AN ASSESSMENT OF CORPORATE PROPERTY ASSETS MANAGEMENT (A CASE STUDY OF NATIONAL CEREALS RESEARCH INSTITUTE NCRI BADEGGI)

By

Musa Hadiza Talatu and Dr. U. J. Adama
Department of Estate Management and Valuation,
Federal University of Technology, Minna, Nigeria
hadzatmusa85@gmail.com
Phone Number 08068982944

ABSTRACT

One major challenge confronting developing countries like Nigeria is that of inadequate provision and maintenance of corporate public assets and their worsening state is usually linked to inadequate and inefficient management culture. The aim of the study is to assess how corporate property assets are managed in the Nigerian Cereals and Research Institute NCRI, Badeggi, Niger state and this was achieved by identifying the categories of assets in the organization, the condition of these assets, examining the factors influencing their present condition and the identification of the management strategy that is adopted in the management of the assets in the study area. Data was collected with the use of questionnaires, personal observation and oral interview. Based on the Snowball's non-probabilistic sampling techniques, a sample size of 24 respondents was chosen. Finding showed that, though the office complexes and staff quarters are in good condition, many facilities and infrastructures in the Institute are performing below specification and many of them have lost their economic value. Factor considered by the respondents for the poor state of assets in the study area include lack of maintenance policy with Relative Importance Index (RII) of 0.9904761905, misuse of assets by the users with RII of 0.9333333333 and Lack of timely response to maintenance work with RII of 0.8285714286. The less important factors include lack of experienced and well trained building maintenance personnel, inadequate provision of fund for maintenance and corruption with RII values of 0.7809523810, 0.7904761905 and 0.7619047619 respectively. The absence of efficient culture of maintenance is partly due to the absence of a clear-cut corporate assets maintenance policy. It was recommended that the institute should introduce effective monitoring and evaluation scheme, make adequate allocation of fund for assets management, develop a technical know-how on how to maintain and manage the procured properties, instill the spirit of patriotism and ownership among users of these assets, develop a legal framework on assets management, develop the political will to punish staff who are careless with properties in their custody and reward committed members of staff with regards to management of assets in their custody.

Keywords: Assets, Property, Facility, Management, Maintenance.

INTRODUCTION

One of the reasons for the establishment of public organizations in Nigeria was for the purpose of using them to provide jobs and to render social services rather than profit making enterprises (Ogohi, 2014). However, the government of Nigeria has laid emphasis

on the privatization of some of these organizations due to operational inefficiency (Akinola, 2021) and this scenario is in agreement with Shah (2007) who associated the state of dysfunctionality of public sector with corruption, inefficiency and waste of resources in many developing countries. Some common features associated with these organizations are the use of plants, equipment and vehicles in the day-to-day running of the organizations. Plants, according to Bullinger *et al*. (2013) are all physical means of production available in a factory or company. Based on this definition, plants can include; the buildings, fixtures, machines tools, service machinery and workshop equipment. Failure may occur due to improper use of equipment. Even though plants/equipment might have been designed to be reliable, failure cannot be said to have been completely eliminated. Hence plants/equipment's maintenance should always be carried out if equipment reliability must be ensured.

Corporate Public assets, in this context are regarded as assets provided, owned, or being used by government either at the federal, state or local government level. Iwarere and Lawal (2011) noted that these assets can be movable and non-movable, with the former being in form of vehicles, computers, typewriters and other facilities in like manners while the later are non-movable assets like buildings, electricity lines, pipelines for water, whose location cannot be easily changed. More often than not, attention have been given to movable public assets especially plants and equipment. Whichever group that these corporate assets belong to, notwithstanding, should not be used to decide the level of attention given to them when it has to do with the management of corporate assets (Tsang, 2002).

Mikler (2015) further noted that all assets used by public organizations require effective regular maintenance for proper functioning because their level of efficiency has strong relationship with the degree of maintenance given to them. Unfortunately, however,

maintenance is one of the major problems facing the assets in public corporate organizations in Nigeria and with a resultant effect of having their premises littered with broken down plants/equipment which are allowed to rust away under rainy and sunny conditions and eventually are sold as scraps (Adeyemi and Muhammed, 2017).

