	30	40	40	274	25,376	-	5,490	244	12	26	1,360	1:2500	1000	-
		Ach	685095	28	40	26	107	2,785	-	2,497	55	-	6	286	1:6,403	200	-
Bayelsa	2019	Tar	10,000	5	32	-	174	2,464	7	296	3	12	24	1000	-	1000	28
		Ach	95,474	5	-	-	14	705	-	48	0	-	3	1260	-	-	-
	2020	Tar	10,000	5	32	-	174	2,608	3	296	3	-	24	100	-	1000	28
		Ach	91,840	3	-	-	23	308	1	60	3	-	4	115	-	-	28
C/River	2019	Tar	-	15	18	18	144	15552	1	360	148	12	24	405	1:3342	705	41
		Ach	481506	15	18	18	109	9824	1	340	230	0	12	405	1:5945	520	41
	2020	Tar	-	15	18	18	144	27648	1	405	148	12	24	405	1:3342	1260	41
		Ach	481506	15	18	18	81	8072	1	481	250	0	8	455	1:5945	1563	69
Delta	2019	Tar	179,256	**12**	25	25	200	19,588	6	-	125	12	24	2380	1:1000	-	-
		Ach	179,256	**12**	25	13	53	11,911	0	-	3	8	20	591	1:3382	-	-
	2020	Tar	179,256	**12**	25	25	200	34,417	8	-	125	12	24	1400	1:1000	-	-
		Ach	179,256	**12**	25	16	135	825	2	-	-	-	4	-	1:1327	-	-
Edo	2019	Tar	300,000	15	36	36	288	192	-	1600	20	12	26	2,304	1:200	-	-
		Ach	300,000	8	28	3	29	192	-	1120	8	1	26	1,024	1:9375	-	-
	2020	Tar	300,000	15	36	36	288	208/EA	-	1600	20	12	26	7,140	1:800	-	-
		Ach	300,000	8	28	3		144/EA	-	567	2	-	10	1,365	1:82	-	-
Rivers	2019	Tar	479,170	-	48	48	55	4,000		600	200	12	24	100	1:1000	1,500	81
		Ach	320,000	-	13	5	9	1106		612	-	-	16	98	1:8435	600	-
	2020	Ta	479,170	-	48	48	55	4,000		606	200	12	24	100	1:1000	1,500	81
		Ach	-	-	-	-	-	-		-	-	-		-	1:8435	160	-

Ach = Achieved; Tar = Targeted

15.3: List of Technologies under OFAR, MTP, SPAT

The list of technologies tried under OFAR, MTP and SPAT was presented on Table 15.8. the. As against 2019 record, 15 States did not present record on any of the three strategies in 2020. This indicates a decline in the number of such trials. In fact, for some States that presented report, there was no record of number of replicates of the technologies in the States.

Table 15.8: List of technologies tried under OFAR, MTP and SPAT

Agro-ecological zone/State	OFAR	MTP	SPAT
North East			
Bauchi (MTP)		Varietal Promotion -Sampea 14 -Tax 1448-2-1 -Ex-Sudan -Supa sosat ACR97(maize) -ICSV -Faro 49	
North West			
Kano (SPAT)		-	Control of Aflatoxin -Groundnut Urea usage -Rice advice -Non chemical cowpea storage -Safe use of Agrochemicals -Introduction of SAMNUT varieties
Kebbi (OFAR)	-Demonstration of SAMAS 40 -Demonstration of SAMPEA 14 &16 -Demonstration of upland Rice.		
Zamfara (MTP)	-Promotion Vit A maize. -Promotion of rice trials/planting technology.		

Table 15.8 (contd): List of technologies tried under OFAR, MTP and SPAT

Agro-ecological zone/State	OFAR	MTP	SPAT
North Central			
Kogi	-Comparative Evaluation of cassava varieties; -Comparism of Rice Varieties; -Popularization of soyabean varieties; - Yam varietal evaluation through minisett technique	-Cassava/ Maize mix -Low land Rice	
Kwara	Small ruminant animals for women	-Rice spacing -Transplanting - Planting on the flat land	
Plateau		Maize MTP	
South East			
Abia	Nil	-C/M/E -C/M/T	-C/M/E -C/M/T -C/M/Sweet Potato -C/M/Cocoyam -Yam minisett/Maize crop -Poultry -Piggery -Snail - Fishery
Enugu	-	-Line spacing -Planting distancing -Plant distance/fertilizer app -Production Techniques -Plant distance	-Yam Minisett/Maize -Swamp Rice -Cassava/Maize -Yam/Maize
Imo	-On-farm evaluation of the performance of three cucumber varieties (-) -On-farm evaluation of the performance of two varieties of new improved cowpea varieties (-)	-Agroforestry (1200) -Homestead fisheries (1500) -Snail rearing (-) -Sheep and Goat (1,300) -Poultry rearing (>2000) WIA packages (55-80) -Bee keeping (150) -HIV/AID advocacy	-Agroforestry (1200) -Homestead fisheries (1500) -Snail rearing (-) -Sheep and Goat (1,300) -Poultry rearing (>2000) WIA packages (55-80) -Bee keeping (150) -HIV/AID advocacy
Ebonyi	-	-Rice line planting -Cassava - System of Rice Intensification	-Rice row planting -Bee Keeping -Dry season vegetable -Yam minisett -C/m/sp -Processing/Utilization -Nursery Line planting -Sheep/goat -Livestock housing -System of rice intensification

Table 15.8 (contd): List of technologies tried under OFAR, MTP and SPAT

Agro-ecological zone/State	OFAR	MTP	SPAT
South West			
Ogun	-	-Optimum plant population (24) -Weed management (24) -Intercropping (40) -Rice transplanting (10)	-
Ondo	-	-	-Cassava/plantain intercrop (30) -Yam/cowpea intercrop (30) -Maize (OPP) (40) -Cassava (sole) (30)
Lagos	-Introduction of WESAFU ecotype cichlid into the pond culture of Lagos State	-Monosex culture of Tilapia in concrete pond system -Use of cassava peels leaf meal pelleted feed for the growth performance in the diet of goats -Popularization of new cassava varieties (TMS 98/0518 and TMS 98/0510)	-Use of rice husk as heat source on the quality of smoked catfish -Use of improved drip irrigation system in vegetable production -Planting of improved Vitamin A cassava
Ekiti	-On farm evaluation of compost to control cocoyam -Roots rot disease -Performance of West African Dwarf goats -Concentrate diet with 30% corn cob -Inclusion level -Demonstration on the performance of *Clarias gariepinus* stocked with Oreocromis milotieus in concrete tanks in Ekiti State -Demonstration on the impact of sexing on the growth and survival of Oreoehromis niloticus in concrete tanks in Ekiti		

Table 15.8 (contd): List of technologies tried under OFAR, MTP and SPAT

Agro-ecological zone/State	OFAR	MTP	SPAT
South South			
Akwa-Ibom	-On-farm evaluation of pro-vitamin A cassava (Nil) -On-farm evaluation of the productivity and acceptability of broiler chicken raised on sand litter (Nil) -On-farm evaluation of the productivity and acceptability of culturing catfish using maggot meal as protein source (Nil) -On-farm evaluation of soil amendment and fungicide application for the control of Taro leaf blight (Nil)	-Cassava/maize/egisi (12) -Yam/Maize/Telfaria (15) -Concrete/earthen pond (6) -Poultry production (22)	-Yam/Maize/melon (399) -Yam/maize/telfaria (94) Yam minisett production (22) -Dry season vegetable (439) -Artificial brooding of local chicks (263) -Pig production (78) -Poultry production (434) -Concrete/earthen fish pond (35, 5) -Forest vegetable production (35) -Processing/utilization of cocoyam, soybeans, plantain etc into confectionaries (297).
Cross Rivers	-Cassava/maize intercrop -On farm evaluation of soil amendment and fungicide. -Application for control of Cocoyam roots and leafbligth -On farm evaluation of new cassava varieties. -For Adaptability by famous in South South Agro-Zone.	-Cassava/Maize i/c -Row plants Rice -Concrete fish pond -Oil palm nursery -Fish fibre glass	-Cassava i/c -Row planting Rice -Sheep &Goat upgrading -C.M.E.T(i/c) -Poultry production -Home stead fish pond
Delta	- Evaluation of chlorpiriphos and Endosulfan in yam bettle control (0). -Evaluation of Pro-Vitamin A Cassava varieties (0) -Evaluation of the Economics of monosex culture of Oreochnomis niloticus (0) -Effect of feeding artificial diet growth of Oreochromis niloticus (0) -Demonstration of protein-enriched flour (0) -Comparism of Sokoto rock phosphate and NPK 12:12:17:2 in Oil palm cultivation (0)	-Hybrid maize (2) -Yam beetle control (1) -Improved cassava variety (0) -Improved plantain and banana plantlets (0) -Improved varieties of vegetables (0) -Homestead fisheries production (0) -BMP for poultry (0) -BMP for pigs (0) -PBRC (SAMPEA 201) (0)	-

Table 15.8 (contd): List of technologies tried under OFAR, MTP and SPAT

Agro-ecological zone/State	OFAR	MTP	SPAT
South South			
Edo	-Evaluation of yield and acceptability of sweet potato varieties grown under three ecological zones -Demonstration of confectionaries (chin-chin and dough-nut) form white and yellow cassava -Evaluation of the growth, the yield and resistance of wilt of some tomato varieties grown under three different ecological zones in Edo State	-Yam based crop mixture -Cassava based crop mixture -Yam minisett Technology -Cassava sole -Soyabean -Cowpea -Sweet potato -Rice -Pineapple	-Yam based crop mixture- -Cassava based crop mixture -Yam minisett Technology -Cassava sole -Cocoyam -Soyabean -Cowpea -Sweet potato -Rice -Pineapple
Rivers	-	-	-Yam minisetts /Maize -Yam/Egusi or Teir -Cassava/Maize/Egusi -Cass/Maize/Intercrop -Plantain/Cocoyam -Improved Cassava variety -Cassava/Maize/Cowpea -Sheep/Goat/Confinement -Rabbit Rearing -Home stead/Fish pond
Bayelsa	-Storage of Cassava stem during flood. -On farm evaluation of produce utility and profitability of -Cassava meal in layer ration. -On farm evaluation of floating feeds. -Formulation in Heterobrancus SPD. -Farm evaluation of early/sweet potato. -Demonstration of confectionaries Soya. -Milk, cakes, chin-chin from white/yellow cassava	-Plantain multiplication -Cassava multiplication -Swamp Rice farmers -Snail farming -Bee farming.	-Introduction of swamp Rice. -Cassava/Cocoyam -Poultry rearing. -Pig rearing. -Bee farming. -Snail farming -Plantain/Cocoyam -Vegetable farming -Homestead/Pond construction -Fish processing

15.3.1 Radio Programmes

Agricultural programmes aired on the radio in different States in 2020 are shown in Table 15.9.

Table 15.9: Radio Programmes aired in 2020

Agro-ecological zone/State	Programmes title	Number proposed		Number achieved		Time aired	Station aired	Programme duration	Language	Cost of airing per annuum	Sponsor
		2019	2020	2019	2020						
North West											
Kebbi	Sallama Manoma	55	60	50	45	9:30pm	KB Radio	30mins	Hausa	-	KARDA
	IFAD take kira.	55	60	50	45	9:30pm	KB Radio	30mins	Hausa	-	KARDA
	NADUKE	55	60	45	50	9:30pm	KB Radio	30mins	Hausa	-	KARDA
	Dan Manoma	60	60	40	50	9:30pm	KB Radio	30mins	Hausa	-	KARDA
Kaduna	Noma Babba	104	-	-	-	10:30-10:45	NAGARTA	15mins	Hausa	-	KADA
	Kasaurara Manoma	104	-	40	-	10:30-10:45	FRCN	15mins	Hausa	-	KADA/CNFA
	Harama Manoma	48	-	-	-	11:30am	Radio Kano	15mins	Hausa	-	KNSG.
	Ina Manoma	48	-	-	-	12:15pm	FRCN	30mins	Hausa		Kano State Govt.
Sokoto	Mukoma Noma	-	-	-	-	-	-	-	-	-	-
	Noma Na Duke	-	-	-	-	-	-	-	-	-	-
	Dandalin Manoma	-	-	-	-		-	-	-	-	SADP
Zamfara	Fillin Zanfara Project	24	24	22	22	Tue-11:30am Sun- 3:30pm	Zamfara Radio	30mins	Hausa	-	ZADP
Jigawa	Jarda Jaeoran Manoma	104	104	-	-	5pm	Radio Jigawa	30mins	Hausa	720,000	JARDA

North East											
Bauchi	Akoma Gona	52	52	53	53		FM	30mins	Hausa	600,000	BSG
	Noma da Raya Karkara	52	52	53	32	8:00pm-9pm	Albarka FM	30mins 30mins	Hausa Hausa	1,404,000 1,404,000	BSG BSG
Gombe	Noma Tushen Arziki	52	52	52	32	8:00am	GMC Gombe	30mins	Hausa	130,000	UNDP & GMC
Yobe	Zauren Manoma	30	30	51	38	11:30am	YBC	30mins	Hausa & Kanuri	100,000	YADP
Taraba	Take Kira	NA	NA	NA	4	11:am	TSBS	60minuts	Hausa		Oxfom

