The National Inland Waterways Authority and its Contributions to the Development of Inland Waterways in Nigeria, 1997-2014

By

Fidelis Achoba,
and
Muhammed Lawal Shuaibu

Abstract

Inland Waterways were the major highways in the pre-colonial and colonial eras. In the Niger-Delta, they are still the major highways in the socio-political and economic activities of the area. This work focuses on the history of the administrative authorities that had serially managed and controlled the Nigerian inland waterways over the years. The Government Maritime Depatment was established by Britain a month after it declared the north as a protectorate to ensure that the department managed and controlled the inland waterways on her behalf.[i] It inherited the powers exercised by the Royal Niger Company (RNC) on the Niger River before the revocation of the Royal Charter in 1899.This study adopts the use of primary and secondary sources. The primary data include official documents from NIWA, such as Newsletters, ships registries, licenses, vouchers and other relevant materials in the national archives, Kaduna. In addition, in-depth interview with serving and retired staff of NIWA also formed part of primary sources. The secondary sources which include published and unpublished works relating to the study were adequately analyzed for proper interpretation and reconstruction in order to bridge the gap in the historiography of inland waterways.

Keywords: Inland waterways, Nigeria, marine department, Niger River, Royal Niger ompany

1.0. Introduction

This paper discusses National Inland Waterways Authority (NIWA) and the variations that occurred in the management of inland waterways between 1997 and 2014. It focuses on the emergence of NIWA in 1997 as a parastatal and examines its statutory functions with a view to analyzing how different they are from those of its forerunners. This paper further discusses how NIWA administrative structure differs from the defunct Inland Waterways Department (IWD). In addition to this, the paper lays emphasis on the contributions of NIWA to the development of Inland Waterways in Nigeria by examining the dredging of the Inland Waterways and the development of river ports, jetties, and how NIWA contributes to the development of Nigerian economy through revenue generation. NIWA's contributions to the economy since it was established 19 years ago would be assessed based on how it developed the waterways, its components, how it regulates waterborne traffic facilities, and regulates the activities of Inland Waterways Transport (IWT) operators for efficient and effective inland waterways transport services.

2.0. The Emergence of the National Inland Waterways (NIWA)

The establishment of NIWA was the last major attempt by the Nigerian government in post-colonial era to revamp the hitherto

neglected inland waterways system as viable mode of transport. Earlier efforts through the IWD were not sustainable. Unlike GMD and IWD which were respectively organized departmentally in colonial and post-colonial periods, it took an Act of government to establish NIWA as a parastatal with huge responsibilities and some degree of autonomy. The Federal Government took the decision to establish NIWA after observing a steady decline in activities on the waterways as an alternative mode of transport.[ii] As envisioned by the government through Vision 2010 Committee, the establishment of NIWA was to make Nigeria a leader in inland waterways transport development and management in Africa. The Committee, headed by the late Professor Sam Aluko was set up by the former Head of State, late General Sani Abacha on November 19, 1996 with a mandate to develop an economic guideline that could place Nigeria on the path to becoming a developed nation by the year 2010.[iii] Part of the reasons it recommended the establishment of NIWA was for the authority to provide regulatory, economical and operational leadership in the nation's Inland Waterways System and develop infrastructural facilities for an efficient intermodal transport system in line with global best practices that is safe, seamless and affordable.[iv]

However, before NIWA was unveiled, the IWD was officially dissolved and all its assets and liability were transferred

to the newly established authority. The dissolution order among other things mandated that:

- By virtue of the Act that there shall be vested in NIWA immediately at the commencement of the Act, without further assurance, all assets, funds, resources and other moveable and immoveable property which immediately before the commencement of this Act were vested in the department;
- Any proceeding or cause of action pending or existing immediately before the commencement of this Act by or against the department in respect of any rights, interest, obligation or liability of the department may be commenced, continued or enforced by or against the authority as if this Act had not been made;
- Notwithstanding the provision of this Act but subject to such directives as may be issued by the authority, any person who immediately before the commencement of the act held office in the department shall be deemed to have been transferred to the Authority, on terms and conditions not less favourable than those obtaining immediately before the commencement of this Act; and service under the department shall be deemed to be service under the Authority for the purposes of pension;
- Any license, Permit approved, issued or granted or deemed to be issued or granted by the department shall during its duration be deemed for all purposes to be granted by the authority under this Act.[v]

Assets inherited from the IWD by NIWA at the commencement of its operations, and as enumerated by the government in the establishing Act, include:

Buildings, dockyards, lands, office equipment and plants; and 38 boats and ferries, including: B/V Anam, B/V Bajibo, B/V Nembe, B/V Lekki, B/V Numan, M/F Apapa, M/F Calabar, M/F Baro, M/F Yelwa, W/B Jebba, MT Tiga Dam, M/D Yenaka, M/D Itobe, M/D Siama, M/D Obosi, M/D Shetland, M/F Oron, M/F Lokoja, W/B Maroko and W/B Jamata. Others include: M/F Effiat Mbo, M/F Idah, M/F Asaba, M/F Ibi, M/F Yola, M/F New Bussa, M/F Onitsha, M/F Donga M/F Warri, M/T Kainji Dam, B/V Varvil, B/V Cosmos, W/B Yauri, S/V Woodcock, S/V Woodpecker, S/L Woodpegeon, M/L Wagtail and M/L Woodlack.[vi] It also inherited 400 staff quarters from the IWD.[vii] But according to NIWA, what it inherited as take-off asset when it officially began operation on January 1st, 1998 were 10,000 navigable waterways in natural forms with substantial backlog of under investment of over thirty years period, old office buildings, ferry terminal in disrepair, uncompleted river ports at Onitsha, immobile and old fleet of rivers crafts and boats, dilapidated and under equipped workshops, dilapidated staff quarters, few old vehicles, backlog of staff allowances, shallow access channels and dockyards. NIWA also had modern inland ports in Baro, Oguta and Lokoja that were under construction, while the

Onitsha port which it inherited from IWD had been rehabilitated by the government.

Some of the vessels inherited from the IWD by NIWA at Lokoja Dockyard.