The report of the National Research Council (2012) showed that the concept of corporate assets management has become imperative due to the necessity bordering on the improvement of public infrastructures that are experiencing decay throughout government establishments. While adequate culture of corporate assets management is germane to the growth of public corporate organization (Alani, 2012), the absence of efficient culture of maintenance in public sectors according to Iruobe (2011) and Tijani *et al*. (2016) have been observed to be an insurmountable huddle in an infrastructure-driven national development. It was based on this that Tijani *et al*. (2016) concluded that the reasons why the mandates of most public corporate organisations are not achieved are partly due to absence of a clear-cut corporate assets maintenance policy in the country. The National Cereals Research Institute (NCRI) Badeggi, being one of the fifteen commodities Agricultural Research Institute in Nigeria is mandated to undertake for the genetic improvement of rice, sugarcane, soyabean, acha, beniseed and castor as well as research on farming systems and extension in every area of agriculture within the states in the North Central Zone. Since Organizational assets play vital role in actualizing the goals and objectives of an organization, physical needs of members of staff of organizations can be met by providing safe structure, adequate sanitary facilities, a balanced visual environment, appropriate thermal environment, safe working instruments and sufficient shelter space for his work (Mikler, 2015).

DESCRIPTION OF THE STUDY AREA HISTORICAL BACKGROUND AND LOCATION OF BADEGGI

Badeggi is one of the political wards of Katcha Local Government Area Councils of Niger state and is located at latitude 9.0568° N, 6.1434° E. Geographically, it is located at the southern part of the Niger state and it is bounded in the north by the local governments of Gbako and Bosso, in the south by Niger River and Mokwa Local Government areas, in the east and west by Agaie, Bida and Lavun Local Government respectively. Other political wards are Katcha, Edotsu, Gbakogi, Bakeko, Sidi saba, Dzwafu, Bisanti, Essa, and Kataeregi wards.

The National Cereals Research Institute (NCRI) Badeggi is one of the fifteen (15) commodities Agricultural Research Institute in Nigeria under the aegis of the Federal Ministry of Agriculture and Rural Development. The Institute was established by an Agricultural Research order of 1975 but has a long history dating back to 1898 when the first precursor of Department of Agriculture was established by the then British Colonial Administration as an observatory Botanical Garden in Lagos. The Department later metamorphosed in to the Federal Department of Agricultural Research, Moor plantation in 1954 and charged with the responsibility of conducting research on all agricultural crops and farming practices throughout the Country. The 1975 Agricultural Research Institutes order limited the research mandate of the Institute to the problems of rice, maize, grain legumes and sugarcane as well as those of farming systems throughout Nigeria.

The Headquarters of the institute remained at moor plantation, Ibadan until December 1984 when it was moved to the Institute Rice Research Station, Badeggi which is now the Headquarters. The re-organization of the Nigeria Research Institute in 1987 further changed the mandate of the Institute with the national mandate for the genetic improvement of rice, sugarcane, soybean, acha, beniseed and castor as well as research

on farming systems and extension in every area of agriculture within the states in the North Central Zone which include Nassarawa, Kwara, Taraba, Niger, Plateau, Kogi and the Federal Capital Territory (FCT).

The National Cereals Research Institute (NCRI), an agency of the Federal Ministry of Agriculture and Rural Development, is under the supervision of the Agricultural Research Council of Nigeria (ARCN), from where its funding and coordination take place. The Institute has a governing Board but headed administratively by an Executive Director.

LITERATURE REVIEW

Conceptual Framework

Studies undertaken with regards to the management of public assets cannot be complete if the fundamental concepts of the nature and functions of public assets is neglected (Ang, 2014). In the management of public corporate assets, the definition of each asset should as a matter of importance be conceptually and operationally defined in order to have a clear cut characteristics and classification (Abhayawansa, Aleksanyan and Bahtsevanoglou, 2015). It is based on this that the objectives and goals of a given assets management is classified based on the missions of any corporate organization. This is why Haynes, Nunnington and Eccles (2017) noted that issues related to the management of public asset should be explored with these goals in mind; improvement of asset performance, its effectiveness and efficiency when it has to do with corporate public asset.

Definition and classification of public assets

The definition of assets is perspective dependents and hence can be viewed from different perspectives. Biondi and Lapsley (2014) noted that from the view of accounting, assets is seen as a resource controlled by the enterprise as a result of past events and from which future economic benefits are expected to flow to the enterprise. In the view of the Financial Accounting Standards Board (IASB), assets are defined probable future

economic benefits obtained or controlled by a particular entity as a result of past transactions or events (El-Tawy, 2020). It is based on these two definitions that the IASB made a proposition about a working definition of what assets should be. Hence assets is defined as a present right, or other access, to an existing economic resource with the ability to generate economic benefits to the entity ((El-Tawy, 2020). Broadly speaking, definitions of assets indicate that assets have the following characteristics:

i.   a right or access, which means an aspect of control and excludes other people's access;

ii.   an economic resource that has value and is scarce;

iii.   the ability to generate future economic benefits, or the ability to produce favorable cash flows; and

iv.   a completed transaction that leads to the entity's right to control of the benefit (Öztürk *et al*., 2019).