Agro-ecological zone/State	**Programmes title**	**Number proposed**		**Number achieved**		**Time aired**	**Station aired**	**Programme duration**	**Language**	**Cost of airing per annuum**	**Sponsor**
		2019	**2020**	**2019**	**2020**						
North Central											
Kogi	Farmers forum	52	52	NA	NA	6:30pm	Radio Kogi	30 mins	English	16,900	ADP
FCT	Agric School Green Land	24	24	12	6	Sat 7pm	K.pital F.M	25mins	English	Collaboration With Kpital/FM	ADP
Kwara	Maize Prog.	-	1	-	1	2-3pm	89.15	45mins	English/ Yoruba	45,000	KWSG
	Rice Prog.	-	1	-	1	2-3pm	89.15	45mins	English/ Yoruba	45,000	KWSG
	Cowpea Prog.	-	1	-	1	2-3pm	89.15	45mins	English/Yoruba	45,000	KWSG
Niger		52	-	34	-	8:30pm	Crystal radio9&1.3FM Minna	30mins	English/Hausa	600,000	NAMDA

South West											
Lagos	-	52	52	27	27	6:25pm	Radio Lagos	30mins	Yoruba	1,444,000	LSADA/APEALS
	-	10	10	10	10	6:25pm	Radio Lagos	30mins	Yoruba	240,000	APPEALS
Ekiti	Agbeloba	304	320	192	196	5:45am	BSES	10mins	Yoruba	1 million	State Government
Osun	Aye Agba	52	52	NA	NA		OSRC	15mins	Yoruba	10,022	ADP
Ondo	Kaje-Kayo	13	-	13	-	6-6:30PM	Positive FM	30mins	Yoruba	500,000	ODSG
Ogun	Jingle son agric tech	39	39	40	-	7.30pm	96.5FM	1 minutes	English/Yoruba	1million	ODSG
Oyo	Agbe afokosoro	52	52	49	33	8:30-8:45	OGBC FM	15mins	Yoruba	546,000	State Govt
	K'ebi ma pa'lu	-	13	-	10	4-5pm	Root FM	1hr	Yoruba	-	State Govt
	Ise Agbe	52	52	NA	NA	4.45pm	Amulu Dun	15mins	Yoruba	NA	OYOSG OYSADEP

Agro-ecological zone/State	**Programmes title**	**Number proposed**		**Number achieved**		**Time aired**	**Station aired**	**Programme duration**	**Language**	**Cost of airing per annuum**	**Sponsor**
		2019	**2020**	**2019**	**2020**						
South East											
ABIA	Amnesty programme Fall armyworm JICA Japan	NA NA NA	1 2 4	NA NA NA	NA NA 2	- - 6pm	- - BCA 8811		- English	-	ADP ADP
ANAMBRA	1.Training and sensitization programme against indiscriminate use of Agro chemicals in production. Postharvest handling and storage of Agricultural commodities for farmers and Traders.	3	01	-	24	9:30-10am	ABS	1hr	English/Igbo	-	ADP.

	2.Sensitization on effective use of the one stop Agric center. 3.Training on correct planting of Cassava value chain.		4 24		4 24	9:30-10am 9:30-10am	ABS ABS	1hr 1hr	English/Igbo English/ Igbo	- -	ADP ADP
	4.Empowerment of women and youths through distribution of poultry pens, feeders & drinkers, Docs and feeds		24		24	9:30-10am	ABS	1hr	English/ Igbo	-	ADP

Agro-ecological zone/State	Programmes title	Number proposed		Number achieved		Time aired	Station aired	Programme duration	Language	Cost of airing per annuum	Sponsor
		2019	2020	2019	2020						
South South											
CROSS RIVER	New farming season. Fish pond construction. (Talk show)	52	52	-	52	7pm	CRBC	15min	English	1,300,000	CRSG
AKWA IBOM	Radio farmer	48	-	-	-	6:30pm	AKBC	15mins	Eng. & Efik	2.04million	AKSG
BAYELSA	-Agric hour on importance of diversification/farmers to remain focus.	4 4	4 4	2 2	2 2	11am 1:30pm	97.1FM 166.5FM	1hr 1hr	English English	- -	- -
EDO	Farming Hints	52	NA	35	NA		EBS	25 minutes		N600,000	Edo ADP

TV Programmes

Table 15.10: Television programmes aired in different States in 2020

NORTHWEST											
State	**Programmes Title**	**No. Proposed**		**No. achieved**		**Time of Aired**	**Station Aired**	**Programme Duration**	**Language**	**Cost of Airing per annum**	**Sponsor**
		2019	**2020**	**2019**	**2020**						
Katsina	KARTAU SARKIN NOMA	52	52	52	29	10:00PM	State radio	30mins	HAUSA	210,000	KTARDA
Zamfara	Noma Tushen Arziki	12	12	8	12	Sun 11pm Mon 10:30pm	NTA Gusau	30mins	Hausa	Free	NTA

NORTHEAST											
State	**Programmes**	**No. Proposed**		**No. achieved**			**Station Aired**	**Programme duration**		**Cost of Airing per annum**	**Sponsor**
		2019	**2020**	**2019**	**2020**						
Bauchi	Akoma Gona	52	52	52	32	7:30pm	NTA	30mins	Hausa	800,000	BSG
	Noma Tushen Arziki	52	52	52	32	7:00pm	BTV	30mins	Hausa	686,400	BSG
Yobe	Mukoma Gona	6	6	3	3	8:00-8:30pm	YP & NTA	30mins	Hausa& Kanuri	150,000	YADP

NORTH CENTERAL											
State	**Programmes**	**No. Proposed**		**No. achieved**		**Time of Airing**	**Station Aired**	**Programme duration**	**Language**	**Cost of Airing per annum**	**Sponsor**
		2019	**2020**	**2019**	**2020**						
KOGI	Farmers forum Back to land	52 13	52 13	NA NA	NA NA	6:30pm 6:30PM	Radio Kogi NTA	30mins 30mins	English English	16,900 3,640,000	ADP ADP
FCT	Farmers programme	12	12	0	0	No fixed time	NTA	15mins	English	-	ADP
KWARA	Maize Prog.	3	2	-	16	3-4pm	NTA	45mins	English	45,000	KWSG
	Rice Prog.	3	1	-	16	3-4pm	NTA	45mins	English	45,000	KWSG
	Cowpea Prog.	3	1	-	16	3-4pm	NTA	45mins	English	45,000	KWSG

SOUTHWEST											
State	**Programmes**	**No. Proposed**		**No. achieved**		**Time of airing**	**Station Aired**	**Programme duration**	**Language**	**Cost of Airing per annum**	**Sponsor**
		2019	**2020**	**2019**	**2020**						
EKITI	Lahere	-	52	-	30	5-5.30pm	BSES	30mins	Yoruba	1.2million	State Govt
OSUN	Aye Agba	12	12	NA	NA	7:15PM	OSRC	15mins	YORUBA	10,022	ADP
ONDO	Obalagbe	20	10	10	-	WEEKLY	OSRC	30mins	YORUBA	1million	ODSGS
OGUN	Agbelere	52	52	-	33	5:00-5:30pm	OGTV	30mins	Yoruba	2,613,000	State Govt
OYO	Agbeloba	52	52	NA	NA	4.30pm	Amulu Dun	30mins	Yoruba	NA	OYOSG OYSADEP

SOUTHEAST											
State	**Programmes**	**No. Proposed**		**No. achieved**		**Time of airing**	**Station Aired**	**Programme duration**	**Language**	**Cost of Airing per annum**	**Sponsor**
		2019	**2020**	**2019**	**2020**						
ENUGU	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ABIA	Fall Army worm SASAKAWA Jica Japan	2 1 4	NA - -	NA NA NA 2	NA NA NA NA	- 6pm	- BCA 8811	- -	English English	- -	ADP ADP
ANAMBRA	1.Training and sensitization programme against indiscriminate use of Agro chemicals in production.	3	01	-	24	9:30-10am	ABS/AN	1hr	English/Igbo	-	ADP
	Postharvest handling and storage of Agricultural commodities for farmers and Traders.	-	4	-	4	9:30-10am	ABS	1hr	English/Igbo	-	ADP
	2.Sensitization	-	24	-	24	9:30-10am	ABS	1hr	English/Igbo	-	ADP

	on effective use of the one stop Agric center. 3.Training on correct planting of Cassava value chain. 4.Empowerment of women and youths through distribution of poultry pens, feeders & drinkers, Docs and feeds		24	-	24	9:30-10am	ABS	1hr	English/Igbo	-	ADP

SOUTH-SOUTH											
State	**Programmes**	**No. Proposed**		**No. achieved**		**Time of airing**	**Station Aired**	**Programme duration**	**Language**	**Cost of Airing per annum**	**Sponsor**
		2019	**2020**	**2019**	**2020**						
CROSS RIVER	Good morning Cross River	12	12	4	2	8am	CRBC	15	English	426,000	State Govt
BAYELSA	Agric Home discuss. Proper use of Agro Chemicals	2 2	2 2	1 1	1 1	8am 10:30am	Royal TV NDTV	1 hr 30mins	English English	N10,000 N50,000	Royal FM MANR
EDO	Farming Hints	52	52	52	33	6:30	EBS	30 minutes	Pigin English	NA	Edo ADP

15.3.2 Problems affecting the effective performance of ADPs in Nigeria

The problems affecting the effective performance of ADPs were similar across the States of Nigeria. This shows clearly that ADPs across the six agro-ecological zones are not adequately equipped to perform their fundamental role of advisory services due to the problems identified in Table 15.11 below. We may have to do a re-think and set our priorities right if we are to progress in the development of agricultural sector in the country.

Table 15.11: Problems affecting the performance of ADPs in Nigeria

Nature of problem	States Affected
Poor funding	All States
Inadequate staffing	All States
Inadequate transportation/utility vehicle	All States
Inadequate extension material (Input)	All States
Low EA: Farmers ratio	All States
Inadequate allowances	All States
Inadequate training	All States
Poor media services	All States
Redundancy	All States

Source: NAERLS, Agricultural Performance Survey, 2020

15.3.4 NGOs participation in Extension activities

The 2020 APS exercise as documented in (Table 15.12) indicates the NGOs participating in extension service delivery across the six geo-political zones of the country. All the State ADPs with exception of a few like Ondo (SW), Sokoto (NW), Katsina (NW), Akwa Ibom (SS) and Bayelsa (SS) provided information on the activities of NGOs in their respective States. The various NGOs collaborated with the State ADPs in the areas such as extension support, health and nutrition, livestock, crop production, livelihood projects, private extension delivery, value chain, empowerment and technical support. The major NGOs identified included; SG2000, USAID, LAPO, GIZ, UNDP, FAO, ICRISAT, IITA, UNICEF, ICRC, OXFAM, IFAD, Dangote Foundation, and Rockefeller foundation etc.

Table 15.12: Ngos Participating in Extension Service Delivery

North East Zone			
State	**NGO**	**Activities**	**Estimated farm families reached**
Bauchi	ICRISAT	Millet and Sorghum Promotion	-
	IITA	Maize and Cowpea Promotion	-
	UNICEF	Health and Nutrition	
	OPC AFRICA	Extension Services	-
Borno	ICRC	Crops and livestock promotion	-
	NCRC	Extension support	-
	DRC	Extension support	-
	AAH	Extension support	-
	GIZ	Extension support	-
Adamawa	FAO UNDP UNDP-GEF GIZ	Extension and trainings for farm families Training of farmers on crop production	12 LGAs 6 LGAs 2 LGAs 3 LGAs
Gombe	-SG2000	Extension services	65,300
	UNDP	Livelihood	2,000
Yobe	Save the children MERCY CORP Victim Support Fund	Livestock support and small ruminant upgrading	

North West Zone			
State	**NGO**	**Activities Performed**	**Estimated no of farm families reached**
Kebbi	OXFAM	Use of EAs in Agric activities	**5000**
Kaduna	AGRA	Collaboration	-
Kano	SG2000	Extension on modern Agriculture	-
Jigawa	IFAD Service	-Value chain -Procurement of energy saving store/727,000	
	FADAM III AF	Value chain	
Zamfara	AGRA, Rockfella foundation,SG2000	Training.	-

North-Central Zone			
State	**NGO**	**Activities Performed**	**Farm families reached**
Kogi	Action-aid	Extension advisory services**.**	300
	PIBCID	Extension services	300
	SAA/SG2000	Extension services	400
Benue	UNDP/GEF/IAPCFS	Extension (cassava seed)	-
Plateau	GIZ	Extension and trainings for farm families	-
Niger	SYNERGES	Extension and trainings	-
Kwara	CRUDAN	Agricultural extension services	25
	ASTC	Agric. Extension	25
	NVRI	Veterinary extension services	25
	GIZ	Trainings of farmers	25
	IITA/RMRD	Sugar beet production technology	25
Nasarawa	YMCA AGRA	Private extension Delivery	-
Taraba	OXFAM and Prosell	1.Livelihood project 2.Input supply	-
FCT	Muye Agro	Extension sale of input	-

South West Zone			
State	**NGO**	**Activities Performed**	**Farm families reached**
Ondo	ST. Peters Catholic Church, Akure	Training of Extension Agents and farmers	
Oyo	Harvest Plus	Multiplication and Cassava weed management project	
	Cassava weed management project	Weed control	
	GIZ Green Innovation	GAP & Farmer Business School promotion	
	DANGOTE Rice	Out-grower promotion	
	SAHEL	Dairy production	
Lagos	Dangote foundation BATN Foundation ALDA_AQUA	Product Development and Empowerment Product Development and Empowerment Fish Feed support	

Ogun	JDPM Sasakawa JDPC	-Macro-based extension -Crop production enhancement. - Crop and livestock enhancement	
Osun	Cato foods	Cassava processing,	100

South East Zone			
State	**NGO**	**Activities Performed**	**Farm families reached**
Anambra	Shoulder for Gender	Women mobilization	-
	Ecoset	Empowerment of farmers	
	APLS	Empowerment of farmers	
	NOAN	Empowerment of farmers and training of farmers	
Ebonyi	Participatory development	Technical support	
	PDA inPartnership with Action AID	Extension support	
Enugu	OIDJAP	Trainings and facilitating credits	
	ASRIDE	Extension services	