Source: ***Fieldwork on 03/12/2015***

2.1. NIWA Administrative Structure

NIWA is under the supervisory responsibility of the Federal Ministry of Transport and a Board of Directors. The Ministry supervises and coordinates the activities of NIWA as well as formulates policies, strategies and regulations for implementation by the Authority.[viii] Long before the establishment of NIWA the Ministry had played these roles in the development of transport in Nigeria. The ministry played supervisory functions not just for

Inland Waterways alone but for the Nigerian Railways, Nigerian Port Authority, Nigerian National Shipping Line, National Cargo Handling Company, National Freight Company and the Central Water Transport Company.[ix] NIWA reports to the Ministry through the Board of Directors.[x]

The Board of Directors is responsible for the monitoring and evaluation of NIWA's operational, financial, administrative and economic programmes, policies and targets in line with NIWA's mandate. The Board of Directors is constituted every three years by the President. The board consists of the Chairman, the Managing Director, one representative of the Federal Ministry of Transport, one representative of the National Planning Commission, one representative of the Federal Ministry of Water Resources and one representative each of the following bodies to be appointed by the Minister – (i) Council for the Regulation of Engineering Profession in Nigeria; (ii) the Surveyors Council of Nigeria; (iii) the Master Mariners; (iv) the National Association of Chambers of Commerce, Industry, Mines and Agriculture; (v) the Nigerian Port Authority; and (vi) one person to represent public interest to be appointed by the Minister.[xi]Other guidelines and regulations for the establishment and composition of the Board of NIWA as contained in CAP. N47 include:

- Subject to the provision of the NIWA Act, a person appointed to be member of the Board, not being a public officer, shall hold office for a period of three years from the date of his appointment and shall be eligible for reappointment for one further period of three years.

- Any member, not being a public officer, may resign his appointment by a resignation letter addressed to the Minister.

- Members of the Board shall be remunerated with approval of the Minister, as are in line with similar government statutory bodies.

- Termination of Board membership where – (a) it appears to the Minister that a member of the Board should be removed from office on grounds of misconduct or inability to perform the functions of his office; (b) the Minister is satisfied that the continued presence on the Board of any member is not in the national interest or interest of NIWA, the Minister shall make a recommendation to that effect to the president which if approved shall empower the Minister to declare, in writing, the office of that member vacant.[xii]

- Frequency of Board attendance – (a) there shall be four Board meetings in one calendar year; (b) any member who is absent from two consecutive ordinary meetings of the Board shall file his explanations in writing with the secretary for consideration by the Board and where the explanation is unacceptable to the Board the Board may recommend to the Minister that the member be removed,

> And the Minister may declare in writing, such a removal.[xiii]

The administration of NIWA is headed by the Managing Director/Chief Executive Officer (MD/CEO) appointed by the President of the Federal Republic of Nigeria. He/She runs the affairs of the Authority and implements policies as regard the Nigerian inland waterways. The MD/CEO specifically, is charged with the management of material resources and assignment of corporate objectives on a day-to-day basis and in line with goals set by the Board of Directors. The MD/CEO is assisted by ten General Managers and two heads of units. The Departments headed by the General Managers are: Administration, Finance and Accounts, Research, Planning, Environment, Engineering Services, Marine Engineering Services, Survey, Legal, Procurement, Zonal Offices, Corporate Affairs and Audit.[xiv]

NIWA has 13 area offices that are headed by Area Managers,[xv] and a liaison office in Abuja. The Area Managers are assisted by Units Heads. The Units Heads are answerable to the General Manager Administration/Company Secretary.[xvi]

It is contained in the establishing Act that the MD/CEO who is appointed based on the recommendation of the Minister should hold office for four years from the date of appointment, and

might be eligible for second term reappointment depending on the satisfaction of the government on his/her performances. Also, the MD/CEO can be removed by the President for misconduct or none performance based on recommendation by the Minister.[xvii]

2.2. Functions of NIWA

The establishment of NIWA was for the development and management of the Nigerian Inland Waterways System as an alternative mode of transport.[xviii] It is mandated, to amongst other things, oversee the operational and regulatory functions of all activities pertaining to the Nigerian inland waterways.[xix] NIWA's establishment is to help the government in reducing the problems of inadequate provision of transport infrastructures and services; and over reliance on one mode of transport.[xx] In addition, the Act establishing NIWA empowers it to carry out the following responsibilities among other:

- Provide regulations, enforcement and controls for inland waterways and navigation;
- Ensure the development of infrastructural facilities for a national inland waterways network, connecting the creeks and the rivers with economic centres of the country using the river ports, jetties, and terminals as nodal points for major intermodal exchange; and
- Ensure the development of indigenous technology and management skills to meet the challenges of inland water transport.[xxi]
- Undertake capital and maintenance dredging;

- Undertake hydrological and hydrographical surveys;
- Designs ferry routes;
- Survey, remove, and receive derelicts, wrecks and other obstructions from inland waterways system;
- Operate ferry services within the inland waterways systems;
- Undertake installation and maintenance of lights; buoys and all navigational aids along water channels and banks;
- Issue and control licences for inland navigation, jetties, dockyards;
- Provide hydraulic structures for rivers and dams, bed and banks stabilisation and barrages.
- Collect river tolls;
- Advise government on all border matters that relate to the inland waterways;
- Execute the objectives of National Transport Policy as they concern inland waterways.[xxii]

Aside the functions it was set out to perform by the government, NIWA's jurisdiction is quite wider than those of its forerunners who were only mandated to mount buoys, clear hyacinths and carrying out other minor services on the inland waterways. NIWA has total control over all navigable inland waterways, river-ports and internal waters of Nigeria.[xxiii]

Buoys at the Marine Workshop in Lokoja

Source: ***Fieldwork on 03/12/2015***

In line with its powers, NIWA, with the approval of the Minister makes binding rules and regulations for dues, rate and charges on ferry fares and tariffs, berthing, boat licenses, river guide, harbour, use of warehouses, sale of sand, ground rents, sale of hydrological year book, sale of hydrological data, sale of hydrological chart and river maps, sand search, dredging permit, piers licenses, examinations, re-certification, operator licenses, survey for river crafts, slipway and dockyard services and the use of dockyard and river ports.[xxiv]

According to the Act, whoeverwilfully or negligently and without the consent of NIWA (a) uses the area of the land along the waterfront measured 100 metres perpendicular from the edge of both banks; (b) obstruct the waterways with rafts, nets, logs, cask of oil, dredgers, badges, pipelines, pylons, bridges; (c) takes

sand, gravel or stones from the waterways by manual, hydraulic or mechanical means; (d) erects or operates permanent structure of any kind such as gauges, jetties, piers, wharfs, slipway, or mobile dry-ducks within the waterways; (d) diverts water from the waterways either through suction or canalization methods; (f) performs hydrographic surveys, seismic surveys, drilling, blasting, underwater engineering works within the waterways; (g) erects pylon, electricity and telephones or telegraphic cables within or across the right of way of the waterways; (h) operates river crafts within inland waterways; (i) damages or tampers with the structures of the Authority, including gauges, buoys, kilometre buoys, navigation aids, horizontal and vertical control marks, is guilty of an offence under the NIWA establishing Act.[xxv]