It is important to note two common characteristics of assets on the balance sheet. One characteristic is that assets are not necessarily associated with ownership because assets equal liabilities plus equity, where equity is equivalent to net asset (Garbinti,Goupille-Lebret and Piketty, 2017). This means that assets are not necessarily equal to net assets. The other characteristic is that assets are measured in financial statements as of the date of the balance sheet (Ruppel, 2015).

Assets have also been defined in terms things that are tangible (like, cash, real estate, and equipment) and things that are intangible (like patents, trademark, trade name and franchise). With regards to tangible assets, it can further be grouped into immovable and movable types. The immovable (fixed) assets like the real estate which cannot be used after being moved and the movable ones that can be moved and used after removal like equipment, furniture, and automobiles (Viljoen, 2014). From an accounting perspective,

assets are categorized into current assets (including cash and cash equivalent, short-term investment, accounts receivable, tax receivable, inventory, and prepaid expenses), and non-current assets, including long-term investments and fixed assets like land, buildings, equipment, furniture, tools, infrastructure, public housing projects, and water distribution systems (Viljoen, 2014). Figure 2.0 shows a schematic representation of public assets classification.
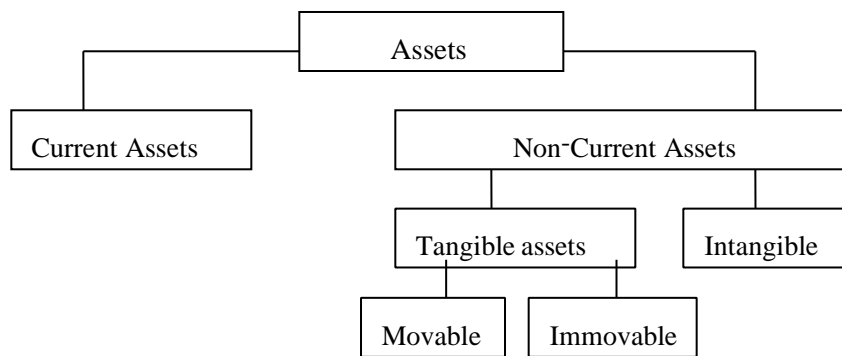

Figure 2.0: Classification of Public Asset

Government obtains assets in ways different from private businesses. Government revenue is mainly obtained through statutory authority while private businesses receive revenue from the sale of goods and services. Based on this, in corporate public organizations, an asset can be viewed as public economic resource that is obtained or controlled by government as a result of past transactions and events, including legal obligations (Viljoen, 2014). Generally, public assets are indispensable means by which government operates to provide public services and produce public goods. Governments at different levels or even governments at the same level may have different arrays of assets under control

From a management perspective, Saraubon, Chinakul and Chanpen (2019) classified all public fixed assets into three categories in term of their uses and functions:

i.   Fixed assets for governmental use (e.g., offices, police stations, firehouses, warehouses),

ii. Fixed assets for social use (school buildings, health service facilities, public housing, parks and recreation facilities), and

iii. Surplus fixed assets

From the work of Hentschel and Utter (2016) it was reported that the core assets that government uses to achieve its goals in the delivery of services are the government-use assets and social-use assets. But with regards to the surplus fixed assets, they are considered to be non-core assets which only play supplementary or complementary roles in service delivery by the government.

The Concept of Asset Management

Asset management has been defined and described differently by different sources. According to the Royal Institute of Chartered Surveyors (RICS) (2008), asset management is defined and described after considering and evaluating several published definition. Thus, RICS (2008) defines asset management as 'a structured process that seeks to ensure best value for money from property assets in serving the strategic needs of public sector organisations. In considering this definition and other definitions of asset management, RICS (2008) concludes that 'there appears to be considerable consensus over the basic characteristics of strategic asset management for land and buildings and a distinction between strategic asset management and operational property management'

RESEARCH METHODOLOGY

Research design

Descriptive research survey design was used in building up this research work. The choice of this design was considered appropriate because of its advantages of identifying attributes of a large population from a group of individuals. The design was suitable for the study as the study sought to assess Corporate Property Assets Management in Nigerian Cereals and Research Institute NCRI, Badeggi, Niger state.

DATA TYPE AND SOURCE
PRIMARY DATA

Primary data were obtained through the use of well-structured questionnaires. The questions were structured base on the set objectives which are to satisfy or achieve the aim of the study. The questionnaires were designed in the distinct ways which focuses on gathering information from the concerned group of people that make the population for the study (Members of Staff of Nigerian Cereals and Research Institute).

Secondary Data

Secondary data were obtained from documentary source made up of published and unpublished materials such as Books, Journals, Conference Paper, and Lecture Notes, to enhance the quality of the research work. Data were also gathered from the directory of the Nigerian Cereals and Research Institute NCRI, Badeggi, Niger State.