South-South Zone			
State	**NGO**	**Activities Performed**	**Farm families reached**
Rivers	-Agric Entrepreneur -Institute of Export operation and Management	-Agric support, Advisory/Consultation. Training in Export delivery services	2720 2608
Cross River	-SG2000 -ACA 1 -CUSO,CAL,CRS	Rice/Cassava I/C Cassava/Maize/I/C FFS Implementation	480 125 1089
Akwa-Ibom	-	-	-
Delta	Market 11	Training of farmers and empowerment of women group Training of youth on fish farming	
Edo	-USAID -LAPO -MADE -GIZ	-Training of Farmers -Credit and Extension Support to farmers -Sponsorship of processing equipment -Training farmers	

15.3.5 Trainings Needs

Table 15:13 shows the various training needs of the State ADPs across the six geographical zones of the Country. The major areas of interest included; Crop improvement, Fish production, Livestock production, Water management, Horticulture, Irrigation, use of ICT, Book keeping, pest and disease control, Data collection and analysis, Good agronomic practices , Pod borer resistance cowpea,, Monitoring and evaluation in agric. Business, Mainstreaming gender & the invulnerable groups into developmental programmes, Small ruminant production & management, Good nutrition for children , How to use PCS bags for storage, Post-harvest handing of crops and Monitoring and Evaluation. The category of personnel requiring these trainings included SMS, BEAs, EAs, Enumerators, M&Es, Directors, PMs, Planning officers, WIA/ vulnerable youths and farmer groups in order of their training subject matter. There were

Table 15.13. Training Needs of ADPs

STATE	SUBJECT MATTER	CATEGORY OF PERSONEL	2020
ZAMFARA	Preseason Training, monthly training	Extension agents	139
	Workshop	SMS & Extension agents	139
KATSINA	Fish	EAs	
	Crop	EAs	
	Livestock	EAs	
KEBBI	Pest and disease control	EAs	50
	Crop production	EAs	25
	Livestock production	EAs	65
	Fisheries	EAs	30
	Water management	EAs	40
	Computer	Enumerators	25
KADUNA	Crop	EAs/Farmers	
	Horticultural crops	EAs/Framers	
	Livestock	EAs/Farmers	
		EAs/Farmers	
	Fishery	EAs	
	Irrigation		
KANO	- Record Keeping	RD Staff	40
	-Use of farm yard Manure	Extension Staff	All
	-Data collection Analysis	M&E	All
SOKOTO	-	-	-

no data from Adamawa, Sokoto, Benue, Plateau, Nasarawa, Taraba and Ekiti States.

States	Training Subject Matter	Category of personnel in need of training	2020
	MTRM	Extension Staff	
	Refresher Courses	Extension Staff	1680
	Long term Courses	All Staff	540
	Workshop/Seminar	All Staff	55
	In-house training	All Staff	60
	In-house training	Farmers	240
Bauchi	IT-Students	Students	2400
BORNO	-	All extension agents	720
	-	All SMS	**50**
YOBE	Good agronomic practices	SMS/EAs/Farmers	
	Pod borer resistance cowpea	SMS/EAs/Farmers	2000
	Small ruminant production & management	SMS/EAs/Farmers	1000
	Fish production, disease & control	SMS/EAs/Farmers	3500
	Good nutrition for children	SMS/EAs/Farmers	1500
	How to use pcs bags for storage	SMS/EAs/Farmers	500
	Post-harvest handing of crops	SMS/EAs/Farmers	600
GOMBE	Information Technologies	Extension Agents	1800
	Configuration of ODK	Enumerators	30
	Monitoring and Evaluation	M and E	6
	Food and Nutrition	Block Ext.Agents	3
	Food Storage	Farmers& Ext. Agent	5
	Fishery	Fish Farmers	55

States	Training Subject Matter	Category of personnel in need of training	2020
KWARA	Crop Production	SMS Crop	4
	Crop Processing	SMS WTA	4
	Crop Entrepreneurship	SMS Crop WTA DD EXT	6
	Sweet Potato Grit Processing	Extension Agent	22
	Budding and Grafting	SMS Crop	8
KOGI	Good Agronomic Practices	SMS	300
	Agric business	Youths	-
	Rice-Production	SMS &Youths	-
	Fish Farming Practices Processing &Marketing	SMS &Youths	400
	Feed Mill Management skills	SMS &Youths	400
NIGER	(GAP) on selected crops	EAS,WIA,BES	320
	Technology of Sugar		
	Beef production	EAS,WIA,BES	15
FCT	-Pod borer- resistant - Variety-Capacity building	AES& 16 EA's	160

States	Training Subject Matter	Category of personnel in need of training	2020
	Good agricultural practices in crop production	Extension agents	80
	Modern comm. Skills in extension	Extension agents	80
	Training on management skills	Director/Directors	10
	Monitoring& evaluation training	M&E Staffs	15
	Training on agric business	Extension agents	80
Ondo	Training on ICT & reporting	Planning officers	5
Oyo	Training on Extension delivery	GL 08-16	3
	Basic Computer Training	GL 01-09	3
	Extension Communication	GL 08-14	3
	Agric. Project Planning	GL 14-16	3
	Training on Food Processing	GL 08-14	3
Lagos	Fortnightly training	Extension Officer	90
	Extension Communication	Extension Officer	16
	Advanced Management Courses	Head Extension, HFA, WIA	3
	E-Extension on Intuitive Voice System	Extension Personnel	90
Ogun	Fish handling, processing, preservation and packaging	SMSs	22
	Group Dynamics/Record Keeping	Extension Agents	141
	Procedure for Group formation	Extension Agents	100
	Training on organisation of group meeting	Extension Agents	100
	Extension communication strategies	Extension Agents	100
	Credit procurement and administration	Extension Agents	100
	Gender issues and development	Block Extension Agents	30
	issues relating to utilization of farm produce	Block Extension Agents	30
	Tot in Agric &Rural Development	Deputy Directors	15
	Training on management and Administration	Directors	7
	Weed Management	Extension Agents	141
	Control of Pest and Disease in crop	Extension Agents	141
	ICT	Extension Agents	141
	Extension Strategy	Extension Agents	141
	Climate change and mitigation	Extension Agents	141
	Training on data analysis	Extension Agents	141
	Training on the use of decision support tools on al agricultural enterprise	Extension Agents	141
Osun	FNT	Extension Agents	30

SOUTHEAST ZONE			
States	**Training Subject Matter**	**Category of personnel in need of training**	**2020**
Imo	Usage of the ICT	M&E staff	10
	Instruments for the data collection	Extension Agents	30
	Conducts of APS	Mgt. Staff	5
	Usage of soft wares	M&E Staff	3
	for analytical Development of Imo ADP/World Bank Project	and Mgt. Staff	2
Enugu	Extension Agents	EAS	36
	Trainings at FNTs, BM and MTRM	EAS	36
	Training of SMSs on various subject matters	SMSs	17
Abia	Training in Value Chain	All categories of extension staff	200
	Effective EXT. Delivery	All categories of extension staff	200
	Using ICT Plat forms	All categories of extension staff	200
	Post-Harvest Management	All categories of extension staff	200
	Management Information System	All categories of extension staff	200
Ebonyi	Effective livestock	ZED,SMS,BES	300
	Extension methods		200
	ICT application in human resources and Mgt		200

States	Training Subject Matter	Category of personnel in need of training	2020
Rivers	Extension and communication	Village ext. agents	9
	Data processing and analysis	Management level staff	40
	Leadership and group dynamics	Zonal managers	3
	Management training	Directors GL 16	11
Akwa-Ibom	Mushroom Production	EAs, BEAs, BESs, SMSs	
	Green House Vegetable Production	EAs, BEAs, BESs, SMSs	
	Artificial Insemination	EAs, BEAs, BESs, SMSs	
	Fish (Eggs) Hatching	EAs, BEAs, BESs, SMSs	
BAYELSA	NTRM	PM/Directors/SMS/AEOS	
	FNT	CAS/DEAS/ZMS/AEOS	38
	Pre-Season Training	EAS/BEAS	32
	Post/Pre-Season Training	-	
	Infrastructure credit institution	Staff and farmers	350
	The use of hydroponics in crop production	Staff and farmers	350
	ICT approaches for crop data collection	EAs and farmers	96
	General measures of disease prevention	EAs and farmers	30
	Prevention and control of fall Army worm in maize	-	

Edo	1	Lesson plan preparation	SMS	3
	2	Report writing	Component heads	20
	3	Training on memo writing	Sub-Programme heads	7
	4	Capacity building of agricultural extension managers and agricultural field officers on agri. value chain	Extension Officers	2
	5	TOT of good agronomy practices on cassava production	BES and EAs	10
	6	Step-down training on GAP on cassava production	N-Agro Extension workers	200
	7	Workshop on effective extension delivery services in Nigeria	Director of extension	1
	8	Cassava based workshop	Extension officer	1
	9	Seminar on bee keeping	Extension Officer	3
	10	Seminar on poultry production	Extension officer	1
	11	Fresher TOT for FBS trainers and supervisors	MIS officer	1
	12	Cat fish production	Farmers	47
	13	Industrial training on agric. Production	SMS	15
	14	Training of trainers on catfish production/processing	EAs, CPO and IT students	15
	15	Hatching of clarias fingerlings	Technical staff	46
	16	Fishery and Pig production	Technical staff	15
	17	Crop product and animal husbandry	Technical staff	20
	18	Snail production	Technical staff	36
	19	Cassava stem multiplication	Technical staff	20

	20	Weather report training	Enumerators	36
	21	Market survey training	Enumerators	36
	22	Audio-visual media production tech. for agric. and rural development	CCO/Cameraman	2
	23	Design and management of surface irrigation system	Director of Engineering services	1
	24	Effective management of micro-credit and finance scheme	DRID and credit marking officer	2
	23	Account control, Audit Risk & whistle blowing	Audit clerk	1
	24	Skill improvement course for internal auditors	Internal auditors	2
	25	General management course for executive	Programme Manager	1
	26	Participatory Mgt. of Agricultural and Rural Development Programme	Programme manager	1
	27	Leadership and management skills for project managers	Programme manager	1
	28	Emerging trends in secretarial duties and computing skills	Secretary / computer operators	9
	29	Record Management, document tracking, and mail handling	Registry staff (clerks)	4
	30	Value re-orientation, ethics and altitudinal change in the world place	Admin – officers	1
	31	Office equipment maintenance and management	Operators and technicians	2
	32	Managing and training function	Training executive coordinator	1
	33	Techniques for advance record keeping, registry mgt. and correspondence	Clerical staff (registry)	4
	34	Defensive driving, safe monitoring and communication skills for drivers	Drivers	6
	35	Understanding stores, inventory, E-procurement and logistics management	Store officer	1
	36	Security and safety skills for security personnel	Security guards	3
	37	Training needs analysis	Training officer	1
	38	Fundamental of office administration for effective leadership in the organization	Director of administration and training	1
	39	Understanding payroll, salaries, wages and pension administration and account	Account clerks	35
	40	Total cost management for heads of account	Accountant	2
	41	Financial management for heads of account	Director of finance and account	1
	42	E payment system challenges and implementation strategy	Cashier	1
	43	Computer network and internet connectivity	MIS	2
	44	Budget preparation skills	Director of planning monitoring & Eval/MIS	3
	45	Monitoring and evaluation in agric. business	Evaluation officers	2
	46	Mainstreaming gender & the invulnerable groups into developmental programmes	Head women in agriculture	

15.3.5 Problem Needing Research in the Nigerian Agricultural Sector

Table 15.14 depicts the problems requiring research in the development of the Agricultural sector across the six agro-ecological zones of the country. The priority areas indicated in table shows that for crop production across the six agro-ecological zones needs further research in high yielding varieties and drought resistance crops, improved agronomic practices, seed selection (adaptation to ecology) storage, processing, pest and diseases, research on cocoyam fungal attacks ,technologies to cut down cost of line planting of rice, Stem borer attack in rice, tomato wilt, control of armyworm in maize and use of organic bio-pesticides in pest and disease control . In the case of research needs in horticulture across the zones, the table shows the major areas included; Tomato fruit worms (*Tuta absoluta*), improved varieties of onion and okra, nursing of Fruits and Orchard for higher income generation and production of early maturing varieties of Banana. In the area of livestock production, findings from the survey indicates that research needs are required in improved breeds of poultry, adaptable pasture seeds, feeds formulation and livestock management ,using Leucenea as improved livestock feed for small ruminants ,breeding of turkey, coccidiosis in poultry and treatment of young puppies, prevention and control of African swine fever ,alternative cheap sources of energy and protein in feeds, technologies in ranching of mature cattle and improvement of local goat with exotic breed through cross breed. For fisheries, the areas in priority areas in need of research were formulation of fish feed, Fingerlings production and Effective poly-culture management.

More so, in the area of agro-forestry the research needs included agro-forestry model VIETIVA Grass nursery, allay cropping, trial and research on the following exotic plants; apples, olive, grape vines, blue berry, coconut, oil palm and date palm, high yielding varieties and control on termite attack and white flies infection on citrus, termite on coconut. As for agricultural mechanization, the survey reveals that research needs are required in fabrication of manual or animal drawn planters, soybeans threshers, mechanic for preserving vegetable and spices and mechanized palm oil production for small palm oil processor. On research needs for irrigation, findings revealed that the priority areas for research were; water management techniques, development of cost-effective irrigation system, GIS tools and remote sensing skills and effects of drip irrigation system on vegetable production. On WIA, the survey reveals that further research was needed in food, labour saving devises and agro-processing, fruits extraction and fruits juicing, processing and packaging machine to handle waste of our fruits and mushroom production of spores for edible mushroom. Lastly, on the research needs for extension services across the geographical zones of country, the survey indicates that; capacity building and provision of mobility, e-extension through the Farmers Help Line for effective and efficient extension services delivery, mainstreaming (CDD) Community Development Driven in Extension and effective use of Social Media Platforms in Extension Service Delivery.

