

**AN APPRAISAL OF AGRICULTURAL  
DATABASE MANAGEMENT IN NIGERIA  
(PROBLEMS AND PROSPECT)**

**BY**

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## **DEDICATION**

This project is dedicated to Late Alhaji M. Alkali of the Federal Ministry of Agriculture and also to many Nigerians who are food in secured.

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## **ABSTRACT**

For quite a long time now, the mainstay of the economy of Nigeria has been identified with agriculture. Today the trend has changed due to neglect and shift to petroleum resources. Another major factor that could be adduced to this problem is the lack of reliable up-to-date data for monitoring the activities in the sector of agriculture. It is very ridiculous to note that most of the agricultural policy formulations in the country are based on guesstimates. It is on this basis that country could not compete with other nations. To assume her position in the world economy, the country must be able to feed her population. The present position of Nigeria in terms of production of stable food items is very daisy and unless necessary steps are taken, the position may still be doubt for years to come. The result of the project revealed that the national agricultural database in the country is very weak and not much attention has been given to it. Network, both local and wide was considered an option for timely dissemination of produced result.

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## **CHAPTER ONE:**

### **GENERAL INTRODUCTION**

#### **1.0 Introduction**

Agriculture was traditionally the mainstay of the Nigerian economy. It provided employment and contributed to foreign exchange earnings for the country. It helped feed the growing population and was a source of raw materials for the industrial sector.

After a shift in emphasis towards oil as the main source of foreign exchange for the country in the early seventies, the Government of Nigeria investigated ways of re-establishing agriculture as a means of livelihood and as an alternative for earning foreign exchange.

The Government of Nigeria also gave high priority to the development of agriculture in its structural adjustment programme and initiated several worth while policies such as 'Operation Feed Nigeria' 'Back to Farm Exercise' and 'Green Revolution'. A number of agriculture development programmes were implemented in all states of the country with the overall objective of improving agricultural production. In general, these programmes were not very successful, owing to poor sustainability, constantly changing government and policies. It has also been observed that another major reason is the lack of adequate data to develop a plan for increasing agricultural production. The significance of agriculture in our national economy and its contribution to our social and economic development as a nation needs no emphasis. Over 70% of our people are said to be engaged in agricultural enterprises in the rural areas and a significant percentage are engaged in agro-based industries in both rural and urban centres.

For Nigeria to assume significant role as a potential world economic and political power, the issue of self sufficiency in food production and other economic parameters must receive proper attention. It is therefore imperative that sound policy formulation and

management in Nigeria. It also presented the agreement between the Federal Government of Nigeria and International Donor Agencies (UNDP/FAO etc). The document revealed the extent of agro-data availability and the lapses identified which assisted me greatly in fashioning out the recommendations that will enable necessary steps be taken in generating reliable data for the sector of agriculture.

The long-term aim of the agricultural data bank project was the establishment of a data base of agricultural statistics and to organise a computerised data bank to make comprehensive, reliable and timely data required for policy formulation and development planning available to the PRSD of the FMA. The entire available data on agriculture in Nigeria is as presented in Appendix A.

## 1.2 Objectives of the study

The broad objectives of this study is to examine agricultural data management procedure and from there develop a rational basis with which the wide variations observed in agricultural output figures (emanating from different sources) in Nigeria can be explained. Specifically the study will examine the following;

- a) determine what agro-statistics data are available and where they can be obtained since users do not get all of the data which they want and some of the collected data do not find users.
- b) ascertain the uses to which the records are put.
- c) identify the existing channels for the dissemination and utilisation of agro-data in the country
- d) document the problems associated with record-keeping and the documentation of agro-statistics in the country
- e) make appropriate recommendations to enhance agro-data collection, storage, dissemination and utilisation in the country.

### 1.3 Rationale of the Study

Many government agencies were involved in gathering the data on agriculture. Such Agencies included the Federal Office of Statistics (FOS), the Central Bank of Nigeria (CBN), Federal Ministry of Agriculture, Agricultural Development Projects (ADPs), States Ministries of Agriculture, Food and Agricultural Organisation of the United Nations (FAO), United States Department of Agriculture (USAID) etc. Unfortunately, the results were often incomplete, and data from different sources conflicted. The need to coordinate these conflicting records then became a concern to the government of Nigeria, which was considered through the coordination of the work of the different data generating agencies under a single agricultural statistics system and, subsequently, undertook a reorganisation of the sector. Sub-sectors, including crops, livestock, forestry, fisheries, land and water resources, cooperatives and agro meteorology, were identified and a ministerial coordinating committee was established. This committee called National Agricultural Coordinating Committee (NASCCO) was essentially to monitor the statistics generated and to increase user access to reliable information. It serves as advisory on agricultural information management. The Secretariat is in the Federal Ministry of Agriculture. To accomplish the stated objectives above, the study is set out among other things to;

- a) examine available agro-data and their location
- b) address the underlying problem of data inconsistencies and identify possible causes of the wide variations in data from alternative sources.
- c) establish appropriate basis for generating credible output data
- d) offer suggestions for improving the quality of data collected in the agricultural sector.

### 1.4 Data Collection Methodology

It is important to realise that the data under reference has two main components. The primary as well as secondary data. While primary data are collected through questionnaires administered during census or surveys, secondary data are more of

administrative records. The Federal Office of Statistics has been responsible for agricultural censuses. The last event was jointly carried out with the Federal Ministry of Agriculture and Rural Development. There are other periodic surveys sub-sectorially. The Ministry established a technical committee that prepares a standard format of questionnaire. Once this instrument is acceptable to all data collection agents, the format is produced en mass and administered accordingly. There are different format for each sub-sector; crops, livestock, fisheries, land resources, forestry etc.

The completed questionnaire are retrieved through the States offices of the agricultural Data Bank project. The offices in the zones make a partial analysis of the states under each zone before forwarding to the Headquarters in Abuja for the national figures.

## CHAPTER TWO

### LITERATURE REVIEW

#### 2.0 Introduction

Agricultural statistics refer to information presented quantitatively, i.e. in figures, on various aspects of agriculture with reference to a country or region. Agricultural statistics have a wide coverage and their scope is ever widening. Detailed statistics are needed for agricultural policy decisions, planning agricultural development and for estimates of national income. The importance of agricultural data is not restricted to a nation or region, it is a world-wide affair. In fact the world agricultural census aimed at obtaining needed parameters world wide had led to decennial World Census of Agriculture sponsored by the Food and Agriculture Organisation of the United Nations. The first type was initiated in 1924 (P.C. Bansil, 1983).

The issue of credible agricultural database in Nigeria has received attention in literature, even though not widely enough. It has been discussed by professionals in the field of agriculture and at decision making levels. The first attempt to examine the nature and variety of agro-statistics in Nigeria was by an FAO Mission (Lele, 1972). The report stressed the importance of agro-statistics data for planning purposes and recommended nine specific areas where records should be kept to enhance effective planning in agriculture and rural development. The areas included data on crops, land use, land husbandry, cost structures, marketing, infrastructure, fisheries and forestry.

More recently, a number of other researchers have called for the establishment of an agricultural information system in Nigeria. Opio-Odongo and Raza (1981) emphasised the importance of adequate information for effective decision-making in the agricultural sector. The first ever National Conference on Agro-Statistics and Data Banks in Nigeria was organised by the Federal Ministry of Agriculture held in Kaduna in May, 1982. The Conference recommended the establishment of a National Agro-Statistics Data Bank which should be a repository of data on all aspects of Nigerian agriculture. Professor Saka Nuru,

in his contribution to Record Keeping and Agro-Data Bank in Nigeria, emphasised the significance of agriculture to the national economy and its contribution to the social and economic development. According to him, more than 70% of Nigerians are bases on agricultural enterprises in the rural areas while a significant percentage were also engaged in agro-based industries in both rural and urban centres. However, record-keeping, analysis, storage and effective utilisation has eluded this nation for several decades which has been identified as a major constraint in our national development effort.