Population of the study

Population of a study is a group of persons or aggregate items, or things. The researcher is interested in getting information which will aid in assessing Assessment of Corporate Property Assets Management in the study area. Therefore, the population of the study included some selected staffs of Nigerian Cereals and Research Institute NCRI, Badeggi, Niger state, which cut across various sections of both operations and Services Department.

Sampling Technique and Sample Size

Sample is the set of people or items which constitute part of a given population sampling. The Institute is made up of eight departments as indicated in section 1.6 of the study area. This include the Operations that is made up of five (5) departments and Services that is made up of three sub-departments; Administration, Finance and Information and Documentation.

From each of these eighth (8) Departments, three (3) respondents were selected in accordance with the Snowball's non-probabilistic sampling techniques to make a sample size of 24 people. In the Snowball's sampling technique, it is believed that having different set of population in

which it is difficult to access every participating person, it is possible to obtain information from every group if one from each group can be accessed on the ground that that particular person has the capacity to contact another person and the person contacted can contact others and so the chain continues until sufficient information is obtained from each group.

Hence, from each of the department three persons were selected and each of the selected people can contact other members of the department in terms of information required from him in the administered questionnaire. Hence a sample size of 24 was chosen for the study.

RESULT.

What are the categories of assets in the National Cereals Research Institute, Badeggi?

Table 4. 1: Categories of assets in the National Cereals Research Institute, Badeggi

Categories of Public Assets	Total number	Broken Down	Active	Percentage of active items
Buildings	34			
Office	13	-	13	100.00%
Staff Quarters	16	-	16	100.00%
Workshops	4	-	4	100.00%
Clinic building	1	-	1	100.00%
Vehicles	38			
Official vehicles	15	6	9	60.00%
Project vehicles	23	8	16	69.57%
Generators	15			
27 KVA Mikanu Generator	6	5	1	16.7%
5 KVA Generator	9	7	2	22.2%
Tractors and Machines	40			
Small horse power	13	8	4	30.8%
Large horse power	17	7	10	58.2%
Rice Processing Machines	25	17	8	32.0%
Boreholes	5	2	3	60.0%
Printing Machines	13			
Printers	9	4	5	55.6%

Photocopiers	4	3	1	25.0%				

Table 4.1 shows the distribution of some assets according to their categories. It further showed that all the buildings (office complex, staff quarters, workshops and the clinic) are all actively in use by the Institute. But with regards to the vehicles, only 60.0% of them are in active use and these are official vehicles attached to some principal officers in the study area. It can also be observed from Table 4.1 that only 69.57% of the project vehicles are in active use while 30.43% of them are broken down. Out of the six 27 kva power plants owned by the institute, only one of them is actively working while five (5) of them are not in stable condition. Finding also showed that only 22.2% of the lower power generator sets are in active use which indicates that 7 out of 9 of them are not currently in good state to be used for the purpose of the reason of acquisition. The situation is not different from the conditions of the printing machines and rice processing machines which showed high number of these properties that are not in their expected perfect condition for use. Only 32.0% of the rice processing machines are in good condition of use.

4.2.2 What are the conditions of these assets?

Table 4.2: Condition of the Categories of Assets Identified in the Study Area

Assets Categories		Very Good	Good	Fair	Poor	Very Poor	SUM	MEAN	Interpretation
	Freq. (f)	5	4	3	2	1			
Buildings	Mark (x)	13	4	5	2	0	24		
	f(x)	65	16	15	4	0	100	4.05	Good
Vehicles	Mark (x)	1	5	15	1	2	24		
	f(x)	5	20	45	2	2	65	3.09	Fair
Generators	Mark(x)	1	2	16	4	1	24		
	f(x)	5	8	48	8	0	69	3.05	Fair
Tractors	Mark x)	0	1	3	18	2	24		
	f(x)	0	4	9	36	2	51	2.19	Poor
Borehole	Mark(x)	8	4	10	1	1	24		
	f(x)	40	16	30	2	1	89	3.57	Good
Machines	Mark (x)	1	5	8	9	1	24		
	f(x)	5	3	6	36	2	54	2.20	Poor

Parameters for interpretation of weighted mean response; 4.50 – 5.00 = Very Good, 3.50 – 4.49

= Good, 2.50 – 3.49 = Fair, 1.50 – 2.49 = Poor, 1.00 – 1.49= Very Poor.

Table 4.2 shows the state of some selected public assets in the institute. It can be noted that with regards to office building and staff quarters, a weighted mean of 4.05 indicates a good condition as noted by respondents. Weighted mean score of 3.09 and 3.05 for vehicles and tractors respectively show that all vehicles (articulated and non-articulated types) are only fair in their conditions. Most electric generators owned by smaller units and department are either in shortage of fuel or broken down.