Table 15.14: Problems requiring research in the development of the Agricultural sector

NORTHWEST ZONE		
States	**Problem**	**Areas needing research**
Zamfara	Crop	Management of Rice blast, pod borers in Cowpea
	Horticulture	Tomato fruit worms (Tata absoluta)
	Livestock	Research on common Livestock diseases
	Fisheries	Formulation of fish feed
	Agro-forestry	Fruit and flower abortion in mango and cashew
	Agricultural mechanization	Simple weeding and harvesting machines
	WIA	Small Ruminants for Women Empowerment. FG/MANR initiative for poverty alleviation located at Wanke village in Gusau LG
	Irrigation	Water management techniques
	Extension	Modern value addition on agricultural product
Katsina	Fish	Improved highly prolific fingerlings production Fish feeds formulation
	Crop	Lack of high-yielding varieties and Drought resistance varieties of crops
	Livestock	Lack of upgraded breeds
Kebbi	Crop	-Pre/Post harvest technology.
	Horticulture	New breeds of flowers and method of controlling their disease
	Livestock	Animal Disease
	Agricultural mechanization	The use of modern Agric machines, their handling and repairs.
	WIA	Capacity building of women Extension Agents and recruiting of more women farmers in the programme.
	Irrigation	Training on water mgt and control of canals in the irrigation schemes
	Extension	Capacity building and provision of mobility
Kaduna	Crop	Inoculant for pulse seeds Pest and disease and Improve seeds
	Horticultural crops	Research on pest and disease of mango, guava and citrus
	Livestock	Disease and pest control in ruminants and vaccines among noticeable diseases of ruminants
		Poultry feed formulation
	Fishery	Feeds formulation
	Irrigation	Research on dilapidated irrigation facilities across the State
Kano	i. Horticulture	Short duration for production.
	ii. Livestock	-To give birth to twin triplets -Production of more milk -Crop process in polythene bag
	iii. Fisheries	-Fish Farm maintenance. -Formulation of fish feed.
	iv. Agroforestry	-Danger of forestation
	v. Irrigation	-Good water management. -Settle water bill
	vi. Extension Services	-GAP
	vii. Women in Agriculture (WIA)	-To learn how to form group.

Jigawa	Crop Livestock	Improved agronomic practices Livestock development
Sokoto	Crop	Crop varietal trial, G/nut dry season trial and cowpea dry season trial
	Horticultural crops	Tomato heat tolerance varietal trial Aphid control in pepper
	Livestock	Introduction of Balami Ram programme Silage making in two Zonal offices
	Agro-forestry	Agro-forestry model VIETIVA Grass nursery Allay cropping

NORTHEAST ZONE		
States	**Problem**	**Areas needing research**
Adamawa	Crop	Research on Seseme, soybean and cowpea
	Poultry and livestock	Improved breeds of poultry Adaptable pasture seeds
	Horticulture	Improved varieties of onion and okra
	Fisheries	Improved fish production techniques, and fish feed formulation
	Irrigation	Irrigation scheduling
	Extension	Good agricultural practices
	Women in Agriculture	Food processing and preservation
Gombe	Crops	-Adoption of improved Cowpea (Pbrc) varieties in Gombe. -Control of diseases of sesame production.
	Horticultural Crops	-Post harvest operations in Tomatoes. -Drying of vegetables (Solar) for proper storage.
	Livestock	-Heat resistant vaccines -Endo and Ecto parasite control.
	Fisheries	-Market linkage (Strategies) for Fish-Farming
	Agro-Forestry	-Amenity Plantation -Shelter Belt -Alley Cropping
	Irrigation	-Salinity in Fadama Areas
	Agricultural Mechanization	-Fabrication of Majual or Animal Drawn Planters -Fabrication of Soybeans Threshers
	Extension Services	-Effective Communication Gadget -Training Manual
	Women in Agriculture (WIA)	Processing of Tiger nut into powdery form to be used over a long period.

Bauchi	-Crops	High yield varieties
		Drought tolerant varieties
		Early maturing varieties
	-Horticulture	High yield/early maturing varieties.
		Pest and disease tolerant varieties
	-Livestock	Upgrading of local chicken using improved cockerels.
		Upgrading of Yan-kasa sheep with Sudanis
		Cattle upgrading using exotic breed in terms of dairy production.
	-Fisheries	-Local fish trial and analysis. -Common carp seed production and varietal trials -Disease, coconut, oil palm and date palm
	-Agroforestry	-Make trial and research on the following exotic plants; apples, olive, grape vines, blue berry, coconut, oil palm and date palm.
	-Irrigation	-High yielding variety -Pest and disease tolerant variety - Early maturing varieties - Training blacksmiths on fabrication of modern farm implements.eg planter, threshers innovation and mechanization of local farm tools e,g hoe and rake.
	-Agricultural Mechanization	-Soil fertility improvement technology -Post harvest technology operation.
	-Extension Service	-Produce marketing techniques.
	-Women in Agriculture	-Food, labour saving devises and Agro-processing
Borno	Crops	Genetic improvement in crops and training on new technologies in Arable crops
	Fishery	Nutritional improvement
Yobe	Crop	Seed selection (adaptation to ecology) storage, processing, pest and diseases
	Horticultural crops	Processing methods of fruit and vegetables
	Livestock	Livestock feeds formulation and livestock management
	Fish	Hatching and management of fingerlings and diseases management
	Mechanization	New improved machineries for planting processing and storage
	Women in Agriculture	Development of new processing methods for agricultural crops

NORTH-CENTRAL ZONE		
States	Problem	Areas needing research
Kwara	Crops	-Conversion of organic manure into potable or handful use for farmers. -Best soil fertility and water management for crops produced in Kwara State.
	Horticulture	-Research on increase in gap or spacing especially on cash crops to encourage canopy development before over lapping. -Nursing of Fruits and Orchard for higher income generation in Kwara State.
	Livestock	-How to resolve conflict between herdsmen and crop farmers within the State. -What is the best genetic livestock animal for Kwara State.
	Fisheries	-Research on substitutes for higher cost food ingredients. -How to increase and improve Fish production as climate change threatens Fish farming.
	Agro-Forestry	-Tree cropping, Cashew, Cocoa, and Mango value chain development for Kwara State.
	Irrigation	Exploitation for groundwater for irrigation through drilling.
	Agricultural Mechanization	Mechanics for preserving vegetable and spices.
	Extension Services	-Best way to pass innovation to farmers that will make them to adopt new technologies in Agriculture.
	Women in Agriculture (WIA)	Research on vegetable processing and preservation to extend shelf-life of the crops
Kogi	Crops Horticulture Crops	Response performance of maize varieties under drought condition
	Livestock	Using Leucenea as improved livestock feed for small ruminants
	Fisheries	Growth and survival of clarias and Tilapia Zilli using pelleted Feeds
	Agro-Forestry	Control on termite attack and white flies infection on citrus, termite on coconut
	Irrigation	Development of simple and affordable drilling augers that can be operated and afforded by farmers.
	Agricultural Mechanization	Farm labour productivity should be improved through the uses of Agricultural machinery, implements and tools. Also, training of farm machine operators is needed for machine handling.
	Extension Services	E-extension through the Farmers Help Line for effective and efficient extension services delivery.
	Women in Agriculture(WIA)	Fruits Extraction-Fruits juicing, processing and packaging machine to handle waste of our fruits.
Niger	Crop	Rice spacing and farm layout techniques
Plateau	Horticulture Crops	Production of Mangoes, Orange Cashew, Coffee processing juice.
	Livestock	-Breeding of Turkey, Coccidiosis in poultry and treatment of young puppies.
	Fisheries	-Taking care of Finger-lings - Management of fish pond
	Agro-Forestry	-Fruit files research on Mango and Orange -Pre-mature droppings Mangoes, Cashew and Orange, oil line tress.

Nasarawa	Crop	Inclusion of vitamin A in crop gene More adaptable higher yield crops & drought resistance varieties
	Animals	Hatching Eggs using local incubators
	Fisheries	Genetics improvement in indigenous specie
	Agro-Forestry	Farming system on agro-forestry
Taraba	Crops Livestock	Development of High yielding crop (that will require small land) (to prevent herder/farmer conflict) Tree-planting attitude
Fct	-Fisheries Post harvest technology. -Agroforestry -Flood plains -Soil fertility - Irrigation	-Fish feed development. Fish integrated technology Development of post-harvest technology. -Training SMS irrigation staff on recent irrigation techniques. Research on flood plains and inundation effects on farming especially dry season farming. -Soil fertility test training. -General staff training on irrigation.

SOUTHWEST ZONE		
States	**Problem**	**Areas needing research**
Ondo	Horticultural crops	Indigenous crop production
	Livestock	Using non-conventional feed ingredients for feeding livestock
	Fisheries	Fish fry mortality Appropriate fish processing method Local production of fish feed of low cost
	Irrigation	Development of cost-effective irrigation system. GIS tools and remote sensing skills
Oyo	Crop	Planting of spices
	Horticultural crops	Utilization of spices
	Agro-processing	Processing and packaging of fruits and vegetables
	Livestock	Organic poultry production
	Livestock	Cross-breeding of local and exortic poultry
	Fisheries	Hygenic fish processing and packaging
		Domestication of shea tree and planting of locust bean
	Mechanization	Development of affordable mini irrigation for small-scale farmers
	Women in Agric.	Dev. Of gender-friendly equipment for farming and processing
Ekiti	Crops	-Control of fall Army worm particularly on maize -Improved seeds/seedlings. -Simple and affordable farm implement.
	Livestock	-Vaccine failure in poultry production. -In-breeding
	Fisheries	-Fish disease and water quality management -Feed formulation.
	Agro-Forestry	Control of fruit piecing moth and fruit flies in citrus, Tomato wilt, Corn borer infestation in plantain
	Extension Services	E-extension
	Women in Agriculture (WIA)	-Mushroom production technology. -Preparation of recipes from some food crops
Lagos	Crop	Prevention and Control of army worm
		Banana top bunch disease Fruit abortion in Tomato
	Livestock	Prevention and Control of African swine fever 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	Research into alternative cheap snail feeds
	Irrigation	Effects of drip irrigation system on vegetable production
	Agric. Mechanization	Fabrication of cheap, small farm equipment
	Extension Activities	Provision of extension services during emergencies
	Women in Agric.	Specific programmes for Nutrition Nutritional benefits agricultural products

Ogun	Crop	Seed-yam production through minisetts techniques
		Hot water treatment of sucker for plantain establishment
		Rice transplanting
Osun	Crop	Research on army worm infestation and control on pepper and tomato
	Livestock	Preventive measures in salmonella
	Fisheries	Crossbreeding of exotic catfish with local breeds
	Women in Agric.	Training on hygienic preparation and preservation of food

SOUTH-EAST ZONE		
States	**Problems**	**Areas needing Research**
Enugu	i. Crops	-Research on Cocoyam fungal attacks. -Technologies to cut down cost of line planting of rice
	ii. Livestock	-Technologies in ranching of mature cattle -Improvement of local goat with exotic breed through cross breed.
	Iii Fisheries	-Fish feed production using locally sourced Carbohydrate &Protein materials.
	iv. Agro-Forestry	-Technologies to domesticate agro-forestry tree crops that the State has comparative advantage
	v. Irrigation	-Local manufacturing of irrigation equipments using indigenous materials.
	vi. Agricultural Mechanization.	-Hire purchase of Agricultural mechanization equipment at affordable price.
	16. Extension Service	-Increase in extension and research contact by constant conduct of Refils, OFAR and MTRMs
	viii. Women in Agriculture(WIA)	Cheap source of WIA equipments to reduce unemployment among youths &women.
Ebonyi	i. Crops	-African gallmidse in Rice - Stem borer attack Rice/Maize
	ii. Fisheries	-High breeding fingerlings
		-Fast maturity and fertility of fish -Feed formulation
	iii. Agro-forestry	-Fruit Abortion
	iv Irrigation	-Inadequate land development
		-High cost of Irrigation facilities.
	v. Agricultural Mechanization	-Land tenure problem -Undulating terrain
	vi. Extension Service	-Climate change -E-extension
	vii. Women in Agriculture (WIA)	-Lack of fund

Imo	Crop	Wilting of cocoyam leaf Fruit abortion on coconuts, Bred fruit, kolanut, guava
	Livestock	Mange
	Fisheries	Eye-fluke in catfish
	Agro-forestry	Dry season mortality rate
	Irrigation	Fabrication of Tillage M/Cs suitable to local cultural needs
	Women in Agric.	Itchy effects of cocoyam
Anambra	Crop	Use of organic bio-pesticides in pest and disease control
	Horticultural Crops	Adoption of exotic breeds of horticultural crops
	Livestock	Upgrading of local breeding of livestock
	Women in Agriculture	Use of non- chemical or organic materials in preservation of crops
Abia	Crop	Prevention and control of fall army worm
	Horticulture	Production of early maturing varieties of Banana
	Livestock	Reduction of cost of feeding and feeding of livestock
	Fishery	Research on cost effective production of Tillapia
	Irrigation	How to make abundant water resources for dry season farming
	Agricultural mechanization	Development of simple, cheaper and modern farm machines
	Extension	Development of new extension model
	Women in Agric.	Development of modern storage

SOUTH-SOUTH ZONE		
States	**Problem**	**Areas needing research**
	Livestock	Optimum combination levels of concentrate feed and forages in the reproductive performance of rabbit
	Fisheries	Possibility of breeding and stocking of fingerlings on brackish water environment
	Agro-Forestry	Improved quality honey bee keeping , utilization and economic values of Nympha palm
Cross Rivers	Crops	-Influence of soil composition on grass growth -Use of Bio fertilizers produced from fermented organic waste in fruits vegetables production. -Hydroponics
	Livestock	Simple techniques for smoking maggots and termites as cheap sources of protein supplement to other feeds for poultry
	Fisheries	Easy and affordable methods of local feed production using local feed ingredients for fish.
	Agro-Forestry	Use of Bahama grass in erosion prone sites to enhance soil stabilization.
	Irrigation	-
	Agricultural Mechanization	-Fabrication of Local tool/implements that is relevant to farmers needs communities. -Production and use of hand-driven implements for land preparation.
	Extension Services	The strategy for involving rural farmers in Agricultural Bio-diversity conservation.