The benefits of agricultural statistics and data are not only to the farmers/producers but also to the planners at state and federal government levels, and to agro-based industries, researchers and extension workers. Good farm records are sources for an accurate and reliable data bank when they are maintained on a continuous basis and these could be used as a base for future planning and predictions. It was also observed that even though some diseases in livestock were recorded comprehensively, they were not always made available for public use (Schillhorn van Veen, 1978). According to Nwabuchi (S.E. Nwabuchi 1986), well kept records play the following important roles in an enterprise;

- a) providing a systematic and complete picture of enterprise structure and activities;
- b) making it easy to locate needed facts and figures and finding answers to questions about the performance, policies, procedures and status of the enterprise;
- c) helping to measure progress towards the realisation of objectives;
- d) recording trends in the development of an enterprise by showing performance for successive periods;
- e) adding some certainty to forecasts, which depend in part, on past activities;
- f) providing the background for planning since a realistic estimate of future activities and potential depends, to a large extent, on records

that show past and present strengths and weaknesses in the management of operations, resources and manpower.

## 2.1 Agricultural Statistics/Agricultural Data Bank

The ADB was established in the Research and Statistics Branch of the PRSD of the FMA&RD in the new Federal Capital, Abuja. Provision for data storage and analysis was made. In addition to the standard computer tables, other items included a public address system, blackboards and whiteboards, and overhead projectors for in-house training. The PRSD staff were gradually transferred from Lagos to Abuja and new staff were recruited to sustain the expanded activities arising from the project as well as to carry out the ongoing activities of the PRSD. Staff included statisticians and agricultural planners, computer scientists and programmers, system analysts, data processing officers, word processing officers and support staff ". PRSD was divided into three branches: Research, Statistics and Agricultural Data Bank and Computer Centre. The computer services section was, in its turn, sub-divided into three further sub-sections: data processing, word processing and the ADB.

A lot has been said about the plan for effective record in agriculture, it is important to appraise the achievement as outlined. This is crucial especially now that the present administration is so much concerned about food security for the nation. The Agricultural Data Bank is therefore;

- a) to identify what is known and what needs to be known about agricultural data banking in Nigeria;
- b) to draw attention to what agro-statistics data are available and where they can be obtained;
- c) to create awareness of the importance of systematic data collection, storage, dissemination and utilisation in the agricultural sector;
- d) to examine the efforts being made by various institutions towards the

- establishment of agro-statistics data banks in Nigeria; and of course
- e) to make appropriate recommendations that will enhance cooperation among various institutions in the agricultural sector in the collection and use of data.

### **2.2.1 Data Processing Procedure**

A standard procedure has been put in place for processing data. This outfit is domiciled within the PRS Department of the Federal Ministry of Agriculture and Rural Development. There are four main designated sections equipped with computers and application software for analysis. A Technical Committee (TCADM) prepares the standard questionnaire that will be distributed to the states through the four Zonal Offices of the Agric. Data Bank Project. The questionnaires are distributed to the Head of the Zonal Offices. A sub-section undertook activities related to data entry, editing and analysis of data collection for the ADB. There is also a sub-section of word processing which handles all activities related to document preparation, including report writing, documentation of seminars, and special reports from the Minister's and Director General's offices. Other reports prepared include the presentations and summary of the National Conference on Agriculture.

### **2.2.2 Data Processing Equipment**

The equipment can be grouped into two main categories; human and material. In the area of human, a lot of training has taken place to train Statisticians, Demographers, Computer Scientists including Analysts and Data Processing Officers. These are in place both at the Headquarters and the Zonal Offices.

There are committees at the various levels; national and states that handle the coordination of the collected data. The national committee was called the National Agro-Statistics coordinating committee (NASCCO). It served as the clearing house for all data on national agricultural statistics before they were released to the public. It was set up to correct the



previous situation where different agencies independently released data on the same crop. In each state, a corresponding committee, called the state Agro-Statistics Coordinating Committee (SASCCO), was set up to coordinate the generation and management of data at a state level.

The functions of NASCCO were: to examine and update the needs for data on the agricultural sector for development planning in Nigeria; to create awareness of the ADB in all producers and users of agricultural statistics at federal and state government levels as well as in the general public; and to serve as an advisory body on the technical, organizational and training aspects of agricultural data production. Representatives of NASCCO met to discuss various national issues concerning agricultural statistics. The following agencies were represented: PRSD of the FMA, the National Data Bank (NDB), FOS, CBN, agricultural colleges, the Agro-Meteorological Services Department, the National Planning Commission and Agricultural Research System.

In order to enhance the activities of the committee, a sub-committee called the Technical Committee on Agricultural Data Management (TCADM) was created to review regularly the data needs and to update the requirements when necessary. The NDB played an important role in NASCCO by coordinating the activities of all the sectoral data banks in Nigeria. The NDB guarantee the compatibility of system among sectoral data banks and ensured that the format of the stored data agreed with international standard. The NDB also monitored the software being used in each sector to maintain the portability of the data and program FOS, the main data-gathering body in Nigeria, had the primary role of advising the committee on technical aspects such as the design of questionnaires, surveys, development of sampling frames, and the estimation of agricultural production. The CBN had the responsibility of providing advisory services concerning financial information on trade. One of the first accomplishments of NASCCO was to specify the sectors to be covered in the ADB. These sectors were: Crops, Livestock, Forestry, Fisheries, Agro-

two data banks.

### 2.3.1 Periodic Reporting System

To improve the timeliness of the data in the ADB, the PRSD established zonal offices to assist in the assembly and review of the state-level agricultural statistics forwarded to the PRSD in Abuja. These secondary data came from many sources and were collected by staff from the zonal offices. The zonal officers were linked with the heads of the State Field Project Monitoring Units of the FMA. In each state, SASCCO coordinated the generation and management of data. Its members were drawn from state institutions involved in data management. The committee served as a clearing house for agricultural statistics at state level and was required to approve the data before the information could be published or sent to PRSD for loading into the bank and for aggregation at national level.

The functions of SASCCO were to be responsible at the state level, for agricultural data collection activities among various agencies to avoid duplication of efforts; to assemble all available secondary agricultural data in the state; to coordinate the activities relating to agricultural data collection in each state; to identify formats for data collection as directed by NASCCO; to implement the design formats for data collection in compliance with NASCCO directive; and to train staff in agricultural statistics methodologies.

Each SASCCO included representatives from the following bodies and agencies: FMA; Ministry of Economic Planning; FOS; CBN; Agricultural research institutes; river basin development authorities; agricultural development projects: state offices of Agricultural Project Monitoring and Evaluation Units; National Livestock Production Departments; state office of the Federal Agricultural Coordinating Unit and the Livestock Monitoring and Evaluation Unit; universities and agricultural colleges.

and partial analysis. The data were subsequently transferred to Abuja for entry into the ADB and to Lagos for entry, together with national statistics, in the NDB. Data entry of the collected records was organized by sector with specific assigned to each sector. FMA also began to compile the backlog of information located in various state throughout the country. Most of the data on crop production from 1980 from to 1994 was entered into the ADB.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.1 National Agricultural Census**

One other important source of agricultural data and information is through surveys and censuses. FOS was the official agency responsible for collection, collation, compilation and dissemination of general statistical information in Nigeria. The need for stake holders interest in the variables of data collection led to the recent development where responsible Ministry now joins hands with FOS to generate data that are relevant to their day to day affairs. Agricultural sample censuses were held in 1974-75 and in 1984-85 and annual rural agricultural sample surveys were also conducted. The results of these censuses were subject to criticism because processing was manual and only about 10% of the questionnaires was actually processed. Inadequate processing facilities coupled with a lack of expertise in computer data processing contributed to this situation. The NAC was the first nationwide exercise, providing the foundation for the ADB. Furthermore, it gave staff the opportunity to acquire data processing know-how using modern technology. As a result of the NAC, the country was partitioned into enumeration areas that would serve as primary sampling units for future sample censuses. The data from the NAC provided comprehensive, timely and current agricultural household data for inclusion in the ADB and allowed the Federal Government and policy makers to act on the basis of reliable statistics. Moreover, improved statistical and data processing capabilities were developed and modern computer hardware was acquired. Finally, an up-to date sampling was created for future agricultural surveys.