Individuals who violate NIWA's regulation according to the Act is liable on conviction to a fine not exceeding N50, 000 or to imprisonment for a period of six months or to both; and where the offender is a firm or a corporate body, it shall be liable upon conviction to a fine of N200, 000.[xxvi]NIWA had no machinery to enforce its regulations until 2002 when the Federal Government under the Civilian Administration of Chief Olusegun Obasanjo approved the Marine and Inland Waterways Police Command at the Authority headquarters in Lokoja. Other operational offices of the Command which was officially

commissioned in 2003 are in Lokoja, Lagos, Port Harcourt and Warri Area Offices.[xxvii] The Marine and the Inland Waterways Police have different functions. The Marine Police major responsibility is policing to make the inland waterways save from piracy, while the Inland Waterways Police protect NIWA in its revenue generating drive and prosecute inland waterways offenders on behalf of the Authority. The Command is headed by an assistant commissioner of police.[xxviii]

Marine Police Patrol Vessel at NIWA Area Office in Lokoja

Source: ***Fieldwork on 03/12/2015***

It is observed that most of the MDs appointed for NIWA since it was established in 1997 lacked expertise in inland waterways management. This lack of technical knowhow in the management of NIWA has been pointed out to be responsible for the authority's inability to administer and put the inland

waterways properly as a viable mode of transport. However, it was the move towards making the Nigerian Inland Waterways more developed and improved modes of transport that made the government of Nigeria to upgrade the IWD from a department to a fully fledged parastatal as NIWA. This upgrade and the decentralization of powers (implementing policies on inland waterways) that hitherto belonged to the Federal Ministry of Transport (FMT) added new roles and responsibilities to NIWA than those its forerunners were charged to carry out. Unlike its predecessor, NIWA is virtually autonomous of the Federal Ministry of Transport. The Ministry only formulates policies on inland waterways development for NIWA to implement, and on seasonal basis it supervises how it implements them.[xxix]

3.0. The Contribution of NIWA to the Development of Inland Waterways in Nigeria

(a) *Dredging*

Since the colonial period, the inland waterways, particularly river Niger as it flows from Baro to Warri had never undergone capital dredging by the government at a time. Dredging means the process that involves the evacuation of water beds to remove sediments, pollutants and other materials aimed at achieving adequate depth and width for navigation and other marine activities.[xxx] The closest attempt to dredge the Niger from Baro to the Atlantic Ocean by any government in Nigeria was made

through the Petroleum Special Trust Fund (PTF) of the administration of General Sanni Abacha in 1996. The PTF which was headed by Retired Major General Muhammadu Buhari awarded the contract for N8, 570, 768, 673.27 to six contractors, but only the initial payment of N2, 034,586,412.20 was made to them.[xxxi] The companies claimed to have mobilized to site but achieved practically nothing; they took the advantage of the dissolution of PTF by President Olusegun Obasanjo in 1999 to finally abandon the project. It took the government 10 years after the contract was awarded to recover its money through the Economic and Financial Crimes Commission (EFCC) in 2006.[xxxii]

A review of the contract amounting to N14billion was conducted under President Olusegun Obasanjo by Haskoning (Nig) Limited, but it was again abandoned by the Federal Government.[xxxiii] The dredging issue was never laid to rest because it was part of NIWA's cardinal objectives of providing efficient and safe inland transport for Nigerians. Through the authority's effort, the contract for the capital dredging of the Niger from Warri to Baro was again approved by the Federal Executive Council (FEC) on March 1st 2006.[xxxiv] The Obasanjo administration could not sign the contract papers and mobilize the contractors because the government only announced an appropriation of N20billion for the development of inland

waterways in that fiscal year. The contract sum which was N30billion was one of the single biggest public sector works being undertaken by the Federal Government in that year. The government could not fund the project in 2006 and left it unexecuted.[xxxv]

The abandoned project was revisited by President Umar Musa Yar'adua who flagged off the capital dredging of the Lower River Niger on September 10th, 2009 in Lokoja.[xxxvi] The contract was meant to serve as solution to the problems that made the use of the inland waterways as a mode of transport to diminish in the last eight decades. The problems of inland waterways identified in the *National Transport Policy* include:

- High rate of sediment build up along the channel.
- Physical obstruction (wrecks, rocky outcrop etc.)
- Poor government investment in infrastructure development.
- Inadequate river Port infrastructure.
- Poor landward connection to River Ports.
- Poor communication and navigational aids.[xxxvii]

Before the contract was revisited by Yar'adua, thorny issues like the fear of negative environmental impacts of dredging on riverine communities which also delayed the execution of the dredging project during the administration of Obasanjo was addressed by the government. The project began immediately when the fear was allayed by the Federal Government through

the conclusion and publication of the Environmental Impact Assessment (EIA) Report.[xxxviii] Along the River Niger course from Baro in Niger State to Warri in Delta State - a total stretch of 572km - the river passes through eight states namely: Niger, Kogi, Anambra, Edo, Delta, Imo, Rivers and Bayelsa states. The dredging would therefore affect no fewer than 510 rural communities in the eight states of the federation.[xxxix]

The contract for the capital dredging of the river was earlier awarded to five contractors on December 1st 2008 for N36billion and N1billion was granted by the Federal Government for consultancy services. The dredging project from Baro to Warri were divided into five lots which include, (1) Warri to Bifurcation of Forcados and River Nun, (2) Bifurcation of Forcados and River Nun to Onitsha, (3) Onitsha to Idah, (4) Idah to Lokoja, and (5) Lokoja to Baro. The contract was funded from the Port Development Surcharge Account (Reservation) and Budgetary Appropriation. The capital dredging was for one year while the maintenance dredging was for two years. The two-year maintenance dredging was as a means of ensuring all year round navigability of the river channels.[xl]

The Orashi River from Oguta (Imo State) to Degema (River State) was awarded for N2, 028,600,000.00 to Simidia International Company Ltd by the Federal Government in 2010 to serve as navigational link between the Oguta Lake and the

River Niger. Also the sweeping of Ogun - Ondo Waterway was awarded in 2010 for N145, 862,500.00 to Oil Response Nig. Ltd. The contract was awarded by the government in order to create inland water network in almost 28 states of the country so that Inland Waterways Transport could be a viable alternative to other modes of transport in Nigeria.[xli]

The dredging project as envisioned by the Yar'adua's administration would not only help to awaken dormant economic potentials in the inland shipping maritime subsector, it would also help to deliver heavy cargo from the roads to the inland waterways. The administration's Minister of Transport, Alhaji Ibrahim Isa Bio, agreed that the project would significantly reposition the water transport sector to play its role as a catalyst to Nigeria's economic growth and development.[xlii] Some major benefits of waterborne transport include:

- Intermodal coordination and complementary modal transport relationship thereby providing mobility for all.
- Reducing undue pressure on a particular mode of transportation.
- Relatively safe with low accident rate or frequency and more importantly environmentally friendly.
- It is cheap, requiring lower operating cost as there is no wear and tear of the waterways demanding perennial high maintenance cost.