	Women in Agriculture (WIA)	More findings on high quality cassava flour recipes.
Bayelsa	Livestock	How to process cassava peels into the formulation of animal &poultry diets.
	Agro-Forestry	How to construct honey beehives (differential hives).New methods of harvesting the beehives.
	Women in Agriculture (WIA)	How to set up a Home-stead mush-room production to increase general income.
Akwa Ibom	Livestock	Utilization of locally-made simple incubators for hatching eggs
	Fisheries	Culture of other aquatic animals for example crayfish
	Agro-forestry	Control of funus attack on Colocasia esculenta leaves during rainy season
	Women in Agriculture	Effect control of pasteurization temperature on production of tiger nut milk drink nutritive value
Delta	Crop	Research on Tomato wilt, control of armyworm in maize
	Livestock	Management of droppings/dungs in populated environments
	Fish	Feeds Formulation, Fingerlings production and Effective poly-culture management
	Agroforestry	Vegetative propagation for rapid seedling multiplication
	Irrigation	Water rate requirement for various crops (application rate) Irrigation management in rice fields
	Mechanisation	Use of mechanical weeder Mechanized palm oil production for small palm oil processor Storage of agricultural crops
	Extension	Mainstreaming (CDD) community Development Driven in Extension Effective use of Social Media Platforms in Extension Service Delivery
	Others	Production of spores for edible mushroom
Edo	Crop	i. Tomatoes wilt ii. Effective control of armyworm in maize
	Livestock	Management of droppings/dung in populated environments
	Fish	i. Feed formulation ii. Fingerlings production iii. Effective poly-culture management
	Agroforestry	Vegetative propagation for rapid seedling multiplication
	Irrigation	i. Water requirement for various crops / rate of application ii. Irrigation management of rice fields
	Mechanisation	i. Use of mechanical weeder ii. Mechanized palm oil production for small palm oil processor iii. Storage of agricultural crops
	Extension	i. Mainstreaming (CDD) Community Development Driven in Extension ii. Effective use of Social Media Platforms in Extension Service Delivery
	Women in Agriculture	Mushroom – Production of spores for edible mushroom

16.0 SPECIAL PROJECTS

The APS 2020 report on special projects as highlighted in the table 16.1 indicates that about 23 States gave a comprehensive data on the activities of the special projects in their respective States. The remaining 14 States which includes Osun, Kano, Kogi, Ekiti, Sokoto, Kaduna, Imo, Ogun, Oyo, Anambra, Ondo, Rivers and Ebonyi did not presented data on the subject matter. A few of the special projects listed in Table 16.1 include AGRA in some North West and North Central States of the country. The priority attention was on training and capacity development for CBAs/CDAs and crop improvement majorly for rice and maize value chain.

Also worthy of mention is the Climate Change Adaptation and Agribusiness Support Programme (CASP) which is a seven-year programme (2015-2021). CASP is being implemented in seven Northern States of Nigeria: Borno, Jigawa, Katsina, Kebbi, Sokoto, Yobe, and Zamfara, targeting a total of 727 village areas (VAs) across 104 Local Government Authorities (LGAs). With a projected outreach of 727,000 households, CASP's primary objectives include: (i) pulling 242,000 people out of poverty based on the matrix of a daily income of US$2.0 per capita (World Bank definition); (ii) generating a 30 per cent increase in net income for targeted households; and (iii) increasing by 40 per cent the number of farmers with reduced erosion in their cropping fields. It promotes agriculture as a business to enhance the income and livelihoods of farmers along some selected value chains. The project promotes productivity enhancement, using agriculture as a principal driver. It integrates climate change resilience adaptation measures, and has a private sector orientation in the provision of extension services. The programme is jointly financed by Federal, participating State Governments, participating communities and the International Fund for Agricultural Development (IFAD). The priority target groups were the moderately poor and the productive core poor households, who represent over 90% of the population in the programme area States. A particular focus on targeting women and youth was reflected in all programme activities. Seven commodities were selected based on their prevalence in the programme area and market opportunities. These are rice, sorghum, maize, cowpea, wheat, groundnut and millet. A key focus area of the programme's interventions is on creating and strengthening enterprises and activities that are directly linked to adding value to production, processing and marketing and addressing constraints along the value chains of the selected commodities.

More so, another special intervention project that is worthy of mention is SSA Global 2000 with impacts in some States of North East and North West zones. The priority collaboration varies from Education (Safe, Sasakawa Foundation), crop productivity, post-harvest and agro-processing.

Other priority reports of special projects in some other States in the SE, SS and SW focused mainly on root crops value chain technologies, livestock value chain and marketing. These projects were facilitated majorly by RTEP, NPFS and World Bank.

Table 16.1: Special projects (North East)

State	Project	Take off year	Key activities	Number of project sites	Sponsor	Percentage chievement	Number of beneficiaries	Remark
Adamawa	Input training	2016	Input training	4 LGAs	OXFAM	75%	32,000	
	Input training	2018	Input training	6 LGAs	UNDP	70%	2,000	
	Input training	2018	Input training	2 LGAs	UND-GER	85%	2,000	
	Input training	2018	Input training	3 LGAs	GIZ	70%	4100	
	Input training	2016	Input training	16 LGAs	FAO	90%	52,000	
	Input demonstration	2016	Input demonstration	4LGAs	ICRISAT	80%	11,000	
Bauchi	DCP School lab	2018	Soil analysis of some 150 selected farms in 67 communities of 20 LGAs	20 LGAs	OCP Africa		-	
	Agri-booster Project	2018	Dry season river farming	7 LGAs	OCP Africa of Bauchi State Govt.		-	
	Integrated striga management in Africa	2015	Striga management technology (Maize, Legumes, cropping system) Push-Pull demonstration, Agronomy integrated trials e.t.c	18 LGAs	IITA/ISMA		11%	
	North-East food security and livelihood Emerge-Support Project	2017	Support to IDPs	25	IDA/FGN and State		30%	
	Fadama III Additional finance	2015	Support to Rice and Sorghum farmers	20 LGAs	FGN and State		30%	

State	Project	Take off year	Key activities	Number of project sites	Sponsor	Percentage of achievement	Number of beneficiaries	Remark
Borno	Anchor-Borrower scheme	2017/2018	-	-	FGN	-		
Gombe	SSA Global 2000	1998	-Crop productivity -Post harvest and Agro processing. -SAFE, SASAKAWA Foundation on education -Monitoring and learning system. -Animal introduction	5 LGAs 2 LGAs	NIPPON FOUNNDATION.		75% 98%	
	UNDP-GEF-IAP-FS	2017	Training, Construction of Agric centres, Demonstration, Livestock, Fisheries, Erosion control, Agroforestry, Rural finance and Bee-keeping	15	UNDP		40%	

Table 16.1: Special projects (North West)

State	Project	Take off year	Key activities	Number of project sites	Sponsor	Percentage of achievement	Number of beneficiaries	Remark
Katsina	IFAD-CASP	2015	Production and climate change resilience	66	IFAD/FGN	60%		
Kebbi	CARI	2016	Providing farmers with good rice seeds	3	GIZ/Kebbi State Govt.	100%		
	ATASP-1	2015	-Infrastructural development. -Outreach activities on Rice, Sorghum and Cassava.	8LGAs	AFDA	80%		
	IFAD-CASP	2015	Capacity building and Agric services.	14LGAs	IFAD/IDA	70%		
	FADAMA (III)	2014	Input supply, Rural infrastructure, asset acquisition and capacity building.	14LGAs	IFAD/IDA	90%		
	RAAMP	2018	Rural access	500 kms	World Bank		Processing stage	
Zamfara	Trimming	-	-	-	-	-	-	-
	Agric for food and Job(AFFJ)	2020	-	-	-	-		

Table 16.1: Special projects (North Central)

State	Project	Take off year	Key activities	Number of project sites	Sponsor	Percentage of achievement	Number of beneficiaries	Remark
Benue	FADAMA III AP	2019	To sustainably increase farmers' income	174	WB/BNSG/FGN	41.95%		
	IFAD	2014	Rice and cassava value chain	5LGAs	IFAD	94%		
FCT	Collaboration program on Nutrition with JICA	2019	-Training of extension agents and farmers on planting of nutritious crops. - Demonstration plot for teaching of technologies e.g fertilizer application, weeding and spraying.	2LGAs	JICA	50%		
Kwara	JICA	2019	Improved rice parboiling and processing.	Zone A, B, C and D	Federal Government and Japan Govt.		70%	
Nasarawa	Good agric. Practives	2016	Guide farmers on rice production	11 LGA	GIZ		72%	
	Farmers Business School (FBS)	2017	Guide on Agric Business	11LGA	GIZ		72%	
	Processing Business School (PBS)	2017	Guide on improvement in processing and marketing.	11LGA	GIZ		10%	
	Rice Advice	2016	Timely application of fertilizer on Rice	11LGA	GIZ		50%	

State	Project	Take off year	Key activities	Number of project sites	Sponsor	Percentage of achievement	Number of beneficiaries	Remark
Nasarawa	Small Holder Horticultural Empowerment	2016	-	11LGA	JICA		-	
Niger	Niger AGRA rice consortium project	2018	Rice value chain	250 demos	AGRA	90		
Plateau	Plateau State Potato Value Chain Support Project (PS-PVCP)	2018	A. Infrastructure i. Spot Improvement of 200km Rural Roads ii. Construction of Small Earth Dams iii. Construction of Hydraulic Structures (Washbores, Tubewells, Spring Capture and Water Harvesting Structures) iv. Construction of Community Markets v. Construction of Diffuse Light Stores vi. Construction of Processing Centres 16. Construction of Tissue Culture Laboratory 16. Supply of Water Pumps for Irrigation B. Capacity Building i. Training of Farmers ii. Training of Processors iii. Training of Marketers	State-wide	African Development Bank (AfDB)	60	11, 500 Households 100, 000 Farm Families 300. 000 Indirect Beneficiaries	On-going

			iv. Training of Group Leaders v. Training of Service Providers vi. Training of ADP Staff 16. Training of Project Staff 16. Field Demonstrations					
Taraba	FADAMA III	2008	Empowerment	Statewide	World Bank		96%	
	IFAD_VCDP	2015	Value chain	Statewide	IFAD		80%	
	CDSP	2008	Infrastructure	Statewide	WB		86%	
	RTEP	1994	Roots and tubers	Statewide	WB		98%	
	CASSAVA PLUS	2010	Cassava promotion	Statewide	TRSG		96%	
	OXFAM	2019	Empowerment	6 LGAs	EU		On-going	

Table 16.1: Special projects (South West and South East)

State	Project	Take off year	Key activities	Number of project sites	Sponsor	Percentage of achievement	Number of beneficiaries	Remark
South West								
Lagos	NPFS	2007	Addressing household food security needs, capacity building, conflict resolution, provision of revolving loan & inputs	9	FMARD, State, LGA			
	APEALS	2019	Empowering farmers groups on 3 value chains (poultry, rice & aquaculture. Capacity building, empowerment of women and youth	Statewide	WB, FMARD	100%		
	FADAMA Nigeria Cares	2020	Training of farmers. Provision of certified inputs	Statewide	WB, FMARD	100%		
South East								
Abia	FMARD/ SG2000/ ADP	2019	Rice and Cassava production		FMARD/SG2000		56	
Enugu	ATASP-1	2017	Cassava, Rice	3 LGAs	AFOB	-		
	APPEALS	2019	Cashew, Rice, Cassava &Poultry.	State wide	World Bank	-		
	VCDP	2019/20	Rice & Cassava	5 LGAs	IFAD	-		

Table 16.1: Special projects (South South)

State	Project	Take off year	Key activities	Number of project sites	Sponsor	Percentage of achievement	Number of beneficiaries	Remark
Bayelsa	Ultra modern fish farm Angalabiri	2014	Construction on going	BYSA	BYSG		40/50	
	Ultra modern fish farm Ogbogoro	2014	Construction on going	BYSA	BYSG		30/40	
	Bayelsa Aqua culture village	2016	50 Earthen pond,fish processing factory,hatchery complex,restaurant,ware house,water station and power substation	BYSA	BYSG		100	
Cross/River	CR-Appeals	2018	-Input support, market facilitation. -Technical Assistance infrastructure support.	State wide	World Bank		10%	
Delta	RTEP	2001	Root crops value chain technologies	9	WB, FG and State Govt	80		
	NPFS	2002	Crop, livestock value chain and marketing	6	WB, FG and State Govt	60		
Rivers	Sasakawa	2019	Crops/Livestock	4 LGAs	SSA Global 2000/FMARD		70%	
	State Employment & Expenditure for results (SEEFOR)	2013	-Implementation of small-scale Rural infrastructure for some FADAMA community Associations -Establish sub(micro-project) Aquaculture, Livestock, Lobsters etc (SFCAs) -Capacity building for SFCAs	46LGAs 664 46	EUWB/FG RSG LGA RSG LGA		98% 98% 98%	

Table 16.1: Special projects (South South)

State	Project	Take off year	Key activities	Number of project sites	Sponsor	Percentage of achievement	Number of beneficiaries	Remark
Edo	1. IFAD-Life 2.Edo Agri-preneur programme	2020 2019	Support unemployed and underemployed youths as well as women headed household in production, processing and market of selected commodity in their community. Land development, crop production, livestock production, catfish prod, broiler prod, farm mechanization support, offtake, farm sponsorship(inputs)provision and Extension services.	10 LGAs 30 LGAs	IFAD/FGN/NDDC/STATE GOVT.	Catfish (430,000 stocked Poultry:156/125,000 Rice-377/716 Hec Maize:284/816 Hec Cassava.1,015/1,760Hec	-	-Project lunch in December 2019. Edo State keyed in May 2020 for beneficiaries only -Farm is in clusters
	3.Independent Farmer's initiative	2020	Provision of inputs (seeds, fertilizer and crop protection products) for farmers I. 4 focal crops: rice, maize, cassava and soyabean.	18LGAs	Edo State Government	>3,500 farmers reached		On-going. Farmers can access inputs for maximum of 5 hectares

17.0. GENERAL CONSTRAINTS TO AGRICULTURAL PRODUCTION

The section of the survey classified agricultural constraints or challenges to nine (9) areas: Covid-19, rainfall/ weather, farm inputs, production/labour, mechanization, extension activities, agricultural broadcasts, e-extension and insecurity. The data are presented according to the spread for the country, using the number of States as unit of measurement.