The weighted mean value of 2.19 of the respondents indicates the poor state of condition of tractor. Other major public assets like the Clinic and boreholes are reported to be in good condition. There is a very high affirmation that the boreholes are in good state with a weighted mean value of respondent of 3.57. Hence, access to clean drinking water is never a challenge to members of staff of the institute.

4.3 What are the Factors Affecting the State of the Assets in the Study Area

The work of several authors like Oyedele (2012), Adetayo (2018) and Ajakaiye (2018) indicated that assets management in most corporate public organizations are affected by several factors and some of which have negatively the quality of assets management in the study area. Table 4.3 shows respondents responses to factors affecting the state of assets in the study area.

Table 4.3   Factors contributing to the present state of these assets

Factors contributing to the Present State of Assets	N	$\bar{X}$	SD
Corruption hinders effective management of corporate property assets in the organization.	24	3.78	1.24
There is sentiment (nepotism) in the award of contracts.	24	3.49	1.25
There is poor funding.	24	3.84	1.29
Lack of trained specialists in the Units/Department responsible for assets management.	24	2.25	0.68
Lack of political will to prosecute corrupt stakeholders in the management of the public assets	24	3.64	1.22
Theft/inadequate security system is one of the reasons for the poor state of public assets in the organization.	24	2.33	0.76
Administrative bottleneck is the leading cause of inefficient management of the corporate property assets in the organization.	24	3.46	1.21
Total		3.26	1.09

Table 4.3 shows the Mean and Standard Deviation from respondents at the National Cereal Research Institute, Badeggi on factors contributing to the present state of assets in the establishment. It shows the calculated mean score of 3.78 with Standard Deviation of 1.24 for item one, mean score of 3.49 with Standard Deviation of 1.25 for item two, mean score of 3.84 with Standard Deviation of 1.29 for item three, mean score of 2.25 with Standard Deviation of 0.68for item four, mean score of 3.64 with Standard Deviation of 1.22 for item five, mean score of 2.33 with Standard Deviation of 0.76 for item six and mean score of 3.46 with Standard Deviation of 1.21 for item seven. It further revealed the grand mean score of responses to the 7 items as 3.26 which was greater than the decision mean. The respondents generally agreed that corruption, sentiment (nepotism) in the award of contracts, poor funding, lack of political will to prosecute corrupt stakeholders

and administrative bottleneck are the leading cause of inefficient management of the corporate property assets in the organization.

The factors that influence the conditions of the assets in the study area were also analyzed using the Relative Importance Index (RII) as shown in Table 4.4.

Having RII values greater than 0.5 implies that the variables significantly influences the adoption of maintenance strategies in managing corporate property assets in the study area. Lack of maintenance policy with RII of **0.9904761905**, misuse of assets by the users with RII of **0.9333333333** and Lack of timely response to maintenance work with RII of **0.8285714286** are the most important factors contributing to the state of the corporate property assets in the study area. Many reasons may be found supportive of these, being an organization with high numbers of assets which lead to increase in maintenance measures required to ensure effective management of corporate property assets in the study area. The less important factor affecting the state of these assets are Lack of Experienced and well trained building maintenance personnel RII of **0.7809523810**, inadequate provision of funds for maintenance RII of **0.7904761905** and Corruption with RII of **0.7619047619**.

Table 4.4: Relative Index of Factors Contributing to the Present State of Assets in the Study Area

Factors		V. Sig.	Sig.	Av. Sig.	Lit. Sig.	Not Sig.	SUM	A*N	RII=(ΣW/A*N)	RANK
	Mark (x)	5	4	3	2	1		5		
Administrative Bottleneck	Freq. (f)	11	3	4	0	6	**24**	**24**		
	ΣW=f(x)	55	12	12	0	6	**85**	**105**	0.8095238095	4th
Inadequate provision of funds for maintenance	Freq. (f)	10	3	4	2	5	**24**	**24**		
	ΣW=f(x)	50	12	12	4	5	**83**	**105**	0.7904761905	5th
Lack of Proper Leadership efforts	Freq. (f)	4	3	12	1	4	**24**	**24**		
	ΣW=f(x)	20	12	36	2	4	**74**	**105**	0.7047619048	8th
Lack of Experienced and well trained building maintenance personnel	Freq. (f)	10	3	3	4	4	**24**	**24**		
	ΣW=f(x)	50	12	9	8	3	**82**	**105**	0.7809523810	6th
Misuse of assets by the users (Attitudinal Challenge)	Freq. (f)	12	6	3	2	1	**24**	**24**		
	ΣW=f(x)	60	24	9	4	1	**98**	**105**	0.9333333333	2nd
Lack of timely response to maintenance work	Freq. (f)	8	5	7	2	2	**24**	**24**		
	ΣW=f(x)	40	20	21	4	2	**87**	**105**	0.8285714286	3rd
Lack of adoption of maintenance policy	Freq. (f)	15	5	1	3	0	**24**	**24**		
	ΣW=f(x)	75	20	3	6	0	**104**	**105**	0.9904761905	1st
Corruption	Freq. (f)	8	3	5	3	7	**24**	**24**		
	ΣW=f(x)	40	12	15	6	7	**80**	**105**	0.7619047619	7th