- Encourages economies of scales and positive impact on commerce and industry. Water crafts can haul heavy goods over longer distances with the inbuilt bigger haulage capacity and at the cheapest comparative economic cost. The overall cheapness therefore translates into better economies of scales in the production and distribution of goods for the country.
- Rapid transformation of the Nigerian economy into a globally competitive one because the naturally endowed enormous resources widely distributed in the country would not only be exploited and utilized for industrial growth but would create jobs in the hinterland which have largely been inaccessible owing to transport and other difficulties.
- National unity would be enhanced as the waterways transverse 28 states of the country.[xliii]
- Decongestion of sea/coastal ports.
- Agriculture (irrigation and large scale farming); aqua-culture (large scale fish farming); tourism; solid minerals prospecting; oil field services; domestic water supply, etc.[xliv]

However, NIWA had claimed that the authority was beginning to reap the actual benefit of the dredging of River Niger from Baro to Warri as traffic activities on the Niger were beginning to improve tremendously. Available data from NIWA on Inland Waterways Transport (IWT) explain that volume of cargo conveyed on the Niger moved from 2.9 million metric tons in

2011 to 4.03 million metric tons in 2012. Also in the same period, number of passengers that travelled via the inland waterways moved from 250,000 to 1,308,864.[xlv]

4.0. Development of River Ports

Inland port is partly an enclosed water area for crafts seeking protection from current or accommodation for transferring of cargo, taking of fuel, making repairs, or obtaining supplies. The partially enclosed area is protected from storms and waves by natural configuration of the land, it is called a natural harbour.[xlvi] This type of port is not on Nigerian inland waterways. What is obtainable in Nigeria, as represented in the Onitsha Port, is a commercial harbour which has docking facilities consisting of piers, wharves and quays at which vessels berth while loading or discharging cargo.[xlvii]

The idea to develop commercial river ports was first conceived in Nigeria under the civilian administration of Alhaji Shehu Usman Aliyu Shagari when the Federal Government of Nigeria in the 4th National Development Plan of 1981 to 1984 laid emphasis on the development of Inland Waterways and its components. As part of the plans, consultancy services were performed in the period by multinational companies and proposals were made for the building of Baro, Lokoja, Idah, Ajaokuta, Onitsha, Oguta, Nembe, Ibi, Makurdi, Yola and Yelwa ports.[xlviii] The idea was abandoned and the proposals were kept in

the government shelves. Only Ajaokuta and Onitsha ports were built by the Federal Government in 1982 and commissioned by Alhaji Shehu Shagari in 1983. Since commissioning, the Onitsha and Ajaokuta ports were seldom put to use by the government; they remained underutilized.[xlix]

However, it took Alhaji Umar Musa Yar'adua with his capital dredging project to rejuvenate the abandoned idea of building inland ports on major banks of the Niger and Benue Rivers by Shagari and other successive administrations because ports are major components needed on developed inland waterways systems – they complete waterborne navigational cycle. Therefore, the consultancy services conducted for the Federal Government by multinational companies like Royal Haskoning and NEDECO were taken off the shelves and reexamined, and where the government was satisfied it adopted some of the proposals and got the formal agreement for the rehabilitation of Onitsha and construction of Baro, Lokoja and Oguta ports signed out to some construction companies with expertise in port development and management.[l]

4.1. Onitsha Port

The contract to rehabilitate Onitsha port complex which was built earlier by Shagari's administration was awarded on December 1st, 2009 to Messr Inter Bau Construction Ltd for N4,

182,968,895.64.[li] The rehabilitation was necessary because NIWA observed that the Onitsha Port had limited infrastructures to accommodate bigger vessels and cargo. It was built originally to serve the local hinterland. NIWA also observed that critical facilities in the port had suffered massive vandalism due to years of neglect, underutilization and disrepair in the hands of the government.[lii] NIWA's observation on the port was complemented by Royal Haskoning, a consultant to the Federal Government on Inland Waterways, that: "The Onitsha Port has three rail mounted slewing cranes on the quay with a lifting capacity of 15 tonnes each. The cranes have hardly been used, and would require repairs prior to any cargo handling operations."[liii]

Onitsha port was completed and commissioned on August 30, 2012 by President Goodluck Ebele Jonathan.[liv] The port now has high capacity to accommodate bigger vessels and cargo. It has a port operations building, quays for big barges, fuel station, 150mm diameter borehole, 20 staff quarters, a warehouse with capacity to contain 3000 containers, etc.[lv]

Onitsha River Port at Glance

Source: Collected from Federal Ministry of Transport, Abuja on 30/11/2015

ii Ajaokuta Port

The story of Ajaokuta Port was entirely different. Unlike Onitsha Port, it was not entirely overhauled. The idea to build the port was developed as a result of the decision of the Federal Government to establish an iron and steel mill north of Ajaokuta with an ultimate capacity of five million tons of steel per annum. To serve the steel mill and associated light industries a new town was constructed in phases, with an initial estimated population of 175, 000, to grow to some 400, 000 in 1990 and to reach 600, 000 inhabitants by the year 2000.[lvi]

The port was therefore built to perform auxiliary functions for the Ajaokuta Steel Company, vis-a-vis aiding the company to convey steel, staff and residents from one place to

the other. However, the Ajaokuta port had never been used thereafter as the steel mill was not put into operation yet. Nevertheless, its concession was granted to Mittal Steel Company by the Nigerian government in 2010; and it was expected that with that development the port would be used for unloading and loading of steel mill related cargoes.[lvii] Before the concession agreement was reached, the quays were in reasonable good condition and would require limited repairs to allow cargo handling operations. Since the concession agreement was signed, there had been no much navigational activities on the port except Union Tiles Company Nigeria Limited and West African Ceramic Nigeria Limited that used it for cargo movement between Ajaokuta and Onitsha.[lviii]

4.2. Lokoja Port

Lokoja, despite being located on the confluence of the Niger-Benue River had no port with modern equipments that could accommodate activities of great navigational proportion. What existed were vestiges of colonial jetties that were used by local canoemen and traders. The plan to build port in Lokoja was first worked out in 2001 by Chief Olusegun Obasanjo's administration when it awarded contract to Royal Haskoning to prepare a tender design for the new inland port to be built. The

design forwarded to the government through NIWA included the following key facilities:

- Access road of some 1.8km connecting the port with main road.
- Port area of some 250m by 250m at a level of about 10m above the lowest water levels.
- A quay wall with a length of some 150m capable of handling two badges
- A number of warehouses and admin/management buildings.[lix]