#### **3.2 Organizational Arrangements**

To oversee NAC activities, a committee called the Survey Advisory Committee (SAC) was set up by FOS. This committee included representative from FOS, FA, CBN, the

Federal Ministry Science and Technology (FMST), state ministries of agriculture and FAO. During the planning stages, meeting of relevant agencies were held to design questionnaires, review sampling designs, sampling frames and selections of samples, conduct preliminary tests, recruit and train enumerators, and review data processing and report writing.

The FMA set up a National Agricultural Development Planning Committee (NADPC) with the director of PRSD as its chairman. Chief planning officers of FMA, representatives of FOS and CBN were the other members. From this group, a sub-committee was set up to identify the requirements for agricultural planning and to incorporate requirements into the scope of the NAC. The data collection and processing for NAC was contracted out to FOS by FMA.

### **3.3 Sampling frame**

The census sampling frame was obtained from the master sample prepared by FOS for the National Integrated Household Survey (NISH) programme. An international expert in sampling assisted FOS in the selection of about 5 EAs from the NISH master sample. From this sample, a sub-sample of households was selected.

### **3.4 Survey design and implementation**

The NAC was designed so that FOS could enumerate about 50,000 housing units estimated to have average size of four persons per household. FOS randomly selected sample clusters distributed throughout Nigeria and covering both traditional peasant farming households and modern agricultural holdings. Sampling occurred at the rate of 10 EAs per local government area, with 10 households selected in each EA. To reduce the bias, self-weighting within the semi-urban and the rural strata was introduced.

### **3.5 Questionnaire design and pre-testing**

The questionnaires for the NAC were adapted from existing questionnaires used in rural agricultural sample surveys and in surveys of modern agricultural holdings. The questionnaires were pre-tested in semi-urban and rural household to provide experience in the planning and execution of the census field work, and to assess the adequacy of the documents and procedures. The survey reference period was one year and data were collected for all agricultural operations relating to all the crops grown in the country. In addition, data providing demographic information were gathered, together with data regarding socio-economic factors such as health, housing and educational status.

Pre-testing was undertaken in four states. This involved: training trainers at FOS headquarters, training interviewers in FOS state offices and collection of the data. The data collection took place in three stages and was organized to ensure coverage of the entire crop season. The testing involved 40 housing units in the first stage, 20 housing units in the second stage and four housing units in the stage. The results of this pre-test were used to modify the documentation and the procedures to be used in the main survey.

### **3.6 Implementation of the Census**

The preparatory work on NAC was undertaken between April 1992 and August 1993. The census enumeration commenced in September 1993 and was completed in 1994. About 5000 enumerators were involved in data- collection activities for stage one. Each enumerator resided in the sampling units to which he had been assigned and was required to cover the area for the stage one interview. All selected farmers in each sampled EA were interviewed to collect basic information. In stage two operation, only half of the enumerators from stage one were used. This stage involved the objective measurement of farm plots and collection of information on farming activities. Parameters to be measured included size of farm, types of crops grown on the fields, crop yields, wastage, etc. In

stage three, which studied drying and milling factors data was collected by only about 500 of the enumerators.

### **3.7 Data Processing**

Batches of completed questionnaires were sent to each FOS state scrutiny section at the end of every month. These sections performed the preliminary editing of field questionnaires. After completion of the editing, the questionnaires were bundled into batches. Records of the completed questionnaires were retained for each sampling area.

Computerized data processing was handled solely by FOS in Lagos. The entry, editing and collection took place by means of microcomputers. After data were entered, they were edited and verified to make sure that errors were limited. The data entry procedure for each questionnaire was undertaken separately.

### **3.8 Program development**

To enhance the processing of NAC data, an international expert in data processing was employed. All programs were developed by the consultant using the 5.2 database. The data entry programs were developed by FOS programmers while the formulae to expand the data were supplied by FOS. Individual programs were developed for the activities of general household listing, data merging, data update, data tabulation.

The processing of NAC data comprised two phases. In the first phase, national-level results were tabulated; in the second phase, state-level tables were prepared. The national tables reflected structural data on agriculture in Nigeria and illustrated those aspects of the sector that do not change frequently (for example, information on temporary and permanent crop production, livestock rearing, poultry and fishing). During the second phase; tables were prepared with production data at state levels. This phase had three components: listing of household and crops grown, a general household survey and a

holding questionnaire. The household-listing questionnaire comprised 44 data items for approximately 25 000 EAs; the general household survey questionnaire contained 17 data items in 255 000 questionnaires, while the holding questionnaire included 101 data items for the same number of questionnaires.

### **3.9 Household-listing questionnaire**

Processing of NAC data commenced in June 1993. By December 1994, data entry, merging and editing for the household-listing questionnaire were completed.

The following tables were generated for each state:

1. Number and percentage of households cultivating temporary crops.
2. Number and percentage of households cultivating permanent crops.
3. Number and percentage with livestock, poultry and/or fish.
4. Number of housing units, households and holders.

#### **3.9.1 Holding questionnaire**

By December 1994, manual editing and coding were completed for about 75 percent of the states. Merging, general data cleaning, editing and processing were still under at the time of writing this report. Some state tables, of the 15 different tables that had been planned, were generated.

#### **3.9.2 Modern holdings of agriculture**

The estimated number of modern holding in Nigeria is about 5 700. Of these holdings, about 2 800 employ less than 10 workers and about 2 900 employ more than 10 workers. Although it was expected that the edited data would be ready in February 1995, this activity was completed until August 1995.



### **3.10 Logistical problems**

The progress of NAC was hindered by logistical problems such as frequent load-shedding by the National Electric Power Authority (NEPA), the non-availability of diesel to run the generator and political unrest in the country. The computing facilities at FOS were also affected and considerable effort was to ensure that the process ran smoothly.

### **3.11 Human Resources Development**

During the project, many staff members attended training courses both in Nigeria and abroad. Four officers were enrolled in fellowship training outside Nigeria; project experts conducted courses in Abuja and organized training programmes at colleges and training institutes in Nigeria. The training contributed to capacity building, which was one of the major objectives of the project. Study tours were arranged to give FMA staff an opportunity to see how other countries collected, processed stored and disseminated agricultural data. During the project, several workshops and seminars were organized to identify the data requirements for each of the sectors. In 1992, a workshop called the National Conference on Agriculture and Information Management System was held. In this workshop participants assessed the achievements in agricultural data management throughout the country and prepared an institutional framework for agricultural data collection, collation, processing and dissemination of information for use in the development strategy of the National Planning Commission.

Another outcome of the workshop was the identification of data needs as seen by producers and users of various kind of agricultural statistics. As a result, a new awareness of the need to support a functional statistical system for the country was created. This recognition enhanced data-flow and increased the accessibility of relevant information.

## CHAPTER FOUR

### TECHNIQUES OF DATA ANALYSIS

#### 4.0 Introduction

The project borrowed the program used for the analysis of agricultural data, prepared by the Technical Committee. A customised application package, using Dbase software was applied. The percentage ratios of the figures analysed by the various agents in their data management system was adopted.

#### 4.1 Statistical Tools for Agric. Data Analysis

The importance of reliable and up-to-date agricultural statistics cannot be over-emphasised. The benefits are not only to the farmers/producers, but also to the planners at state and federal levels and to researchers and extension workers. All those involved in agricultural production - the largest employer of labour in Nigeria - need reliable records. To a farmer his profits may depend on how well he keeps records. Researchers and extension workers need records to assess the impact of their findings in technology and its adoption by farmer. On the part of policy makers and planners, formulation of sound policies are impossible in the absence of reliable and accurate data on which to base predictions and future plans.