4.4   What are the Management Strategy Adopted in the Management of Assets in the

        Study Area?

The Corporate Assets Management Policies adopted by the National Cereal Research

Institute, Badeggi as reflected in the gazette of the Institute is shown column 1, 2 and 3

of Table 4.7 while the observed maintenance practices is indicated in column 4. This

study adopted the use of checklist to compare the Institute's approved standard of assets

management with the observed practices of assets management.

Table 4.5: Maintenance Interval for assets in the study area

MATERIAL	LIFE (YEARS)	STANDARD MAINTENANCE INTERVAL (YEARS)	OBSERVED MAINTENANCE
Roofing materials			
Built-up felt	15-20	3-4	No observed maintenance except when there is leakage
Asphalt	20-60	6-7	No maintenance observed
Concrete cement	20 and more	Very durable	No observed maintenance
Asbestos cement	26-40. This is location dependent (Air pollution). It becomes brittle after 40 years.	6-7	No observed maintenance
Zinc	20-40 and more. This is location dependent (Air pollution)	6-7	No observed maintenance except when affected by storm.
Aluminium	50-60. This is location dependent (Air pollution)	6-7	No observed maintenance
Copper	100-300	Very durable	No observed maintenance
Electrical Installations			
Wiring systems	20-30	Any wiring system that is above 35 years is expected to be replaced	No observed routine inspection except when there is electrical fault.
Lighting systems	Depending of the types of lighting system	Routine inspection should be carried out at most every 6 months	No observed routine check except when light bulbs fail to display light. Even at that, some offices, corridors and quarters depend on the good will of some occupants to be replaced.

Water supply and sanitary systems			
Overflow pipes		Periodic check is required based on usage	None observed except when there is failure in terms of operation.
Taps and ball valves		Periodic check is required based on usage	
Bends and channels			
Drains	Depending on environmental control policy of the location	Should be water-tested at an interval of 2-3 years	Drainages are always blocked before evacuation is carried out.
Soak away	Depending of number of people whose wastes are directed to the soak away pit.	Should be empties periodically when it is filled	Covers are broken and take long bureaucratic process for approval to be made for repairs.
Workshops	Durability depends on usage and maintenance culture	Quarterly reports on the state of machines and tools. Tools and machines are maintained based on need and usage	Repair and maintenance only when working tools have worn out and completely ineffectual.
Office complex	Most building components last 26-40 years	Monthly inspection of the entire office complex	No observed maintenance of facilities in the office complex
Vehicles			
Articulated vehicle	Durability depends on usage and maintenance culture	Services is based on number of kilometers covered/	Only after vehicles show noticeable problems before repairs a undertaken
Non-articulated vehicles	Durability depends on usage and maintenance culture	Services is based on number of kilometers covered	Only after vehicles show noticeable problems before repairs a undertaken
Tractors			
Small Horse Power	Durability and efficiency depends on culture of maintenance	Should be serviced every 100 hours of use	Services are hardly done and maintenance/ repair is done after machines show noticeable problems
Large Horse Power	Durability and efficiency depends on culture of maintenance	Should be serviced every 300 hours of use	Services are hardly done and maintenance/ repair is done after machines show noticeable problems
Rice Processing Machines	Depends on maintenance culture	Daily maintenance is required or at least weekly.	Services and maintenance undertaken during harvesting season and that only when machine

		develops fault.
Boreholes	Monthly check-up to observe performance of pumping machine and piping systems.	No observed maintenance except when boreholes stop working
Printing Machines	Depending on usage and number of pages printed, toners, drums, and quality of printout are to be inspected and maintained.	Only when printing stops or quality of printing becomes to poor for use.
Cost and method of Financing maintenance/repairs	From Federal allocation and Internally Generated Funds (IGFs)	Official request should be made indicating with proof observed needs for maintenance/ repairs.	Shortage of Funds from allocations. IGFs either sent to Single Treasury Account (TSA) or embezzled at local level.