In 2003 NIWA requested Royal Haskoning to review the selection of a site for the Lokoja port and in the process four sites, namely: (a) the existing NIWA dockyard, (b) South of Mimi River, (c) Banda village, and (d) Jamata near the Murtala Bridge were assessed. Eventually the Banda site was selected as the most suitable for developing the Lokoja Port. The Banda site is located in a rural area with a nearby small village, whose people would be partly affected by the construction of the port.[lx] The site had ample space for future expansions and had easy connection to the road network. There was no other infrastructure that could interfere with the planned port infrastructure. Soil conditions were favourable as was confirmed by the result of a later soil investigation programme. Also, the navigational channel of the site area was reasonable stable with limited erosion.[lxi]

The Banda site is located and at a distance of approximately 1.5km from the Lokoja-Abuja trunk road. For the site, no safety and congestion issues were envisaged. Trucks transporting cargoes to and from the trunk road would not need to pass through the city of Lokoja en route to Abuja. An invitation to tender based on the design was launched in June 2004, and Royal Haskoning, the consultancy company that made the Tender Evaluation Report in November 2004 recommended Foby Engineering as the preferred contractor.[lxii]

The Lokoja Port Development Project was then awarded in January 2007 to Foby Engineering Company Limited for N2.3billion by the Olusegun Obasanjo's administration. The construction works were estimated to take about 16 to 18 months, but Foby could not deliver in 2009 as expected by the Federal Government. The contract was revoked due to delay in execution by the contractor and was re-awarded for N4.112billion to Messrs Inter Bau Construction Limited in September 2012; and it was expected by the Federal Government to be completed in December 2013.[lxiii] Works on the site could not continue because NIWA was sued by Foby Engineering for breach of contract; NIWA had to move to another site in Jamata, near the Murtala Mohammed Bridge, due to stay of Execution Order by an Abuja Federal High Court in 2012.[lxiv]

Works by Inter Bau Construction commenced in 2012 but the company was yet to complete the construction of the port. Visiting the port site at Jamata near the Murtala Bridge in June 2014, NIWA Managing Director, Hajiya Maryam Inna Ciroma expressed dissatisfaction with the slow pace of work being carried out by the contractor. She urged the company to expedite action on the project as the government could no longer wait to reap the benefits that were derived from the usage of inland ports.[lxv]

However, work on the port was finally abandoned by the construction company in December 2014. Construction equipments at the site were outgrown by grasses as evidence that they had not used them for construction on the site for a long time. A lonely security guard at the site conferred in this researcher that they had not been paid by the construction company since December 2014.[lxvi] NIWA official confirmed that the abandonment of the project was due to delay in payment to the contractors by the Federal Government.[lxvii]

Lokoja River Port Construction Site at Jamata.

Source: ***Fieldwork on 04/12/2015***

4.3. Baro Port

Modern Baro inland port development began in 2002 when the Federal Government felt that the agricultural potential of the north was better harnessed if the port was built to transport agricultural produce and form part of an integral intermodal transport system where the air, the inland waterways, the road and the rail are linked for effective and efficient services. The idea was to bring back the fortunes of the past when the northern region was the agricultural hub centre of the country; and Baro port, though without modern facilities was used in transporting agricultural good from the rural areas to the railway terminus in Baro as from 1912.[lxviii]

Unlike Lokoja, locating a site for Baro port did not pose any problem to the Royal Haskoning Consultants. The selected site by the consultants was located along one of the side branches of the Niger River. The side branches needed to be dredged to provide an adequate access channel to the port. The proposed site offered good space for port facilities and is directly located nearby the existing railway line connecting Baro to Minna and Kaduna. However, railway operations ceased some 17 years ago; and the roads leading to Baro were bad. The ports and roads needed to be improved to develop Baro as a regional hub for the transit of agricultural products.[lxix]

However, the proposal for the construction of Baro Port was abandoned by the Obasanjo administration. It was President Umar Musa Yar'adua who awarded the contract for the construction of inland river port and auxiliary facilities at Baro Niger State on October 27, 2009 to William Lloyds Company for N3, 563, 449, 248.00 based on the Tender Evaluation Report tendered in November 2004 by Royal Haskoning Consultants recommending William Lloyds Company as the preferred contractor.[lxx] Like the Lokoja Port, it was expected that the Baro Port had almost the same facilities as Lokoja Port. But it was being constructed primarily for agricultural and agro-allied cargo; the facilities expected on completion were expected to

handle loaded and unloaded agricultural bulk and general cargo in the tone of a million tons.[lxxi]

Works on the Baro Port as agreed with NIWA by the construction company was supposed to be delivered in 2011 but the contractor could not complete the project as expected. The Managing Director of NIWA Hajiya Inna Ciroma who expressed displeasure with the contractors confirmed in December 2014 that of all the ports that were under construction, only the Onitsha port was completed for usage.[lxxii] The major problem of the port was access road which the residents complained about in 2014. Access road construction was not part of the contract awarded by Yar'adua to the contractor in 2009. The complaints by the Baro residents on the port project are captured succinctly below by the Daily Trust Newspapers.

> The roads leading to Baro from anywhere are very bad. They were last maintained in the colonial period. How can you operate a river port without access roads? During the colonial era, we had a functional river port in Baro with access road and rail line. Over 50 years since the British colonialists left, no government cared to maintain those infrastructures. The terrible road you came through, you know how many times you had to jump from the pick-up van that brought you and pushed it before getting here. This is the best we have in the past 30 years. Even this one was courtesy of William Lloyds Company, the contractor for the port project. They graded the road when they were bringing their equipment. Baro is certainly a port that may not function in our time.[lxxiii]

In June 2014, the Senate Committee Chairman on Marine Transport, Hajiya Zainab Kure urged the government of Goodluck Ebele Jonathan to construct access road to the Baro river Port as it was necessary if the port was to be operated upon completion. She lamented why the port was yet to be completed even when the National Assembly had made appropriation on the project twice.[lxxiv] Like the Lokoja port, the Baro port project could not be completed due to delay in payment by the federal government, William Lloyds Company official claimed that the government was breaching the contract by not disbursing funds to the contractor on time to enable them complete the project as agreed. NIWA official confirm this claim that since the end of 2014 fiscal year, contractors in charge of constructing Lokoja, Baro and Oguta ports were not paid by the government.[lxxv]

4.4. Oguta Lake Port

Like the other ports, the Oguta Inland Water Development Project as observed from available data, had its own peculiar problems; the delay in the award of the contract for the development of the project despite its potential benefit to the transport sector and the Nigeria economy was due to the indecision of the Federal Government as it concerned implementing policies on Inland Waterways System since the beginning of this century.