1. Constraints related to Covid-19 Pandemic

The year 2020 experienced the global Covid-19 pandemic, which affected all economic activities, including agriculture. Consequently, the data in Figure 1 show that the most widespread constraint of the pandemic was the increase in prices of inputs (90%), followed by shortage of farm labour (67%), which was due mainly to restricted mobility (60%) both in the rural and urban communities. As at 30th September 2020, this pandemic had affected about 33.7 million people, of which 1.1 million have died globally. In Nigeria, it affected about 59 thousand and killed about 1,110 people. The number of infection cases and deaths thus made over 35% of farmers to be afraid of contracting the disease through contact with infected persons while attending to their farm enterprises.

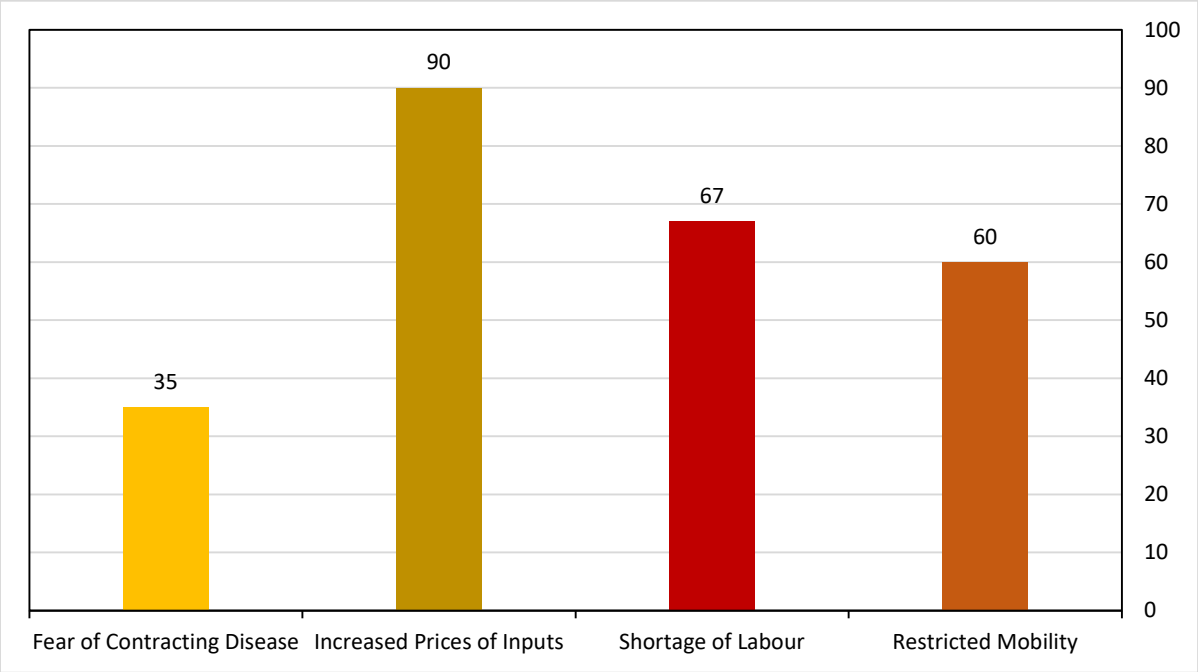
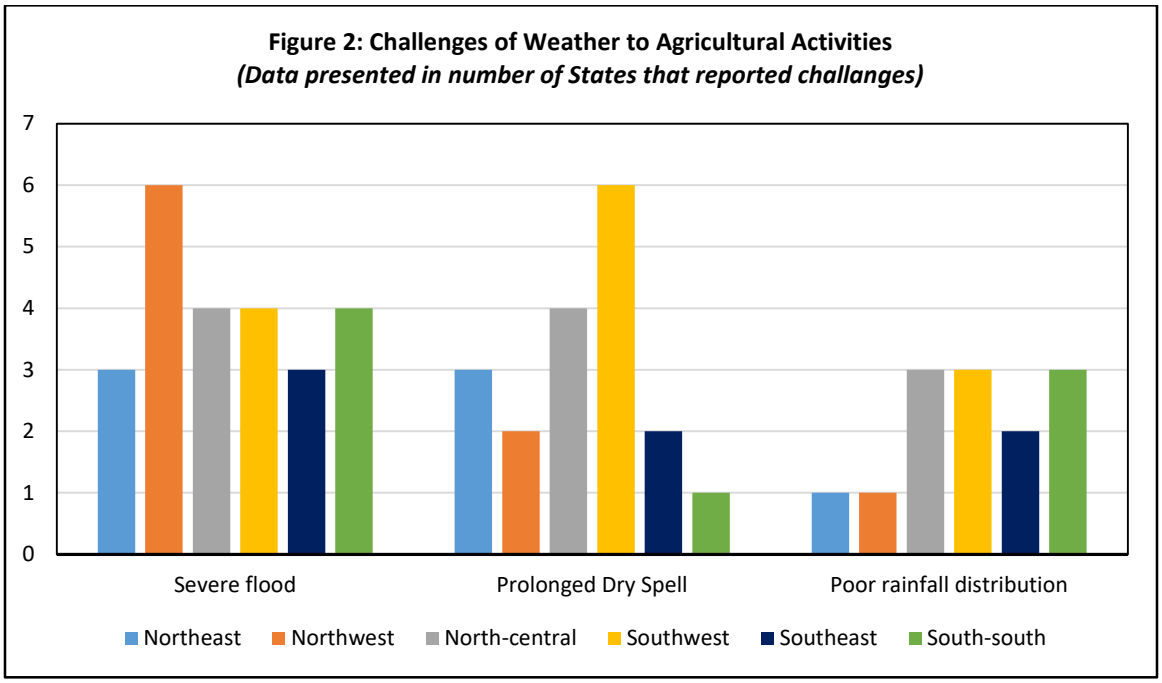


Figure 1: Constraints related to Covid-19 Pandemic (data presented in %)

2. Rainfall and Weather-related Challenges

In early February, the Nigerian Meteorological Agency (NIMET) warned in its Seasonal Rainfall Prediction (SRP) in Abuja that Nigerians should prepare for heavy rainfall that may result in flooding and other social disequilibria in some parts of the country. Consequently, between 10th and 16th September, more than 20 persons were reported dead and hundreds of thousand

hectares of rice, maize and sorghum fields destroyed in the northwest alone. The data (Figure 2) also affirm these predictions of NIMET, showing that severe flooding was most frequent in the northwest; moreover, occurrences of prolonged dry spells (of about 5 weeks) were reported to have grossly undermined farming activities in the southwest, where it was reported that it lasted in about five States for more than 5 weeks during the season. Poor rainfall distribution was reported in 3 States each for the north-central, southwest and south-south zones.



3. Farm Input provision, availability and accessibility

In Nigeria, agricultural productivity is mainly dependent on adequate rainfall and quality of inputs used (such as seeds, animal stocks, fingerlings, fishing nets, fertilizers, herbicides). The 2020 data in Figure 3 show that government inputs were largely inadequate in 30 States (for seeds and stocks) and 23 States (for chemicals); and unavailable/ inaccessible in 28 States (for chemicals) and 27 States (for seeds and stocks). The implication of these data is that agricultural productivity was more constrained by input availability and accessibility that it was in 2019.

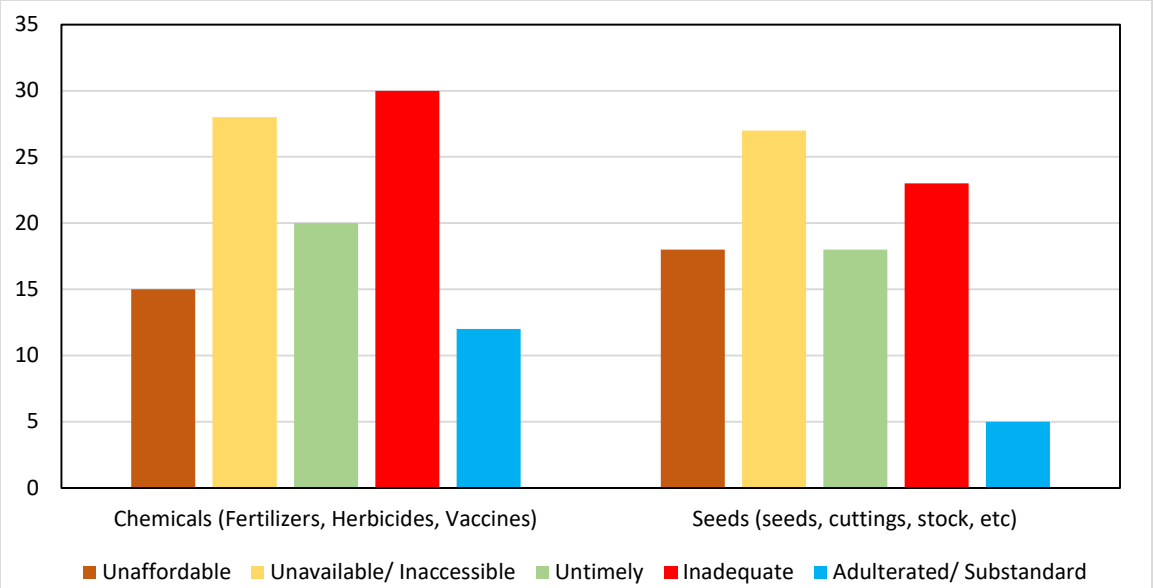


Figure 3: Farm Input-related challenges
(Data presentd by number of States reporting incidents)

4. Challenges of labour and pests/diseases

The management of a farming enterprise has important implications for agriculture in Nigeria, where the majority of the farmers are smallholders with low agricultural productivity. Insect pests and plant diseases, for example, are major yield-reducing factors, threatening food security and farmers' incomes. Such pests and diseases can lead to as high as 50% yield loss in some crops. Farmers who actively manage pests rely primarily on chemical insecticides, but which are often constrained by the cost and availability of such chemicals (see Figure 3). The other major farm production challenge is labour cost and availability. The data in Figure 4 show that the highest challenge to agricultural production in 2020 was high cost of labour (both manual and mechanical), as 36 States reported dramatic increases in costs of labour, such as land preparation, planting, weeding and harvesting. This is followed by high prevalence of diseases (for crops and livestock). This trend is similar to what was reported for the 2019 season. The data also showed the presence of pests and diseases on crops, as well as on livestock in 30 and 23 States respectively. There were widespread reports of new castle disease, Gamboro and coccidiosis on poultry; CBPP, tuberculosis and foot and mouth disease on cattle; PPR on sheep and goats; birds and snake attacks on fish.

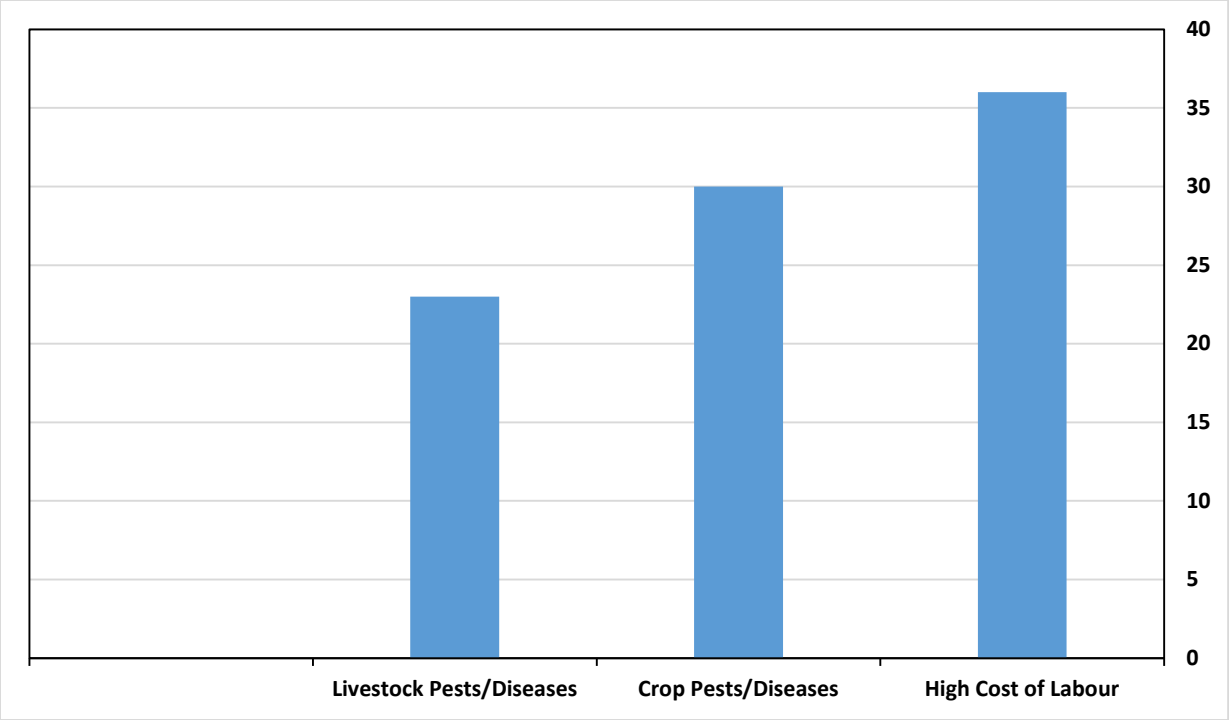


Figure 4: Farm Input-related challenges (data presented in number of States reporting incidents)

5. Agricultural Mechanization

There has not been much difference in data on agricultural mechanization for the past four years. Comparatively, however, there are some slight changes between data for 2019 and 2020. Figure 5 shows that Nigerian farmers fared better in 2020 with regard to tractor availability/ accessibility and cost of hiring than in 2019 - with 29 and 30 States in the current year, as against 31 and 32 States in the previous year, respectively, reporting these challenges. With regard to the provision of quality irrigation facilities, as more States were constrained in 2020 than in 2019. Cumulatively, however, 2017 seems to be the most constrained year for the farmers on agricultural mechanization.