Despite indications to the contrary, considerable quantities of data are available in Nigeria, but some of the data do not find users and users do not always find the data they need. Some of the data are processed while a substantial quantity of unprocessed data also exists. Various attempts have been made to develop a credible data-base for effective planning in the agricultural sector, but to date it is very difficult to come by very reliable and logically consistent agricultural statistics. In situations where data are collected and the user is skeptical about its reliability, there are no coordinated and pooled baseline data which can be used to verify the validity of such newly collected information. Unfortunately,

numerous efforts at developing a credible data base for effective planning in agricultural sector have yielded widely differing estimates in terms of volume and even trends, thus making it difficult to come by reliable and logically consistent agricultural statistics. Analysis of data from the two common sources of agricultural statistics in Nigeria (Federal Office of Statistics and Federal Ministry of Agriculture'APMEU') present wide variations in the output figures obtained from these various sources. The extent of the variation is illustrated below with the table of output figures of some of the selected staple food items in 1990.

Table 1      Agricultural Production Statistics of Some Staple Foods In Nigeria in 1990.  
Crop          Production    Figures (1000 Metric Tons)

	FAO	APMEU	Difference
Cassava	17000	15604	1396
Cowpea	1500	1327	173
Cotton	190	286	96
G/Nut	680	929	312
Maize	1700	1796	96
Millet	3800	1575	2225
Sorghum	5000	2577	2423
Rice	1450	1693	243
Soybean	78.3	96	17.7
Yam	15000	10992	4008

Source: Compiled from FMA&RD Time Series Publications

#### 4.2 Discussion of results

From the table it can be seen that production data obtained from FAO and FMA&RD (APMEU) differ by more than 4 million tonnes for yam and more than 2 million tonnes for millet and sorghum.

Table 2 ANNUAL CROP PRODUCTION FAO, FOS DATA FOR PRODUCTION. 1985-1987 AS REPORTED IN A STUDY BY PRSD/FMA&RD.

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CROP	YEAR	PRODUCTION ('000 METRIC TONS)	
		FAO	FOS
Cassava	1985	13500	5148
	1986	14700	5510
	1987	14000	3155
Cowpea	1985	N.A.	439
	1986	N.A.	642
	1987	745	1281
Cotton	1985	50	46
	1986	40	30
	1987	110	80
G/Nut	1985	600	546
	1986	700	532
	1987	740	692
Maize	1985	1196	983
	1986	1300	1221
	1987	1300	1730
Millet	1985	3600	2115

	1986	4100	3583
	1987	3350	3952
Rice	1985	1430	380
	1986	1416	266
	1987	1400	634
Soybean	1985	60	N.A
	1986	68	N.A
	1987	70	N.A
Yam	1985	21200	7180
	1986	19200	7501
	1987	19000	7733
Cocoyam	1985	1900	232
	1986	2050	373
	1987	2100	631

---

Source: Federal Ministry of Agriculture, Survey Report, 1992.

Table 2 further shows the trend in output of some staple foods in Nigeria from 1985 to 1987 as reported by FAO and FOS. There are inconsistencies in the series of data shown in Table 2. For instance, between 1985 and 1986 production of cotton decreased by about 20% from 50,000 to 40,000 metric tonnes using FAO figures. The production increased in 1987 by about 175% to 110,000 metric tonnes. On the other hand, FOS data show a decline of about 28% from 46,000 to 30,000 between 1985 and 1986 then increased by about 166.67% from 30,000 to 80,000 in 1987.

Similarly, there are inconsistencies in the series on Maize. The FAO reported an increase from 1,196,000 metric tonnes to 1,300,000 tonnes (8.7%) between 1985 and 1986 while

the output remained unchanged in 1987. During this period, FOS reported a 24.2% increase from 983,000 metric tonnes to 1,221,000 tonnes and a further 42% increase to 1,730,000 metric tonnes in 1987. The wide variations and inconsistencies in the output figures can be attributed to differences in methodology of data collection and difficulties associated with estimating output. The production figures produced by FOS are collected annually by the Rural Agricultural sample survey (RASS) which is part of the National Integrated Survey of Households (NISH). APMEU output figures are obtained by aggregating agricultural statistics from various sources, mainly the Agricultural Development Projects (ADPs) and States Ministries of Agriculture. The Central Bank series are adjusted from the FOS data. The FAO, USDA series are collected using demand oriented analytical procedure. While the FOS figure is expected to be the most accurate, the accuracy has however been put to question not only because the more commercial and dynamic components of the agricultural sector are not included in the RASS but also because the reliability of the RASS itself is questionable. Hence FOS data tend to under-estimate the true level of production. The existence of underestimation is supported by survey data from FMA&RD (APMEU). Nevertheless, APMEU data do not explicitly address the issue of wide variation in output figures, hence it is difficult to make conclusive judgements about credibility of the data and more importantly conduct meaningful analysis and planning with the data base. The adjustments made by CBN from FOS data are very subjective and CBN has no means of doing objective data collection. The FAO and USDA series are based on a demand oriented analytical procedure. However the method creates a series that fails to capture realistic levels of production instability.

Another likely source of inconsistencies and wide variations in the data collected is double counting of actual areas under cultivation. Besides inconsistencies in the data, one is tempted to think that some of the values obtained by FAO, for instance, are suspect. For

instance, a reference to the output figures for cocoyam and sugarcane, would show that the areas and the outputs are the same for 1988, 1989 and 1990 respectively. Similar results are obtained for rice paddy and sweet potatoes with the areas and outputs the same for 1987, 1988, and 1989. It is uncomfortable to assume that the area and output figures for these years did not experience any changes at all. Agricultural data generation in Nigeria has been an 'all comers job'. In most cases, the different agencies involved in agricultural data generation operating independently of one another and hence producing different statistics on the same variables.

The national data base in general and agriculture in particular is weak and unreliable thus resulting in lack of meaningful and sustainable agricultural planning. The agricultural sector is worse off because of lack of a record-keeping tradition by most farmers. There is need to gear efforts towards establishing a viable and up-to-date agricultural data base in the country. The need for effective harmonisation of the figures by all producing agencies is a must for the figures to command respect both internally and internationally.

## **CHAPTER FIVE**

### **CONCLUSION**

#### **5.0 Introduction**

The project has examined the sector of agriculture and the attendant problems. Agriculture, which hitherto was the mainstay of Nigeria economy has been relegated to the background. Unless this important sector of the economy is revisited, the country may not be able to take her rightful position in the world nations.

#### **5.1 Problems of Agricultural data in Nigeria**

Many problems have been identified with agricultural data management. The problem cuts across data collection whether primary or secondary. Apart from FOS that appears to be involved in scientific method in their approach, majority of other agencies adopt method that produces what is required at a particular time and for the purpose they are needed. Lack of adequate funding has also contributed significantly to the poor state of agricultural data in Nigeria. The problem with data analysis stemmed from lack of recognition for the need to train staff for effective and efficient method of data analysis. The problems highlighted above have therefore led to another major problem of agricultural data in Nigeria which is that of inconsistency. The reason has been adduced to the proliferation of producers with divergent aims for the data collection.

In the area of management, it is important to point out that data harmonisation process has to be addressed. This is to ensure that people within and outside respect data collected. It is equally important to note that modern equipment are necessary for easy dissemination of data to users world-wide.

#### **5.2 Recommendations**

From the report above, it is recommended that the Federal Government of Nigeria should



come up with a standing policy on agricultural data management. In this respect, cognisance should be taken of the present mode of data collection that is poorly funded. It should be noted and be made aware that data management is very expensive but no amount invested in data management will be too much.

Data harmonisation is also recommended because of the spread of agencies responsible for data generation. The apex agency, FOS should be encouraged to work hand in hand with other sectors of the economy.

It is also recommended that the present mode of information dissemination need more attention. There is need for modern facility like Internet, E-mail and if possible, create Website for the sector of agriculture for every body who is interested in any aspect of agriculture to have access to necessary information.

It is also recommended that action be taken to improve data-flow from states to zones and from zones to headquarters; more user-applications for the ADB be developed; PRSD staff be trained in statistical analysis; programmes for more efficient data collection be developed; standby generators be procured for zonal offices; specifications for communication links within the ADB and among FOS zonal and state offices be developed; LAN components be procured and LAN facilities be installed; and, finally, that periodic workshops for state and zonal officers on the use of data for effective planning be conducted.