In 2001, Scott Amede Engineering and Power Supply Limited proposed a Build, Operate and Transfer (BOT) model for Oguta Inland Port to the Federal Government under the Obasanjo's Regime but was rejected. Rather than a BOT model, the government decided to fund the construction and advertised the project for public bidding. Scott Amede Engineering and Power Supply Limited, an indigenous company bid twice but was not awarded the contract until on the third occasion in 2009 when the government finally conceded the port building project to the company for N2.74 billion.[lxxvi] The contract was limited to construction of the port buildings and quay structure only. It did not include installation of cranes and other cargo loaded and unloaded equipments. The port development project had been hampered by poor funding from government. Approximately N1.5 billion of the original contract amount (N2.74) had been utilized on the project.[lxxvii]

In September 2012, President Goodluck Jonathan approved a contract revalidation for Scott Amede Engineering and Power Supply Ltd, increasing the original contract amount from N2.74 billion to N4.0 billion.[lxxviii] This leaves approximately N2.5 billion to complete the port building and quay structure; about N1.5 billion for cranes and equipment; and another N1.5 billion for container barges. The contract was due to be delivered in June 2013 but the contractor could not meet up

as expected in the contract agreement with the Federal Government. The contractor complained that a total sum of N7.1 billion funding was required for the project.[lxxix]

NIWA official confirmed that poor funding had been the problem hindering the progress of all the inland ports undergoing construction in Nigeria. In 2014, only N32million was appropriated for the Oguta project; the appropriation was paltry compare to the huge amount needed to complete the project. Until the funding project was addressed, the Oguta Port Development project, which NIWA claimed was 75 percent complete, might never see the light of the day.[lxxx]

5.0. Jetties

Jetty is any of a variety of engineering structures connected with river, harbour, and coastal works designed to influence the current or tide or to protect a harbour or beach from waves (breakwater).[lxxxi] It is simply a wall built out from the shore of a river to control the flow of water.[lxxxii]The two principal kinds of jetties are those constructed at river mouths and other coastal entrances and those used for the berthing of ships in harbours and offshore where harbour facilities are not available.[lxxxiii]

The jetties that are found on the Nigerian Inland Waterways are those used for the berthing of small barges and ferries, they were built by NIWA as makeshift ports in order to

aid transport in riverine areas. However, jetties with modern facilities became commonplace on our waterways as from 2010 when it became necessary that they should be built along with the dredging of the Lower River Niger as components for effective and efficient navigation.[lxxxiv] Until the Lokoja Jetty was built and commissioned in 2002 by Ojo Madueke, the Minister of Transport under Chief Olusegun Obasanjo's Administration, jetties were mere slabs hoisted by the locals for the berthing of their boats and canoes.[lxxxv] But between 2010 and 2014 the government had built six jetties in Yenagoa I and II; Igbokoda, Ondo State; Burutu Benue State; Pategi, Kwara State and Ogbia Bayelsa State. While nine other jetties are undergoing construction by the government in Kaduna; Okirika, Ogoloma, Rivers State; Degema, Rivers State; Idah, Kogi State; Agenebode, Edo State; Yelwa-Yauri, Kebbi State; Ogurugu, Enugu State; Pategi II, Kwara State and Owerinta, Imo State.[lxxxvi]

Contracts of Jetties and Ramps Built by the FG between 2010 and 2014

SN	Contract	Contractor	Contract Amount
1	Yenagoa Jetty I	William Lloyds Tech. Company Ltd	272,247,849.10
2	Yenagoa Jetty II	Combined Building Services Limited	1,311,636,134.50
3	Owerrinta Jetty, Imo State	Williams Lloyds Tech Company Ltd	402,525,179.00
4	Ogbia Jetty, Bayelsa State	Trenur Nig. Ltd	90,025,000.00
5	Agenebode Jetty, Edo State	E-Sekron Nig. Ltd	N146,269,247.55
6	Idah Jetty, Kogi State	Tee-Pama (Nig.) Ltd	N474,529,510.00
7	Burutu Jetty, Benue State,	Midax Consort Ltd	N99,018,700.20
8	Pategi Jetty, Kwara State	IHB Ltd	N99,270,921.00
9	Pategi II, Kwara State	IHB Ltd	N14,250,000.00
10	Kaduna Slipway, Kaduna State	Kashnur (Nig.) Ltd	N29,840,280.00
11	Igbokoda Jetty, Ondo State	Soject Nig. Ltd	N85,500,000.00
12	Ogurugu Jetty, Enugu State	Royal Projects Ltd	N85,272,311.25
13	Okrika Jetty, Rivers	State Johnmostainless (Nig.) Ltd	N438,000,000.00
14	Degema Jetty, Rivers State	COT Engineering Ltd	N490,962,598.05
15	Yelwa-Yauri Jetty, Kebbi State	Faranab Investment Ltd	N120,708,866.25

Source: ***Inland Waterways Division Federal Ministry of Transport Abuja***

Like the ports, poor funding was the reason most of the jetties were not completed as expected by NIWA.[lxxxvii] However, captains and boatmen at Umaisha, Burutu and Lokoja were delighted that the emergence of jetties on the Benue and Niger Rivers had made berthing of their boats easier than before when berthing rope had to be thrown out from the boat for somebody on the shore to dock before passengers could alight from the boat.[lxxxviii]

Lokoja Jetty, built and commissioned in 2002 by the FG

Source: Fieldwork on 03/12/2015

5.1. Revenue Generation

The Act that established NIWA in 1997 did not make it solely as a revenue generating Authority but as a developer and regulator of the Nigerian Inland Waterways System. However, apart from getting yearly grant from the government for its running

expenses, the functions assigned to NIWA by the Federal Act have entrenched in it the power to establish another fund which shall consist of such sums as may be collected or received by the Authority by way of dues, rates and taxes; and such sums as may be collected or received by the Authority from other sources either in respect of any property vested in the Authority or otherwise howsoever.[lxxxix]

This power has invariably made NIWA a revenue generating agency of government. The internally generated revenue of the agency as observed since 2009 were derived from dues, rates and taxes it collected from individuals and corporate organizations on the use of the inland waterways, NIWA facilities and services it renders. Specifically, NIWA revenue is derived from dues on dredging, ferry services, dockyard, water usage, rent of its facilities, harbour, advert and navigation on the right of way, utility, sale of river guide, etc.[xc]Also of all the revenue generating sub-heads, navigation on the inland waterways in the last five years had accounted for the highest income generated by NIWA. What it means is that if the Nigerian Inland Waterways System is well developed and managed by the government it could compete favourably with other modes of transport in revenue generation for the government.[xci] The inland waterways revenue generation was hampered because it was underutilized. Full utilization meant

more revenue for the government; that could only be achieved when the inland ports were built completely and put into use.[xcii] It was the same reason (underutilization) that the impact of the dredged River Niger was slightly felt in terms of revenue generation. Revenue figure only moved from N1.2billion in 2010 when the dredging began to N1.4billion in 2013 when the project officially ended.[xciii]

Inland waterways revenue in the southern part of Nigeria was higher than that generated in northern Nigeria due to low patronage of the waterways in the north. The completion of Lokoja and Baro ports might put an end to waterborne transport apathy in northern Nigeria. The benefits of complete water transport system would definitely lure the people to that mode of transport.[xciv]

From the revenue distributions as shown in Tables 4.3 and 4.4 above, it is clear that NIWA had in the last six years contributed N7, 114,789,321.92 to the national coffer. It could be postulated that if NIWA was well financed to manage the Inland Waterways Systems, the authority would accrue more revenue to the federal account than it had done in the last six years even with dwindling appropriation and actual funds released to it by the Federal Government.