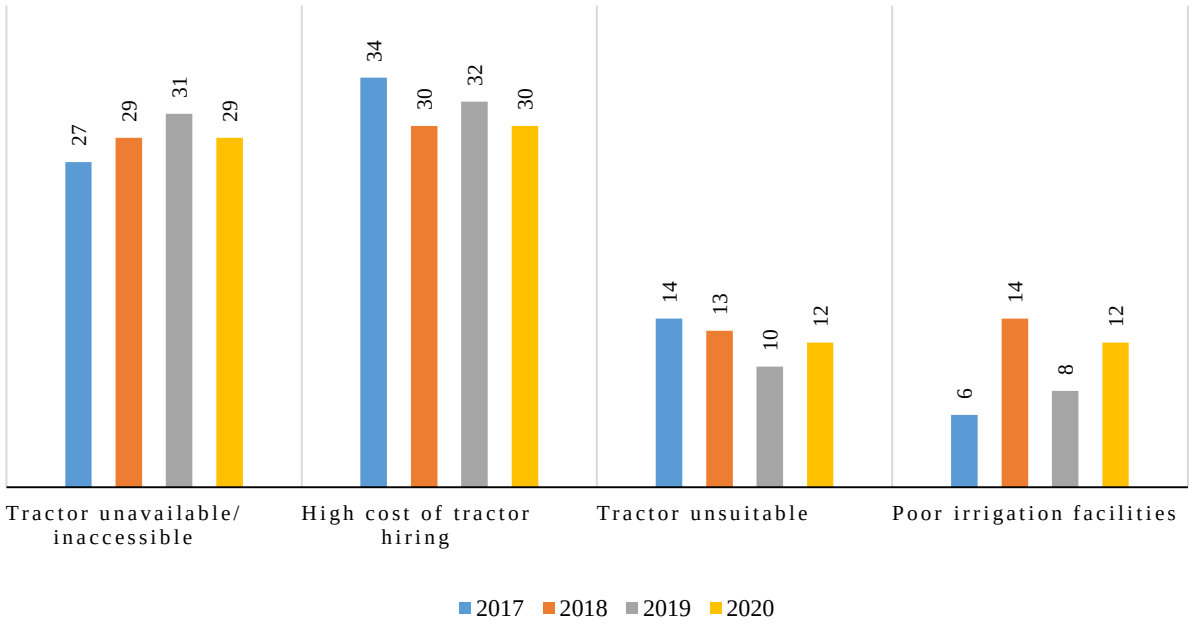


Figure 5: Comparative Data on Mechanization (2017-2020)

6. **Extension Provision Activities**

Extension is a major key to the development of a country's agricultural sector. Without the right application of agricultural technology, no farmer can maximise productivity. The 2020 survey data showed that extension activities have continued to be in a decline, a worrisome trend since 2009. The data in Figure 6 show that the ADPs, who are the primary extension providers in the country, were highly under-staffed and underfunded. This poor funding situation is responsible for the very low level of staff capacity and absence of vehicles for fieldwork. The implication of these is that farmers are left without quality information for agricultural decisions. The data show that as much as 24 of the 36 States and the FCT had zero release of fund for capital project in 2020; more so, 10 of the 13 States that had some level of fund release indicated that what they got was inadequate. The three-year comparative data show that the 2020 situation was neither better nor worse than those of previous years.

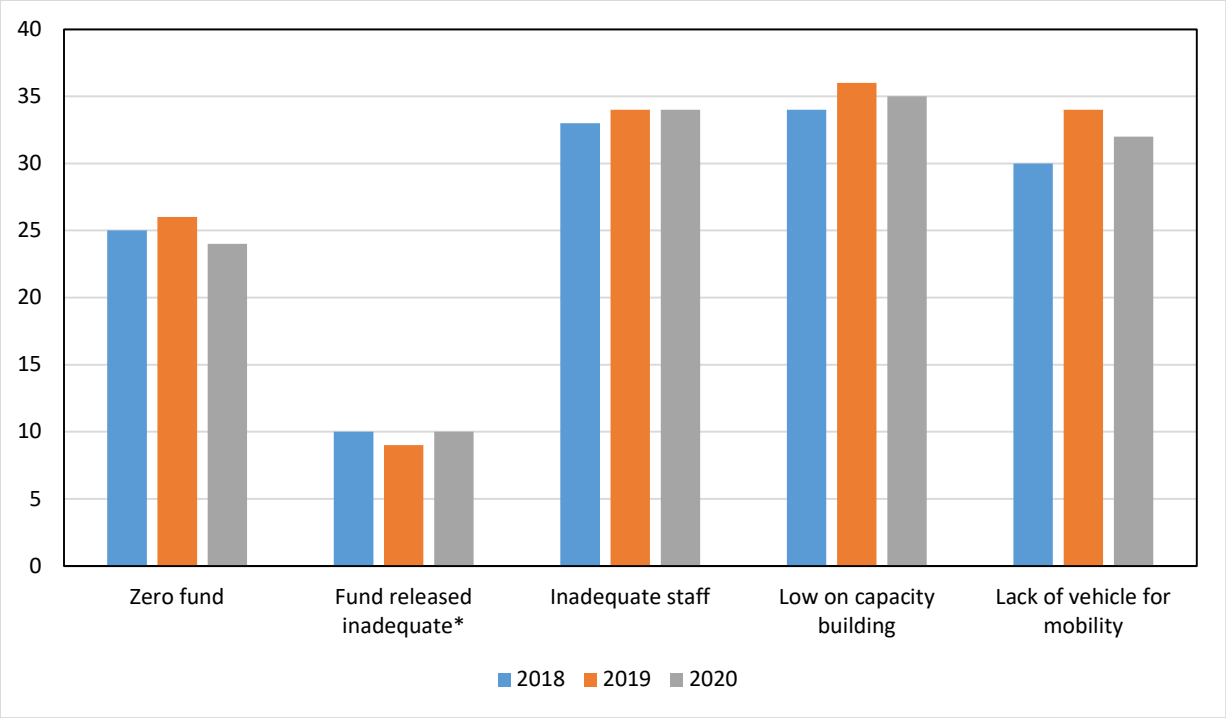


Figure 6: Comparative data on constraints related to ADP activities (2018-2020)

NB: *Of the ADPs that got funds for capital projects (13, 10 and 13 ADPs for 2018, 2019 and 2020 respectively)

7. Agricultural Broadcast

Each State ADP is expected to produce and disseminate agricultural information through conventional and new media to farmers in the languages and formats they are familiar with. The consequence is that farmers are deprived the requisite information for quality agricultural decisions. The survey data in Figure 7 show that all the 37 ADPs have been constrained by high cost of airtime to effectively produce and air agricultural programmes. The activities of agricultural broadcast and information dissemination in the States have been highly compromised by the poor financial and other resources (see Figure 6). Moreover, 30 ADPs were constrained by the lack of equipment to make such production. Notwithstanding, several States acknowledged that some agricultural broadcasts were produced and aired by agricultural organizations in the private sector, solely or in collaboration with the ADPs.

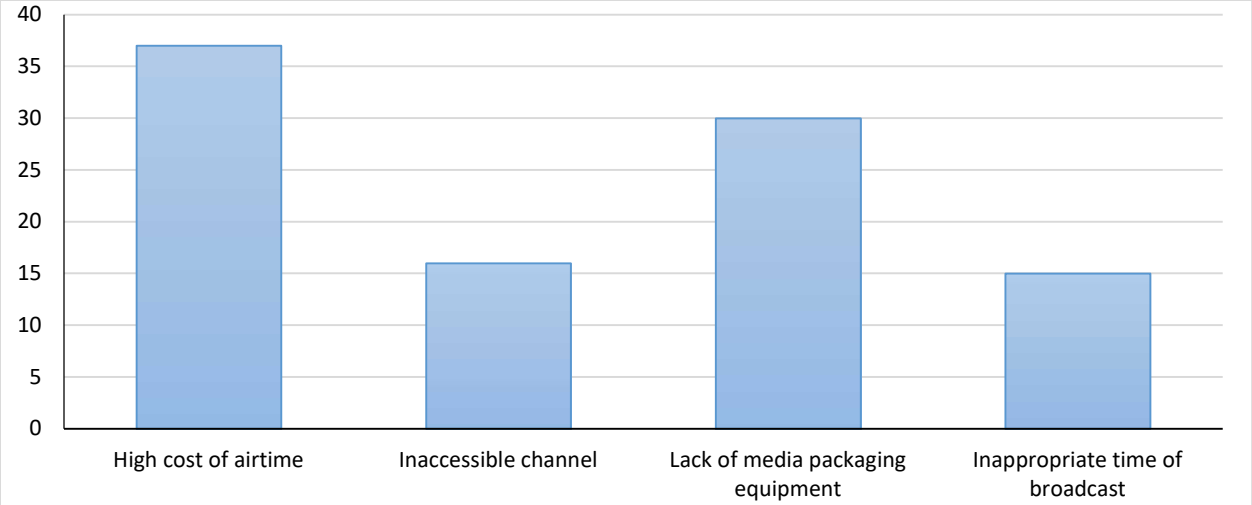
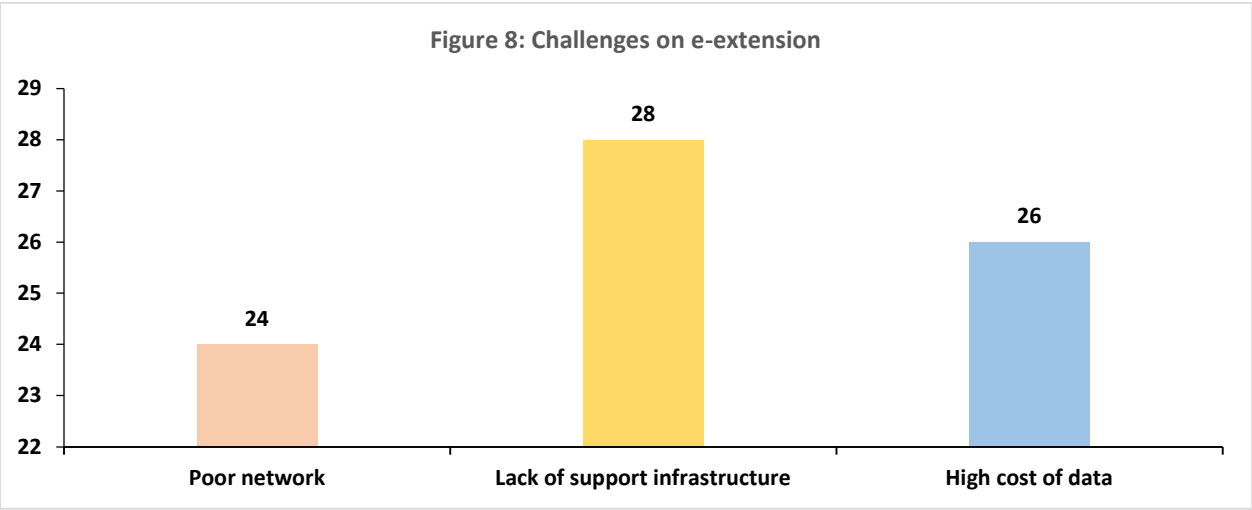


Figure 7: Constraints of agricultural broadcasts

8. E-Extension

The survey data in Figure 8 reveal that staff of 28 ADPs and 26 ADPs were not able to effectively use e-extension channels due to inadequate support-infrastructure and high cost of data, respectively. This way, the Nigerian public extension service providers were unable to key into this crucial global infrastructure for information dissemination and professional collaboration and partnership in modern agriculture—this includes access to and use of the National Farmers Helpline Centre that has been established by the government for the good of our farmers. Indeed, profitable agricultural advisory services have shifted from conventional methods to the use of new media, using today's information and communication superhighways or the Internet. In consideration of the data in Figures 7 and 8, this means that the chances of Nigerian farmers to receiving real-time agricultural information in 2020 were very slim.