Source: National Cereal Research Institute, Badeggi, 2021

4.4   Discussion of Results

The study showed a higher proportion of male respondents (80.67%) more than female respondents (19.33%) which imply that male members of staff of the institute are mostly involved in the maintenance and management of corporate properties in the study area.

With regards to years of experience of the respondents, it was noted that respondents between 10-15 years are more in number which represents 45.83% and was followed by those with the experience between 6-10 years representing 25.00% and then those with experience of 16 years and above which represents 20.83% of the respondents. The implication is that the establishment has enough capable hands in terms of years of experience and educational qualification in which about 50.00% are holders of higher national diploma certificate and first degrees.

Various perspectives have been portrayed by respondents with regards to the state and conditions of corporate public assets of the National Cereals Research Institute (NCRI), Badeggi. It can be noted from Table 4.5 that office building and staff quarters with weighted mean of 4.05 indicates a good condition as noted by respondents. Plate I and

II show the state of office complex and staff quarters of the NCRI which appear to be in good condition as noted by the respondents.

SUMMARY OF FINDINGS

One major challenge confronting developing countries like Nigeria is that of inadequate provision and maintenance of corporate public assets. The poor/ deplorable state of public assets in public corporate organizations has worsened and is usually linked to inadequate and inefficient management culture of available infrastructure and facilities needed for efficient running of public corporate organization.

Most facilities in the National Cereals Research Institute, Badeggi are performing below specification and many of them have lost their economic value. These corporate assets range from office facilities, buildings, research facilities, central service laboratories, farm implement, source of power supply and roads. Despite the fact that appropriate departments exist to monitor and maintain these facilities, the observed state of these assets indicates the need for the assessment of how these corporate assets are managed in the institute.

CONCLUSION

If the mandate of the National Cereals Research Institute (NCRI) Badeggi must be achieved, especially in an era where Nigeria is encumbered with the burden of economic crisis, the issue of food security must be given utmost attention.

Conclusively, adequate maintenance culture can be achieved by engaging the services of public assets managers (either in-sourced or out-sourced) for the management of these assets and they can be held accountable for their operational state. This will help to makes public assets management sustainable so that the mandate of the institute can actualized.

RECOMMENDATIONS

Based on the findings of this study the following are provided:

i.   Introduction of effective monitoring and evaluation scheme with regards to the assets/ properties of the institute. This scheme is continuously implemented can monitor the performance of these property assets and how it impacts the purpose of its procurement. This will ensure that these properties attain their stipulated life cycle.

ii.   Adequate allocation of fund for their maintenance.

iii.   Good quality of infrastructure. The government and stakeholders must have the political will to insist that the infrastructure delivery of the institute is provided according to specification. This involves engineering, procurement, construction, installation and commissioning.

iv.   Development of technical know-how on how to maintain and manage the procured properties.

v.   Instilling the spirit of patriotism and ownership. Most Nigerians regard public properties as no man's property. This attitude is born out of absence of patriotism and lack of commitment for common national growth and development. For this public properties to be useful and sustained, must be encouraged to adopted nationalistic approach with regards to the properties of the institute.

REFERENCES

Abdi, M. R., Labib, A. W., Edalat, F. D., &Abdi, A. (2018).*Integrated Reconfigurable Manufacturing Systems and Smart Value Chain*.SPRINGER INTERNATIONAL PU.

Abdullah, S., & Razak, A. A. (2011). The characteristics of real estate assets management practice in the Malaysian Federal Government. *Journal of Corporate Real Estate*.

Abdullah, S., Razak, A. A., Hanafi, M. H., Pakir, A. H. K., Mabrouk, A. F., & Hassan, S. M. (2012). Towards Implementing Property Asset Management: Assessing current government practices in property management. *The International Journal of Social Sciences*, *4*(1).

Abhayawansa, S., Aleksanyan, M., & Bahtsevanoglou, J. (2015). The use of intellectual capital information by sell-side analysts in company valuation. *Accounting*

and Business Research, *45*(3), 279-306.

Adeyanju, O. D. (2012). An assessment of the impact of corporate social responsibility on Nigerian society: The examples of banking and communication industries. *Universal Journal of Marketing and Business Research*, *1*(1), 17-43.

Adeyemi, R. A., & Muhammed Subhan, M. H. B. J. (2017). The privatization of telecommunications sector in Nigeria: prospects and challenges. *International Journal of Research in Business Economics, and Management*, *1*(1), 1-20.

Akinola, A. B. (2021). PrivatisationProgramme in Nigeria: Issues, Challenges and Prospects in the 21st Century.

Ali, A. S., Chua, S. J. L., & Lim, M. E. L. (2015). The effect of physical environment comfort on employees' performance in office buildings: A case study of three public universities in Malaysia. *Structural Survey*.Amadi-Echendu, J. E. (2021). Definitions and Scope. In *Managing Engineered Assets* (pp. 1-17). Springer, Cham.