#### **5.4 Conclusion**

The project assisted PRSD to design, develop and load a computerized national ADB. Assistance was provided to plan, conduct and process the NAC, which provides comprehensive, reliable and timely agricultural data to decision-makers in the agricultural sector. The project also assisted FMA to strengthen the reporting and flow of data between states and ADB. Through the ADB, FMA and FOS put in place improved

organizational infrastructures and established institutional arrangements and at all administrative levels. Zonal offices were created by FMA to coordinate the activities of state offices. In addition, computer hardware were procured for units involved in data processing and analysis.

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**Appendix A:**

**CROP SUB-SECTOR:**

The figures below present the various crop items as stored in the National Agricultural Data Bank Headquarters in Abuja. The Bank storage contains production figures, land utilisation figures and yield of each crop. The figures below present the period of such data on national (Nigeria) and state basis.

**Acha:**

<u>National/State</u>	<u>Period</u>
Nigeria (National)	1975 - 2000
Niger State	1981 - 2000
Bauchi ,,	3232321987 - 2000

**Maize:**

Nigeria (National)	1975 - 2000
Abia State	1992 - 2000
Adamawa	1992,93, 1995 - 2000
Akwa Ibom	1988 - 1996, 2000
Anambra	1986 - 1989, 1991-2000
Bauchi	1986 - 1988, 1990,1995-2000
Bayelsa	1998-2000
Benue	1986 - 1991, 1995-2000
Borno	1988, 1993 -2000
Cross River	1986 - 1987, 1991 - 2000
Delta	1992, 93, 1995 - 2000
Ebonyi	1998-200
Edo	1992, 93, 1995 - 2000
Ekiti	1996 - 2000
Enugu	1991 - 2000
FCT	1992, 93, 1995 - 2000
Gombe	1998-2000
Gongola	1987 - 1990
Imo	1986 - 1988, 1990, 1992 -1998
Jigawa	1995 - 1998
Kaduna	1986, 1988 - 1998
Kano	1986 - 1988, 1995-1998
Katsina	1988 - 1998
Kebbi	1995 - 1998
kogi	1995 - 1998
Kwara	1986 - 1989, 1995-1998
Lagos	1995 - 1998
Nasarawa	1996 - 1998
Niger	1986 - 1998
Ogun	1987 - 1990, 1995-1998
Ondo	1986 - 1988, 1995-1998
Osun	1995 - 1998
Oyo	1986 - 1989, 1995-1998
Plateau	1986 - 1989, 1995-1998
Rivers	1987 - 1989, 1995-1998
Sokoto	1986 - 1989, 1995-1998

Taraba	1995 - 1998
Yobe	1993 - 1998
Zamfara	1996 - 1998

**Millet:**

	<i>Period</i>
Nigeria (National)	
Millet	1975 - 1998
States:	
Adamawa	1995 - 1998
Bauchi	1982 - 1990, 1995-1998
Benue	1986 - 1990, 1995-1998
Borno	1988, 1993-1998
Ekiti	1998
FCT	1995 - 1998
Gombe	1998
Gongola	1988 - 1990
Jigawa	1995 - 1998
Kaduna	1985 - 1998
Kano	1982 - 1986, 1988, 1995-1998
Katsina	1988 - 1998
Kebbi	1995 - 1998
kogi	1995 - 1998
Kwara	1985 - 1998
Nasarawa	1996 - 1998
Niger	1981 - 1998
Oyo	1998
Plateau	1986 - 1998
Sokoto	1982 - 1985, 1987, 1989-1990, 1995-1998
Taraba	1995 - 1998
Yobe	1993 - 1998
Zamfara	1996 - 1998

**Rice**

Nigeria (National)	1975 - 1980, 1993-1997
States:	
Abia State	1994 - 1998
Adamawa	1995 - 1998
Akwa Ibom	1988 - 1990, 1998
Anambra	1986 - 1998
Bauchi	1986 - 1990, 1995-1998
Bayelsa	1998
Benue	1986, 1988-1989, 1995-1998
Borno	1988, 1993-1998
Cross River	1991 - 1995, 1997
Delta	1998
Ebonyi	1998
Edo	1995, 1997-1998
Ekiti	1996 - 1998
Enugu	1991 - 1998
FCT	1995 - 1998

Gombe	1998
Gongola	1987 - 1990
Imo	1986, 1988- 1989, 1994-1995, 1997-1998
Jigawa	1995 - 1998
Kaduna	1988 - 1998
Kano	1995 - 1998
Katsina	1988 - 1993, 1995-1998
Kebbi	1995 - 1998
Kogi	1995 - 1998
Kwara	1995 - 1998
Lagos	1995 - 1998
Nasarawa	1996 - 1998
Niger	1986 - 1990, 1995-1998
Ogun	1988 - 1990, 1995-1998
Ondo	1987 - 1998
Osun	1995 - 1998
Oyo	1986 - 1995, 1997-1998
Plateau	1986 - 1990, 1995-1998
Rivers	1988 - 1990, 1995-1998
Sokoto	1986 - 1990, 1995-1998
Taraba	1995 - 1998
Yobe	1993 - 1998
Zamfara	1996 - 1998

**Sorghum**

**Nigeria (National)**

**States**

Bauchi	1982 - 1990, 1998
Benue	1981 - 1998
Borno	1993 - 1998
Gongola	1987 - 1989
Kaduna	1985 - 1998
Kano	1982 - 1988, 1998
Katsina	1988 - 1995, 1998
Kwara	1981, 1984, 1986-1987, 1998
Niger	1981, 1990-1998
Ondo	1983 - 1988, 1998
Oyo	1984 - 1990, 1998
Plateau	1986 - 1990, 1998
Sokoto	1981 - 1990, 1998
Yobe	1993 - 1995, 1998

**Cassava:**

**Nigeria (National)**

**States**

Abia State	1992 - 1996, 1998
Adamawa	1991 - 1993, 1995-1996, 1998
Akwa Ibom	1989 - 1996, 1998
Anambra	1986 - 1989, 1991-1996, 1998
Bauchi	1985 - 1995-1990, 1992-1993, 1996, 1998
Benue	1981 - 1993, 1995-1996, 1998
Cross River	1986 - 1987, 1991-1996, 1998

**Period**

1975 - 1998

Delta	1992-1992-1993,1995-1996,1998
Edo	1991 - 1993,1995-1996,1998
Ekiti	1996, 1998
Enugu	1991 - 1996,1998
FCT	1991 - 1992,1995-1996,1998
Gongola	1987 - 1990
Imo	1985 - 1996,1998
Jigawa	1993
Kaduna	1985, 1990-1993,1995- 1996,1998
Kano	1993
Katsina	1992 - 1993,1998
Kebbi	1993
kogi	1992,1995-1996,1998
Kwara	1982 - 1984,1991-1992,1995-1996,1998
Lagos	1991 - 1992,1995-1996,1998
Nasarawa	1996, 1998
Niger	1981 - 1992,1995-1996,1998
Ogun	1987 - 1989,1991-1992,1995-1996,1998
Ondo	1984 - 1989,1991-1992,1995-1996,1998
Osun	1991 - 1992,1995-1996,1998
Oyo	1984 - 1992,1995-1996,1998
Plateau	1986 - 1992,1995-1996,1998
Rivers	1987 - 1992,1995-1996,1998
Taraba	1992, 1995-1996,1998
Yobe	1992, 1995,1998

**Cocoyam:**

Nigeria (National)	1975 - 1981,1983-1997
<b>States:</b>	
Abia State	1992 - 1995,1998
Akwa Ibom	1991 - 1996,1998
Anambra	1991 - 1995,1998
Cross River	1986 - 1987,1991-1995,1998
Enugu	1991 - 1995,1998
Imo	1986,19988-1990,1992-1995,1998
Kaduna	1988 - 1995,1998
Katsina	1988 - 1995,1998
Ondo	1987 - 1998