Budgetary allocation to NIWA by the Federal government since 2011 explains that the government had

lackadaisical attitude towards the authority and the development of the Inland Waterways System as a viable alternative to other modes of transport. Analysis of funds released to NIWA from 2011 to 2014 showed a continuous decline in appropriation to the Authority by the Federal Government. From N10billion in 2011, it reduced to N3.8billion in just four years in 2014, making NIWA to abandon its major responsibilities like ferry and other corporate social services.[xcv]

6.0. Conclusion

The National Inland Waterways Authority (NIWA) apart from having far-reaching responsibilities is entirely different from the Authorities that preceded it in terms of power and organizational structures. While its forerunners were mere ministerial departments with simple responsibilities like distribution of creek mails, ferry services, clearance of waterways and laying of buoys; NIWA is a full-fledged parastatal with some degree of autonomy. Like the federal ministries, it has its own departments, units and area offices that aid it in the running of the Nigerian Inland Waterways. The Federal Ministry of Transport only serves as supervisory body for NIWA. However, its contribution to the development of the inland waterways as a mode of transport is yet to be altogether felt due to the relative neglect of

the management of the waterborne transport sub-sector by successive governments in Nigeria since 1900.

The dredged river Niger remained underutilized because other components like ports and jetties which could make Inland Waterways Transport (IWT) a viable alternative to other modes of transport are not developed and as such has little or no contribution to the development of Nigerian economy. NIWA as claimed by its official is not a revenue generating parastatal; it is saddled with the responsibility of developing the inland waterways for navigability, so as to create effective intermodal transport system through viable Inland Waterways System. However, the power NIWA is charged to exercise has inadvertently made it a revenue generating agency of government. The chapter therefore measured the contribution of NIWA based on fines, dues and rates, and taxes it collected for the government within its jurisdiction. This is so because the contribution of NIWA to the development of Nigeria economy cannot be completely measured on the basis of navigation or transportation on the inland waterways; the inland waterways navigational cycle is not altogether complete and therefore could not contribute substantially to the economy. Until the ports and jetties are built there might be no commercial navigation that could fetch adequate revenue to the government. Navigational

cycle on the inland waterways, as gathered, can only be complete where there are ports for loading and unloading of cargo.

The cause of delay in ports and jetties construction by the contractors was poor funding. The government had to address the problem so that the ports could be completed earnestly for the country to start reaping the benefits of transport on the Nigerian Inland Waterways. NIWA, the Authority that manages the inland waterways itself has to be properly funded if the government is serious about making the Nigerian Inland Waterways a viable alternative to other modes of transport.

ENDNOTES

R.D. Abubakar (2005) *Dialogue on Power, Potential and Prospects of the Inland Waterways,* Abuja: Gbenga Gbesan and Associates. P.7

[1] See R.O. Ekundare (1973) *An Economic History of Nigeria: 1860-1960*, London: Methuen & Co. Lted. Pp. 128-131 and R.D. Abubakar (2005)*Dialogue on Power, Potential and Prospects of the Inland Waterways,* Abuja: Gbenga Gbesan and Associates. P.7 and T. Falola and M.M. Heaton (2008) *A History of Nigeria,* New York: Cambridge University Press. P.99

[1] Federal Ministry of Justice (2004) The Laws of the Federation of Nigeria, Volume II, Abuja: Government Press P.2

[1]R.D. Abubakar (2005) *Dialogue on Power, Potential and Prospects of the Inland Waterways,* Abuja: Gbenga Gbesan and Associates. P.6

[1] NIWA Bulletin (2007) "NIWA: Prospects and Challenges, Abuja: Daybreak Communications. P.2

[1]Federal Ministry of Justice (2004) The Laws of the Federation of Nigeria, Volume II, Abuja: Government Press.p.6

[1] Federal Ministry of Justice (2004) The Laws of the Federation of Nigeria, Volume II, Abuja: Government Press.p.6

[1] A.D. Ali (2012) *Trade and Transport in the Lower Niger, 1830-2011,* Lagos: Adenuga Concepts. P.172

[1]Interview with Jibril Darda'u, Senior Manager Public Affairs, Lokoja on November 26, 2015

[1] S.O. Oduola (1977) "The Administrative Factor in the Development of Transportation in Nigeria" in S.O Onakomaiya and N.F. Ekanem (eds.) *Transportation in Nigeria National Development,* Ibadan: The Nigerian Institute of Social and Economic Research. P.464

[1]Interview with Jibril Darda'u, Senior Manager Public Affairs, Lokoja on November 26, 2015

[1] Federal Ministry of Justice (2004) The Laws of the Federation of Nigeria, Volume II, Abuja: Government Press. Pp.3-4

[1] Federal Ministry of Justice (2004) The Laws of the Federation of Nigeria, Volume II, Abuja: Government Press.p.4

[1] Federal Ministry of Justice (2004) The Laws of the Federation of Nigeria, Volume II, Abuja: Government Press. P.4

[1]NIWA Bulletin (ND) "All About NIWA", Lokoja: The Mavis Company. P.6

[1]See page two of this research for details on locations

[1]Interview with Jibril Darda'u, Senior Manager Public Affairs, Lokoja on November 26, 2015.

[1]Federal Ministry of Justice (2004) The Laws of the Federation of Nigeria, Volume II, Abuja: Government Press. Pp.3-4

[1]Federal Ministry of Transport (2010) *National Transport Survey and Projection,* Abuja: Geo Tran Associates Ltd. P.241-242 &Federal Ministry of Justice (2004) The Laws of the Federation of Nigeria, Volume II, Abuja: Government Press. P.2

[1]NIWA (2006) Annual Report, Lokoja: Olusegun Printers. P.5

[1]Interview with Dr Akoh Yunusa at NIWA Headquarters Lokoja on 30/11/2015

[1]Interview with a Deputy Director, Inland Waterway Division at the Federal Ministry of Transport, Abuja on October 9, 2015

[1] NIWA Bulletin (2007) "NIWA: Prospects and Challenges" Abuja: Daybreak Communications. P.2

[1]Federal Ministry of Transport (2010) *National Transport Survey and Projection,* Abuja: Geo Tran Associates Ltd. P.244

[1]Federal Ministry of Justice (2004) The Laws of the Federation of Nigeria, Volume II, Abuja: Government Press. P.12