9. Security-related Challenge

The data in Figure 9 show that there has been a drastic increase in insecurity matters across the nation. The data show that herders/farmers clashes, which reduced between 2017 and 2019, have taken an upward trend in 2020. In fact, the data show increases for all the indicators of insecurity with regard to farming—cattle rustling, kidnapping, militancy, banditry, communal clashes, etc. While the 2019 data showed decline in militancy activities especially in the south-south, southeast, and northeast, the 2020 data are showing worrisome trends. It is well known that violence and insecurity do have far-reaching implication for economic development, especially in the areas of agriculture and foreign direct investments. The 2017-2020 data are suggesting that violent crimes and armed conflicts are not abating and that these are having deleterious effect on agriculture in Nigeria. Kidnapping and terror attacks have, for example, taken a completely dangerous dimension in recent years.

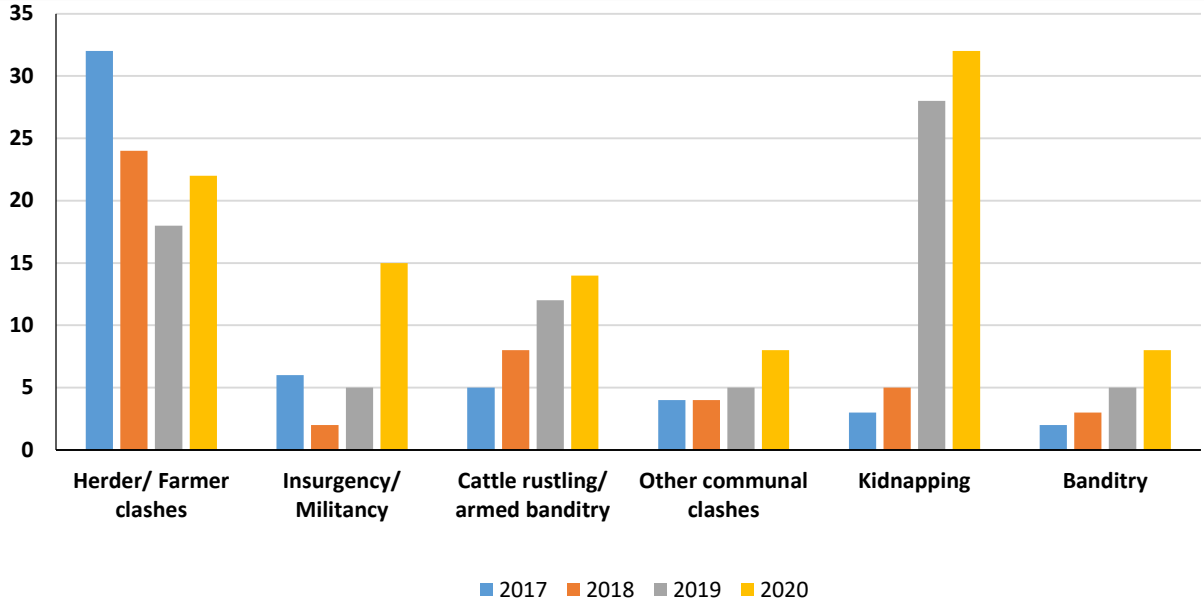


Figure 9: Comparative data on contraints related to insecurity (2017-2020)

18.0. CONCLUSION AND RECOMMENDATIONS

18.0. CONCLUSION AND RECOMMENDATIONS

The 2020 Wet Season Agricultural Performance Survey in Nigeria was conducted with the support and collaboration of all State ADPs and ministries of agriculture and many other organizations. The survey has presented a vivid picture of agricultural activities and development in the country. The results indicated, among others, that the Covid-19 global pandemic greatly affected agricultural activities in the country. The results also highlighted the challenge of rising insecurity situation, as well as the declining State of extension provision in the country and its threat to national food and nutrition security. As a result, the field outlook for 2020 and production forecasts showed that outputs will be less than those of 2019 in nearly all areas of agriculture. Therefore, the following recommendations are made:

1. **Investment in climate-smart agriculture**: The incidences of epidemic floods, draught pests and disease across the country are becoming very frequent and worrisome. Research in climate change have shown that it is imperative for governments across the world to develop climate adaptation technologies. Thus, there is the need for government to increase investment (funding and infrastructure) as a rapid response strategy (involving specialists in agricultural research, extension, and climatologists) for correcting this monumental imbalance in agriculture and the ecosystem. The strategy should take into cognisance the development and promotion of disease-resistant, drought-tolerant, flood-tolerant, and early maturing varieties.

2. **Development of strategy to strengthen agricultural extension activities**: This survey has established that, since 2009, extension activities have been on the decline, mainly due to dwindling funding for capital projects. This problem has led to low capacity development of extension personnel, unavailable extension packages, and lack of mobility vehicles for field visits, poor extension-farmer contacts, low technology transfer (MTPs, FNTs, SPATs, OFARs, FFS, etc) and farmers' group management, among others. There is thus the need for governments at both State and federal levels to develop a strategy for efficient and timely funding of ADPs and other relevant agricultural extension and advisory providers in the country. The strategy should also include the recruitment of more staff to replace retired or dead ones.

3. **Building a lasting and sustainable grass-root extension delivery institutions at Federal and State Government levels**. Agricultural extension service is the bridge between research and farmers and therefore should have institutional structures on ground that are not subject to vagaries of administrative changes. The States ADP have long been the grass-root extension delivery structure in the country. The Federal Ministry of Agriculture AND Rural Development should intervene in the recent scrapping of Oyo

State ADP and the deployment of all her staff to the State Ministry of Agriculture. The ADP has served farmers in the State through her extension delivery mandate under successive administrations. It is a dysfunctional approach to collapse the structure by a government that have been showing interest in agricultural development.

4. **Evolving a definitive action plan on stemming insecurity:** The spate of insecurity in the country in 2020, especially with implication for agricultural activities, became unbearable. Kidnapping, armed banditry/ rustling activities, and herdsmen/farmer conflicts and militancy had risen to an alarming proportion. Large farmlands were overrun by armed bandits and herders, and farmers were frightened out of their lands across the country, to the point that many have now completely abandoned farming activities. Indeed, government has made tremendous efforts in containing the activities of militants and insurgents in recent years; but rather than abating, incidences of insecurity seem to be on a continuous rise. The government needs to evolve a more definitive action plan to stem the challenges of insecurity for the nation.

5. **Enhancing productivity through an effective input subsidization blueprint**: Although there was level of government support and intervention in the area of subsidised inputs to farmers, a large number of the farmers could not access such support; the few who had access could not afford the subsidized prices, while those who could afford them could not get enough for their farming needs. A compromise on agricultural inputs is a compromise on yield quantity and quality, as well as on income. There is thus a need to evolve a cost-effective and efficient input subsidization blueprint especially on seeds/seedlings/breed stock, chemicals and credit.

6. **Increasing support to the National Farmers Helpline as an e-Extension strategy to boost advisory delivery**: The ratio of extension agent to farm families has remained astronomically low - about 1:14,000 for some States, instead of the FAO recommended 1:1000. Also, the high rates of mobile phone and internet penetration of the country, as well as the large population of youths create an enormous opportunity for an e-extension blueprint that will ensure a robust agricultural knowledge and information database. In this regard, the National Farmers' Helpline should be given all the necessary support (human and material resources, as well as a conducive policy environment) to be fully operational. The Helpline Centre should be facilitated to secure a short-code (of 4 digits) for operation with the help of NCC and FMARD; currently, it uses a SIM bank and a regular 11-digit phone number for its calls, which is not user or cost-friendly. Therefore, to achieve an information-based and ICT-driven agricultural extension system, the Helpline should be in full operation, with subsidized calls to and from farmers, to strengthen their production-enhancing indicators.

7. **Setting up of an Agricultural Trust Fund to cater for farming activities, especially in periods of emergency**: The impact of the global Covid-19 pandemic on agricultural productivity in 2020 has been enormous. Although the havoc of this pandemic was felt globally and there was some forms of palliatives given to Nigerians, the impact could have been minimised if an agricultural trust fund had been in operation. Therefore, the government should set up an agricultural trust fund that would cater for farmers and farming activities, especially during periods of emergency. A component of the Draft Policy on Agricultural Extension for Nigeria, which is currently with the Federal Ministry of Agriculture and Rural Development (FMARD) concerns the operation of a trust fund on agricultural extension – this takes care of farmers, farming inputs, and agricultural advisory. Therefore, it is important that Government expedite action on legalising this policy document through an accelerated passage at the National Assembly.

LIST OF FIELD SURVEY RESOURCE PERSONS

S/No	Team	Name	Institute/Agency	State 1	State 2
		Prof P. I. Bolorunduro	**NAERLS**	**National Coordinator**	
1	1	Dr. S.A. Makama	NAERLS	Kebbi	Sokoto
2		Muhammad Garba B	SRRBDA		
3		Amina B. Shehu	NAERLS		
4	2	Dr. S. H. Kura	NAERLS	Zamfara	Katsina
5		Hassan Muhammad	NAERLS		
6		Alawode Adewale	NASC		
7	3	Prof. A. A. Mukhtar	IAR	Jigawa	Kano
8		Suleiman Nazir Jamil	NAERLS		
9		Bala Aminu	NAERLS		
10	4	Dr Mohammed Makeri	NAERLS	Niger	Kaduna
11		Dr Mohammed Ishaq	NCRI		
12		H.J. Kagbu	NAERLS		
13	5	Dr F.O. Issa	NAERLS	Kwara	Kogi
14		Mustapha B. Mamman	NIMET		
15		Dr Jacob Adzenga	NAERLS		
16	6	Dr Esther Okwori	NAERLS	Plateau	Nasarawa
17		Ibrahim Garba	SG2000		
18		AbdulWahab Balarabe	NAERLS		
19	7	Dr. Engr. T.O. Olanrewaju	NAERLS	Gombe	Bauchi
20		Ibrahim Bako Danladi	FDF&A		
21		Sada A. Muhammad	NAERLS		
22	8	Dr. Mohammed Goni	NAERLS	Borno	Yobe
23		Yahaya Musa Mahmud	NAERLS		
24		Dr. Bashir Baba	LCRI		
25	9	Dr. Rilwanu Umar	NAERLS	Adamawa	Taraba
26		Tambul N. Buba	FDAE		
27		Jamilu J. Adam	NAERLS		
28	10	Engr. Aminu Fagge	NAERLS	Enugu	Benue
29		Felicia Offor	NBS		
30		Labaran Sani	NIRSAL		
31	11	Dr. Joel Omeke	NAERLS	Imo	Anambra
32		Dr. Mark Hassan Tokula	NRCRI		
33		Uteh A. Sunday	NASC		

S/No	Team	Name	Institute/Agency	State 1	State 2
34	12	Dr A. Anamomeh	NAERLS	Abia	Ebonyi
35		Ukonu Ekannah	NAERLS		
36		Dr. Emmanuel Elimi	FDV&PCS		
37	13	Dr. A.O. Iyiola-Tunji	NAERLS	Edo	Delta
38		Dr Lucky Igene	NIFOR		
39		Engr. Idongesit Wobo	NAERLS		
40	14	Prof. L.B. Taiwo	IAR&T	Ondo	Ogun
41		Ako J. Eleojo	FDAP&HS		
42		Omisope T. Emmanuel	NAERLS		
43	15	Adewumi Adesina	NAERLS	Lagos	Oyo
44		Mary O. Onaolapo	FDAE		
45		Muhammad Hudu Ibrahim	NAERLS		
46	16	Engr. A.A.Wahab	NAERLS	Ekiti	Osun
47		Akpama Reuben	FDA		
48		Ayuba O. Ibrahim	NAERLS		
49	17	Dr. H.U. Onimisi	NAERLS	Cross-River	Akwa-Ibom
50		Lawal Nasiru	FDAE		
51		Ahmed Sani	NAPRI		
52	18	Dr. Suleiman Abudu	NAERLS	Rivers	Bayelsa
53		Dahiru Baba	NAERLS		
54		Jalal Tijjani	FDA		
55	19	Mrs Esther Ladan	NAERLS	FCT	FMARD, Other Agencies
56		Itodo Emmanuel	P&PCD		
57		Fatima Bello	NAERLS		

FIELD SUPERVISORS

S/No.	Name	Zone
1.	Prof. M. K. Othman	North West
2.	Pro. Sanni Yusuf	North East
3.	Prof P. I. Bolorunduro	North Central
4.	Prof E. I Ikani	South East
5	Pro C. K. Daudu	South South
6	Engr. A. O Lawal	South West

REPORT WRITERS AND REVIEWERS

Report Writers		Report Reviewers	
S/No.	**Name**	**S/No.**	**Name**
1	Engr. A. O. Lawal	1	Prof. P. I. Bolorunduro
2	Dr A. O. Iyiola-Tunji	2	Prof. E. B. Tologbonse
3	Dr S. A. Makama	3	Prof. M. M. Jaliya
4	Dr F. O. Issa	4	Engr. A. O. Lawal
5	Dr A. Anamomeh	5	Dr. A. O. Iyiola-Tunji
6	Dr. H. U. Onimisi	6	Dr. S. A. Makama
7	Dr. Engr. T. O. Olanrewaju	7	Dr. F. O. Issa
8	Dr G. Onagwa	8	Dr. A. Anamomeh
9	Dr Kemi Ojo	9	Dr. G. Onagwa
10	Dr Buba Wahe	10	Dahiru Baba
11	Dr Jamila Rabe	11	Mrs Esther Ladan
12	Engr. Aminu Fagge		
13	Engr. A. A. Wahab		
14	Dahiru Baba		
15	Mrs Esther Ladan		
16	Aisha Lawal Ibrahim		
17	Abdulwahab Balarabe		
18	Nasir Suleiman		
19	Ibrahim Ayuba		
20	Aisha Aliyu Muhammad		
21	Sada A. Muhammad		
22	Muhammad Kabir Aliyu		