**Iris Potato:**

Nigeria (National)	1975 - 1998
Plateau	1986 - 1998

**Sweet Potato:**

Nigeria (National)	1986 - 1998
Akwa Ibom	1993 - 1998
Anambra	1991 - 1998
Enugu	1993 - 1998

**Yam:**

Nigeria (National)	1975 - 1998
--------------------	-------------

Abia State	1992 - 1995, 1998
Adamawa	1993, 1995, 1998
Akwa Ibom	1991 - 1995, 1998
Anambra	1991 - 1995, 1998
Benue	1981 - 1983, 1985-1998
Cross River	1991 - 1995, 1998
Edo	1993, 1998
Enugu	1993 - 1995, 1998
FCT	1991 - 1993, 1998
Imo	1993 - 1995, 1998
Kaduna	1992 - 1993, 1998
Katsina	1993, 1998
kogi	1993, 1998
Kwara	1993, 1998
Lagos	1981 - 1993, 1998
Niger	1993, 1998
Ogun	1981 - 1993, 1998
Ondo	1993, 1998
Osun	1993, 1998
Oyo	1993, 1998
Plateau	1993, 1998
Rivers	1993, 1998
Taraba	1993, 1998

**Pepper:**

Nigeria (National)	1988 - 1990
Katsina State	1998
Ondo	1987 - 1990

**Ginger:**

Nigeria (National)	1989 - 1998
--------------------	-------------

**Vegetable:**

Nigeria (National)	1975 - 1998
--------------------	-------------

**Bambara Nuts**

Nigeria (National)	1995 - 1996
Borno State	1995
Yobe	1994 - 1996

**Cowpea/Bean**

Nigeria (National)	1984 - 1995
Akwa Ibom	1993 - 1995, 1998
Anambra	1991 - 1995, 1998
Bauchi	1982 - 1986, 1988-1990, 1998
Benue	1986 - 1990, 1998
Borno	1988, 1993-1995, 1998
Enugu	1993 - 1995, 1998
Kaduna	1985 - 1995, 1998
Kano	1988
Katsina	1988 - 1995, 1998
Niger	1981 - 1990, 1998



Ogun  
Ondo  
Oyo  
Plateau  
Rivers  
Sokoto  
Yobe

1983, 1987-1990, 1998  
1983 - 1990, 1998  
1984 - 1990, 1998  
1986 - 1990, 1998  
1987 - 1990, 1998  
1981 - 1990, 1998  
1993 - 1995, 1998

**Groundnut:**

Nigeria (National)  
Abia State  
Adamawa  
Bauchi  
Benue

1975 - 1977  
1992 - 1998  
1995 - 1998  
1982-1983, 1985-1990, 1995-1998  
1981 - 1983, 1985-1990,  
1995-1998

Borno  
Cross River

1986, 1988-1991, 1993-1998  
1986 - 1987, 1995-1998

Edo  
Enugu  
FCT

1995 - 1996  
1995 - 1998  
1995 - 1998

Gongola  
Imo

1988 - 1990  
1992 - 1995, 1998

Jigawa  
Kaduna

1995 - 1998  
1985, 1987-1998

Kano  
Katsina

1982 - 1983, 1995-1998  
1988 - 1996, 1998

Kebbi  
kogi

1995 - 1998  
1995 - 1998

Kwara

1981, 1983-1984, 1986-1987,  
1993-1998

Niger  
Ondo

1981 - 1990, 1995-1998  
1988 - 1990, 1995-1998

Osun  
Oyo

1995 - 1998  
1995 - 1998

Plateau  
Rivers

1987 - 1990, 1995-1998  
1996 - 1998

Sokoto  
Taraba

1983 - 1990, 1995-1998  
1995 - 1998

Yobe

1993 - 1998

**Soyabeans:**

Nigeria (National)  
Adamawa  
Bauchi  
Benue

1975 - 1979, 1981-1997  
1996 - 1998  
1996 - 1998  
1981 - 1983, 1985-1990,  
1996-1998

FCT  
Jigawa  
Kaduna  
Kano

1996 - 1998  
1996 - 1998  
1988 - 1998  
1988

Katsina	1988 - 1998
kogi	1996 - 1998
Kwara	1995 - 1998
Nasarawa	1996 - 1998
Niger	1981 - 1990, 1996-1998
Ondo	1988 - 1990, 1996-1998
Oyo	1995 - 1998
Plateau	1996 - 1998
Taraba	1996 - 1998
Zamfara	1996 - 1998

**Plantain:**

Nigeria (National)	1975 - 1997
Ondo	1987 - 1990
Rivers	1987 - 1990

**Cocoa:**

Nigeria (National)	1975 - 1997
--------------------	-------------

**Coffee**

Nigeria (National)	1975 - 1982, 1984-1996
--------------------	------------------------

**Palm Kernel**

Nigeria (National)	1987 - 1998
--------------------	-------------

**Rubber**

Nigeria (National)	1975 - 1998
--------------------	-------------

**Melon:**

Nigeria (National)	1975 - 1996
States	
Imo	1984 - 1986, 1988, 1990, 1998
Niger	1981 - 1995, 1998
Ondo	1983 - 1986, 1988, 1990, 1998
Oyo	1983 - 1988, 1998

**Coconut:**

Nigeria (National)	1975 - 1996
--------------------	-------------

**Sheanut**

Nigeria (National)	1975 - 1998
--------------------	-------------

**Kolanut**

Nigeria (National)	1991 - 1992
--------------------	-------------

**Cotton Seed**

Nigeria (National)	1975 - 1998
--------------------	-------------

Nigeria (National)	Benniseed	1975 - 1998
<b>Wheat:</b>		
Nigeria (National)		1975 - 1998
<b>Cotton:</b>		
Nigeria (National)		1975 - 1998
States		
Bauchi		1982 - 1990
Borno		1988 - 1998
Kaduna		1988 - 1998
Katsina		1988 - 1998
Niger		1984 - 1998
Oyo		1987 - 1998
Plateau		1987 - 1989
Sokoto		1986 - 1998
<b>Tobacco:</b>		
Nigeria (National)		1975 - 1996, 1998
<b>Sugar cane:</b>		
Nigeria (National)		1975 - 1997

**FERTILIZER:**

There is information on imported fertilizer for the entire country (Nigeria) within the period 1981 to 1990. The problem of incomplete records from states make aggregation impossible.

On state basis the inventory on fertilizer application records in metric tonnes are as below:-

State	Period
Abia	1992 - 1997
Adamawa	1991 - 1997
Akwa Ibom	1991 - 1997
Anambra	1992 - 1997
Bauchi	1992 - 1997
Borno	1991 - 1997
Benue	1992 - 1997
Cross River	1992 - 1997
Delta	1992 - 1997
Edo	1991 - 1997
Enugu	1992 - 1997
FCT	1991 - 1997
Imo	1991 - 1997
Jigawa	1992 - 1997
Kaduna	1991 - 1997
Kano	1991 - 1997
Katsina	1991 - 1997
Kebbi	1992 - 1997
kogi	1991 - 1997
Kwara	1991 - 1997
Lagos	1991 - 1997
Niger	1992 - 1997
Ogun	1991 - 1997
Ondo	1991 - 1997

Rivers 1991 - 1992, 1995-1997  
Sokoto 1992 - 1997

**Goat**

Nigeria (National) 1980 - 1997  
**States:**  
Abia State 1992 - 1994, 1997  
Akwa Ibom 1991 - 1997  
Anambra 1991 - 1992, 1994-1997  
Bauchi 1992 - 1997  
Benue 1991 - 1997  
Borno 1991 - 1997  
Cross River 1991 - 1997  
Edo 1991 - 1996  
FCT 1991 - 1992, 1995-1997  
Imo 1991 - 1997  
Kaduna 1991 - 1994, 1996-1997  
Kano 1992 - 1997  
Katsina 1992 - 1997  
Lagos 1991 - 1997  
Niger 1991 - 1997  
Ogun 1991 - 1997  
Ondo 1991 - 1997  
Osun 1992 - 1997  
Plateau 1991 - 1997  
Rivers 1991 - 1993, 1995-1996  
Sokoto 1991 - 1997