Alpert, D. (2014). *The age of oversupply: overcoming the greatest challenge to the global economy*. Penguin.

Backer, M. A. B. M. A., & Yusoff, W. Z. W. (2014). A review of asset management practice in Malaysian local governments. Proceedings of the 25th International Business Information Management Association Conference - Innovation Vision 2020: From Regional Development Sustainability to Global Economic Growth, IBIMA 2015, Pages 3577-3582

Backer, M. A. B. M. A., & Yusoff, W. Z. W. (2014). A review of asset management practice in Malaysian local governments. *Journal article*. Retrieved from: https://www.semanticscholar.org/paper/A-review-of-asset-management-practice-in-Malaysian-Backer-Yusoff/5bd994cdc3290379550cf1d 160f1f303978ccf81. accessed June, 2021

Bertot, J., Estevez, E., &Janowski, T. (2016). Universal and contextualized public services: Digital public service innovation framework. *Government Information Quarterly*, *33*(2), 211-222.

Bharwani, S., & Butt, N. (2012). Challenges for the global hospitality industry: an HR perspective. *Worldwide hospitality and tourism themes*.

Biondi, L., & Lapsley, I. (2014). Accounting, transparency and governance: the heritage assets problem. *Qualitative Research in Accounting & Management*.

Caldecott, B., Clark, A., Koskelo, K., Mulholland, E., & Hickey, C. (2021). Stranded assets: environmental drivers, societal challenges, and supervisory responses. *Annual Review of Environment and Resources*, *46*(1).

Campanaro, A., Masic, J. M., Kaganova, O., Fan, H., & Abdelfattah, H. (2017). Municipal asset management in China's small cities and towns. *World Bank Policy Research Working Paper*, (7997).

Durodola, O. D., & Oloyede, S. A. (2011). Empirical determination of property assets management styles in south-western Nigeria hotels. *Journal of Sustainable Development*, *4*(1), 1-9.

Edwards, C. (2016). Options for Federal Privatization and Reform Lessons from Abroad. *Cato Institute Policy Analysis*, (794).

Edwards, R. (2010). 1 Asset management in the rail and utilities sectors. In *Asset management Whole-life management of physical assets* (pp. 1-26). Thomas Telford Ltd.

Firdauz, A. M., Sapri, M., & Mohammad, I. S. (2015). Facility management knowledge development in Malaysia: Added value in hospitality managerial competency. *Facilities*.

Garbinti, B., Goupille-Lebret, J., &Piketty, T. (2017).Accounting for wealth inequality dynamics: Methods, estimates and simulations for France (1800-2014).

Ibrahim, A. M., Hassanain, M. A., & Al-Hammad, A. M. (2021). Maturity of workplace relocation: a systematic literature review from 1990 to 2020. *Facilities*.

Igwe, K. O. M., & Utebor, J. N. M. (2021). Extent Of Availability And Maintenance Practice Of Office Technologies In Government Parastatals In Ebonyi State, Nigeria.

Iwarere, H. T., & Lawal, K. O. (2011). Performance measures of maintenance of public facilities in Nigeria. *Research Journal of Business Management*, *5*(1), 16-25.

Kaganova, O. (2012). Valuation and pricing of government land and property: a tip of a growing iceberg. *Real Estate Issues*, *37*(1), 9.

Lim, W. W. X., Sulaiman, N., &Baldry, D. (2013).A conceptual framework for understanding the social care facilities management audit (SCFMA) at the residential care home for the elderly (RCHFE) in Malaysia.In *Proceedings of the International Conference on Management, Economics and Finance.Hotel NovotellBorneo, Kota Kinabalu, Sabah, Malaysia* (pp. 112-140).

Michael, A. N., Omole David, O., Peter, A., Babalola Olufemi, D., & Olusoji, M. T. (2012). Appraisal of the state of Health of Residential Building Facilities In a Private University In Nigeria. *International. Journal of engineering Technology and management research*.

National Research Council. (2012). *Predicting outcomes of investments in maintenance and repair of federal facilities*. National Academies Press.

Odediran, S. J., Gbadegesin, J. T., & Babalola, M. O. (2015). Facilities management practices in the Nigerian public universities. *Journal of Facilities Management*, *13*(1), 5-26.Ogohi, D. C. (2014).Analysis of the performance of public enterprises in Nigeria.*European Journal of Business and Management*, *6*(25), 24-32.

Olaseni, M., & Alade, W. (2012). Vision 20: 2020 and the challenges of infrastructural development in Nigeria. *Journal of Sustainable Development*, *5*(2), 63.