**Sheep**

Nigeria (National) 1980 - 1997  
**States:**  
Abia State 1996  
Akwa Ibom 1995, 1997  
Anambra 1995 - 1997  
Bauchi 1995 - 1997  
Benue 1995 - 1997  
Borno 1995 - 1997  
Cross River 1995 - 1997  
Edo 1995 - 1997  
FCT 1995 - 1997  
Imo 1995 - 1997  
Kaduna 1995 - 1997  
Kano 1995 - 1997  
Katsina 1995 - 1997  
kogi 1997  
Kwara 1995 - 1996  
Niger 1995 - 1997  
Ogun 1995, 1997  
Ondo 1995 - 1997  
Osun 1996  
Oyo 1995 - 1997  
Plateau 1995 - 1997

Rivers	1996 - 1997
Sokoto	1996 - 1997
<b>Pig</b>	
Nigeria (National)	1980 - 1997
<b>States</b>	
Abia State	1992 - 1994,1996
Adamawa	1995 - 1997
Akwa Ibom	1991 - 1997
Anambra	1991 - 1992,1995-1997
Bauchi	1995 - 1997
Benue	1991 - 1993
Cross River	1992 - 1997
Edo	1995 - 1997
FCT	1994 - 1995,1997
Imo	1995 - 1997
Kaduna	1991, 1994-1997
kogi	1996
Kwara	1992 - 1997
Niger	1995 - 1997
Ogun	1991 - 1997
Ondo	1992 - 1997
Osun	1991 - 1997
Plateau	1991 - 1996
Rivers	1991, 1995-1997
Sokoto	1995 - 1997
<b>Camel</b>	
Nigeria (National)	1996 - 1997
<b>States:</b>	
Abia State	1996
Benue	1996 - 1997
Borno	1996 - 1997
katsina	1996 - 1997
kwara	1996
<b>Poultry</b>	
Nigeria (National)	1980 - 1997
<b>States</b>	
Cross River State	1996
Katsina	1996
Kogi	1996
kwara	1996
Ondo	1996
Osun	1996
Taraba	1996

National Data are available on the following species and the period indicated below:-

Species	Period (The figures are
Cattle	1984 - 1993

Goat	1984 - 1993
Sheep	1984 - 1993
Pig	1984 - 1993
Rabbits	1984 - 1990
Donkey	1984 - 1990
Camel	1984 - 1993
Horse	1984 - 1990
Local Chicken	1985 - 1990
Agric. Chicken	1985 - 1990

Data on average market price on National and the State basis per head of the underlisted species are available and the period for which they exist are as below.

**Day old layer:**

Nigeria (National)	1992 - 1993
<b>States:</b>	
Abia State	1992 - 1993
Adamawa	1992 - 1993
Akwa Ibom	1992 - 1993
Anambra	1992
Bauchi	1992 - 1993
Benue	1992 - 1993
Borno	1992 - 1993
Cross River	1992 - 1993
Delta	1992
Edo	1992 - 1993
Enugu	1992 - 1993
FCT	1992 - 1993
Imo	1992 - 1993
Jigawa	1992 - 1993
Kaduna	1992 - 1993
Kano	1992 - 1993
Katsina	1992 - 1993
kogi	1992
Kwara	1992 - 1993
Lagos	1992 - 1993
Niger	1992 - 1993
Ogun	1992
Ondo	1992 - 1993
Osun	1992 - 1993
Oyo	1992 - 1993
Plateau	1992 - 1993
Rivers	1992 - 1993
Yobe	1992 - 1993

Day old chick (Broilers)	
Nigeria (National)	1992 - 1993

Abia State	1992 - 1993
Adamawa	1992 - 1993
Akwa Ibom	1992 - 1993
Anambra	1992
Bauchi	1992 - 1993
Benue	1992 - 1993
Borno	1992 - 1993
Cross River	1992 - 1993
Delta	1992
Edo	1992 - 1993
Enugu	1992 - 1993
FCT	1992 - 1993
Imo	1992 - 1993
Jigawa	1992 - 1993
Kaduna	1992 - 1993
Kano	1992 - 1993
Katsina	1992 - 1993
kogi	1992
Kwara	1992 - 1993
Lagos	1992 - 1993
Niger	1992 - 1993
Ogun	1992
Ondo	1992 - 1993
Osun	1992 - 1993
Oyo	1992 - 1993
Plateau	1992 - 1993
Rivers	1992 - 1993
Yobe	1992 - 1993

Nigeria (National) Day old Chick (Cockerel)	1992 - 1993
Abia State	1992 - 1993
Adamawa	1992 - 1993
Akwa Ibom	1992
Anambra	1992 - 1993
Bauchi	1992 - 1993
Benue	1992 - 1993
Borno	1992 - 1993
Cross River	1992 - 1993
Delta	1992
Edo	1992 - 1993
Enugu	1992 - 1993
FCT	1992 - 1993
Imo	1992 - 1993
Jigawa	1992 - 1993
Kaduna	1992 - 1993
Kano	1992 - 1993
Katsina	1992 - 1993
kogi	1992
Kwara	1992 - 1993
Lagos	1992 - 1993
Niger	1992 - 1993

Ogun	1992
Ondo	1992 - 1993
Osun	1992 - 1993
Oyo	1992 - 1993
Plateau	1992 - 1993
Rivers	1992 - 1993
Yobe	1992 - 1993

States: Day old chick (Turkey)

Abia State	1992 - 1993
Akwa Ibom	1992 - 1993
Anambra	1992
Bauchi	1993
Benue	1993
Cross River	1992 - 1993
Edo	1992 - 1993
Enugu	1993
Imo	1993
Katsina	1992 - 1993
Kwara	1993
Ogun	1992
Ondo	1992
Oyo	1992 - 1993
Rivers	1992 - 1993

Cattle:

Nigeria (National)	1984 - 1994
--------------------	-------------

States:

Abia State	1992 - 1994
Adamawa State	1991 - 1994
Akwa Ibom	1991 - 1994
Anambra	1991 - 1992
Bauchi	1992 - 1994
Benue	1991 - 1993
Borno	1991 - 1994
Cross River	1991 - 1992, 1994
Delta	1991 - 1992, 1994
Edo	1991 - 1994
Enugu	1991 - 1993
FCT	1991 - 1994
Imo	1991 - 1994
Jigawa	1992 - 1994
Kaduna	1991 - 1994
Kano	1992 - 1994
Katsina	1992 - 1994
Kebbi	1992 - 1994
kogi	1992 - 1994
Kwara	1991 - 1994
Lagos	1991 - 1994
Niger	1991 - 1994



Ogun	1994
Ondo	1991 - 1994
Osun	1992 - 1994
Oyo	1991 - 1994
Plateau	1991 - 1994
Rivers	1991 - 1993
Sokoto	1992 - 1994
Yobe	1992 - 1994

**Goat:**  
Nigeria (National) 1984 - 1994

**States:**

Abia State	1993 - 1994
Adamawa	1991 - 1994
Akwa Ibom	1991 - 1994
Anambra	1991 - 1994
Bauchi	1992 - 1994
Benue	1991 - 1994
Borno	1991 - 1994
Cross River	1991 - 1994
Delta	1992, 1994
Edo	1991 - 1994
Enugu	1991 - 1993
FCT	1991 - 1992
Imo	1991 - 1994
Jigawa	1992 - 1994
Kaduna	1991 - 1994
Kano	1992 - 1994
Katsina	1992 - 1994
Kebbi	1992 - 1994
kogi	1992
Kwara	1992
Lagos	1992 - 1994
Niger	1991 - 1994
Ogun	1991 - 1994
Ondo	1991 - 1994
Osun	1992 - 1994
Oyo	1991 - 1994
Plateau	1991 - 1994
Rivers	1991 - 1993
Sokoto	1991 - 1994
Yobe	1992 - 1994

**Sheep:**  
Nigeria (National) Sheep 1984 - 1994

**States:**

Abia State	1991 - 1993
Adamawa	1992 - 1994
Akwa Ibom	1991 - 1994

Anambra	1991 - 1994
Bauchi	1991
Benue	1991 - 1994
Borno	1991 - 1994
Cross River	1991 - 1994
Delta	1992 - 1994
Edo	1991 - 1994
Enugu	1991 - 1993
FCT	1991 - 1994
Imo	1991 - 1994
Jigawa	1992 - 1994
Kaduna	1991 - 1994
Kano	1991 - 1994
Katsina	1992 - 1994
Kebbi	1992 - 1994
kogi	1992 - 1994
Kwara	1992 - 1992
Lagos	1992 - 1994
Niger	1991 - 1994
Ogun	1991 - 1994
Ondo	1992 - 1994
Oyo	1991 - 1994
Plateau	1991 - 1994
Rivers	1991 - 1992
Sokoto	1992 - 1994
Yobe	1992 - 1994

**Pigs:**  
Nigeria (National)                      Pig                      1984 - 1994

**States:**

Abia State	1992 - 1994
Akwa Ibom	1991 - 1994
Anambra	1991 - 1992
Bauchi	1991 - 1992
Benue	1991 - 1993
Borno	1992
Cross River	1992 - 1994
Delta	1994
Enugu	1991 - 1993
Imo	1991, 1993
Jigawa	1992 - 1993
Kaduna	1991 - 1992, 1994
Kwara	1992 - 1994
Lagos	1994
Ogun	1991 - 1994
Ondo	1992 - 1994
Osun	1992 - 1994
Oyo	1991 - 1994
Plateau	1991 - 1994
Rivers	1991
Yobe	1992 - 1994

Marine crabs  
Gold fish  
EELS  
Shade  
Tenpounder

1989 - 1994

Nigeria (National)	Donkey	1985 - 1990
Nigeria (National)	Camel	1984 - 1994
Nigeria (National)	Horse	1986 - 1990

#### FISHERIES SUB-SECTOR DATA

Fishery subsector has national production data (mt) on the underlisted species and the duration for such data are indicated below:-

<u>Species</u>	<u>Period</u>
Carp	1980 - 1994
Tilapia	1980 - 1983, 1985-1994
Moonfish	1980 - 1982, 1984-1994
Niger perch	1980 - 1994
African Lung fish	1980 - 1994
Elephant snout	1980 - 1982, 1984-1994
Truck fish	1980 - 1994
Bony Tongue fish	1980 - 1994
Tiger fish	1980 - 1994
Cat fish	1980 - 1994
Sea Cat fish	1980 - 1994
Glass catfish	1980 - 1982, 1984-1994
Silver catfish	1980 - 1994
Electric catfish	1980 - 1994
Sole	1980 - 1994
Snapper	1980 - 1994
Grunter	1980 - 1987
Croaker	1980 - 1994
Smoked fish	1987
Horse meckerel	1989 - 1994
African pike	1980 - 1994
Mullet	1980 - 1994
Barracuda	1980 - 1994
Threadfin	1980 - 1994
Bonga fish	1980 - 1994
Lady fish	1980 - 1994
Cutlass fish	1980 - 1981, 1983-1984
Rays and Skates	1980 - 1994
Various Sharks	1980 - 1994
Shrimps	1980 - 1994
Sailfish/Birchir	1980 - 1982, 1984-1994
Mackerel	1980 - 1994
Sting ray	1980 - 1994
Grouper	1987 - 1994
Snake head	1987 - 1994
Drum fish	1987 - 1994
Black rock fish	1987 - 1988, 1991
Flat fish	1987 - 1992
Razor fish	1987
Needle fish	1987 - 1993
Sea Breams	1987 - 1994
Spade fish	1988 - 1994
Puffer fish	1988, 1990, 1992-1993
Crabs	1988

Croaker	1980 - 1988
Ray	1980 - 1988
Sole	1980 - 1988
Shark	1980 - 1988
Threadfin	1980 - 1988
Catfish	1980 - 1988
Grunter	1980 - 1988
Moonfish	1980 - 1988
Shrimps	1980 - 1988
Miscellaneous	1980 - 1988
Crab	1980 - 1988

Data on catches from trawl inshore shrimping (mt) are available for the below stated duration:-

<u>Species</u>	<u>Period</u>
Shrimps	1980 - 1989
Croaker	1980 - 1989
Sole	1980 - 1989
Ray	1983 - 1989
Catfish	1983 - 1989
Grouper	1987 - 1989
Miscellaneous	1980 - 1989

**INTERNATIONAL TRADE DATA:**

On international trade data the national basis on export on the following items for the period indicated below:-

<u>Item</u>	<u>Period</u>
Cashew nut	1985 - 1987, 1989-1993
Cassava & Garri	1987 - 1989
Fresh Vegetable	1988 - 1990
Coconuts	1987, 1990, 1993-1994
Cocoa Powder	1988, 1990-1991, 1993
Coffee	1985, 1987-1995
Cotton Seed	1987 - 1991, 1993
Dry Fish	1987 - 1989, 1991
Food Stuff	1986 - 1992
Ginger	1986 - 1993
Groundnut	1990 - 1993
Gum Arabic	1993
Hides & Skin	1985 - 1992
Kola nuts	1985 - 1989, 1991-1993
Maize	1986, 1988-1994
Palm oil	1987 - 1993
Palm Kernel	1985 - 1991, 1993
Palm Kernel oil	1985, 1988
Palm wine	1987 - 1993
Rice	1986, 1991
Rubber	1985 - 1992
Sesame seeds	1985 - 1993
Shrimps	1985 - 1986, 1988-1992
Soyabeans	1989, 1991
Sheanut	1985 - 1993

Tabacco	1987 - 1994
Timber	1986 - 1993
Vegetable oil	1991 - 1992
Wheat	1986 - 1987, 1993-1994
Yam	1987 - 1988, 1990
Animal feeds	1988
Beans	1988, 1991
Cocoa bean	1985 - 1993
Sorghum	1988
Tallow oil	1989

Data the national basis on import on the following items for the period indicated below:-

<u>Item</u>	<u>Period</u>
Cassava & Garri	1988
Cotton seed	1987 - 1992
Frozen/Dry fish	1985 - 1992
Food stuff	1987 1991
Groundnuts	1986 - 1991
Kolanut	1986 - 1990
Maize	1985 - 1992
Palm oil	1986 - 1987
Rice	1985 - 1993
Rubber	1991
Soyabean	1985 - 1992
Tabacco	1985 - 1993
Timber log	1990 - 1991
Vegetable oil	1985 - 1992
Wheat	1985 - 1994
Animal feed	1985 - 1992
Fresh vegetable	1988
Sorghum	1985 - 1993
Tallow oil	1985 - 1991
Frozen chicken	1985 - 1990
Frozen meat	1985 - 1992
Groundnut pellet	1987
Malt & Barley	1985 - 1994
Millet	1988

## LIST OF ABBREVIATIONS

ADB	-	Agricultural Data Bank
CBN	-	Central Bank of Nigeria
CPD	-	Central Planning Department
CTA	-	Chief Technical Adviser
EA	-	Enumeration Area
FCT	-	Federal Capital Territory
FMA	-	Federal Ministry of Agriculture
FMARD	-	Federal Ministry of Agriculture & Rural Development
FMST	-	Federal Ministry of Science and Technology
FOS	-	Federal Office of Statistics
FPMU	-	Federal Project Monitoring Unit
NAC	-	National Agricultural Census
NADPC	-	National Agricultural Development Planning Committee
NASCCO	-	National Agro-Statistics Coordinating Committee
NCA	-	National Council for Agriculture
NDB	-	National Data Bank
NEPA	-	National Electric Power Authority
NIHS	-	National Integrated Household Survey
NSIS	-	National Statistical and Information Systems
PRSD	-	Planning, Research and Statistics Department
SAC	-	Survey Advisory Committee
SASCCO	-	State Agro-Statistics Coordinating Committee
TCADM	-	Technical Committee on Agricultural Data Management
WRRD	-	Water Resources and Rural Development