[1]Federal Ministry of Justice (2004) The Laws of the Federation of Nigeria, Volume II, Abuja: Government Press. P.13

[1]Federal Ministry of Justice (2004) The Laws of the Federation of Nigeria, Volume II, Abuja: Government Press. P.13

[1]Interview with Assistant Superintendent of Police at the NIWA police Command Lokoja, on 26/11/2015

[1]Interview with Assistant Superintendent of Police at the NIWA police Command Lokoja, on 26/11/2015

[1]Interview with Assistant Superintendent of Police at the NIWA police Command Lokoja, on 26/11/2015

[1] NIWA (2009) "Sensitization on NIWA and River Niger Dredging" Lokoja: Research, Planning and Environment Department.P.4

[1] C.L.Oriaku, K.C. Agha and I.G. Oriaku (2011) the Policy Trajectory of Nigerian Transportation: Inland Waterways Policy and Administration, Onitsha: Otinian Ventures. P.49

[1] C.L.Oriaku, K.C. Agha and I.G. Oriaku (2011) the Policy Trajectory of Nigerian Transportation: Inland Waterways Policy and Administration, Onitsha: Otinian Ventures. P.49

[1] C.L.Oriaku, K.C. Agha and I.G. Oriaku (2011) the Policy Trajectory of Nigerian Transportation: Inland Waterways Policy and Administration, Onitsha: Otinian Ventures. P.49

[1] NIWA (2006) Annual Report, Lokoja: Firstcorn Prints. P.3

[1] C.L.Oriaku, K.C. Agha and I.G. Oriaku (2011) the Policy Trajectory of Nigerian Transportation: Inland Waterways Policy and Administration, Onitsha: Otinian Ventures. P.50

[1] A.A. Yar'adua (2010) "an Overview of the Development of Inland Waterways Transportation System in Nigeria" an Unpblished Paper Presented at NIWA Headquaters Lokoja. P.2

[1]Federal Government of Nigeria (2010) *Draft National Transport Policy*, Abuja: FMT Publications, p. 17

[1] C.L.Oriaku, K.C. Agha and I.G. Oriaku (2011) the Policy Trajectory of Nigerian Transportation: Inland Waterways Policy and Administration, Onitsha: Otinian Ventures. P.50

[1] NIWA (2007) Annual Report, Lokoja: Firstcorn Prints. P.13

[1] Interview with Dr Akoh Yunusa at NIWA Headquarters Lokoja on 30/11/2015

[1] Interview with Dr Akoh Yunusa at NIWA Headquarters Lokoja on 30/11/2015

[1] C.L.Oriaku, K.C. Agha and I.G. Oriaku (2011) the Policy Trajectory of Nigerian Transportation: Inland Waterways Policy and Administration, Onitsha: Otinian Ventures. P.50

[1] B. Badejo (2010) "Developing Inland Waterways Transportation in Nigeria: What Role for the Private Sector?" Paper Presented at the Lagos State Ministry of Transport Secretariat, Alausa, Ikeja. P.5

[1] C.L.Oriaku, K.C. Agha and I.G. Oriaku (2011) the Policy Trajectory of Nigerian Transportation: Inland Waterways Policy and Administration, Onitsha: Otinian Ventures. P.51

[1] I. A. Umar (2013) Focus on Transformation in the transport Sector (Rail, Marine and Inter-Modal Cordination), Abuja: Federal Ministry of Transport. P.84

[1] Encyclopedia Americana (2006) *Jetties*, International Edition, Volume 13, Danbury, Connecticut: Scholastic Library Publishing, Inc. P.783

[1] Encyclopedia Americana (2006) *Jetties*, International Edition, Volume 13, Danbury, Connecticut: Scholastic Library Publishing, Inc. P.784

[1] Interviews with Tayo Fadile, General Manager Corporate Affairs, NIWA Headquarters, Lokoja on 10/08/2015

[1] Interviews with Tayo Fadile, General Manager Corporate Affairs, NIWA Headquarters, Lokoja on 10/08/2015

[1]Interviews with Tayo Fadile, General Manager Corporate Affairs, NIWA Headquarters, Lokoja on 10/08/2015

[1] NIWA (2006) Annual Report, Lokoja: Firstcorn Prints. P.2

[1]Interviews with Tayo Fadile, General Manager Corporate Affairs, NIWA Headquarters, Lokoja on 10/08/2015

[1] Royal Haskoning (2010) "Inland Waterways Masterplan and Bankable feasibility Studies," Abuja: Federal Ministry of Transport Official Publications. P.59

[1] NIWA (2007) Annual Report, Lokoja: Firstcorn Prints. P.11

[1] Interviews with Tayo Fadile, General Manager Corporate Affairs, NIWA Headquarters, Lokoja on 10/08/2015

[1] Federal Ministry of Transport (1981), *Inland Waterways Department Annual Report*, Lagos: Federal Ministry of Transport Official Publications. P.2

[1] Royal Haskoning (2010) "Inland Waterways Masterplan and Bankable feasibility Studies," Abuja: Federal Ministry of Transport Official Publications. P.59

[1] Interviews with Tayo Fadile, General Manager Corporate Affairs, NIWA Headquarters, Lokoja on 10/08/2015

[1] Royal Haskoning (2010) "Inland Waterways Masterplan and Bankable feasibility Studies," Abuja: Federal Ministry of Transport Official Publications. Pp.272-273

[1] Royal Haskoning (2010) "Inland Waterways Masterplan and Bankable feasibility Studies," Abuja: Federal Ministry of Transport Official Publications. Pp.272-273

[1] Royal Haskoning (2010) "Inland Waterways Masterplan and Bankable feasibility Studies," Abuja: Federal Ministry of Transport Official Publications. Pp.272-273

[1] Royal Haskoning (2010) "Inland Waterways Masterplan and Bankable feasibility Studies," Abuja: Federal Ministry of Transport Official Publications. P.59

[1] Interview with Dr Akoh Yunusa at NIWA Headquarters Lokoja on 30/11/2015

[1] Interviews with Bawa Bawa, General Manager Audit Department, NIWA Headquarters, Lokoja on 07/12/2015

[1]Nigerian Waterways (2014) Newsletter of the National Inland Waterways Authority, Lokoja, No. 21. P.11

[1] Interviews with Security Guard at the Lokoja Port Site, Jamata on 09/12/2014

[1] Interviews with Bawa Bawa, General Manager Audit Department, NIWA Headquarters, Lokoja on 07/12/2015

[1] Interviews with Onawala Feyisara Hannah, Acting Chief NIWA Library, NIWA Headquarters, Lokoja on 13/12/2015

[1] Royal Haskoning (2010) "Inland Waterways Masterplan and Bankable feasibility Studies," Abuja: Federal Ministry of Transport Official Publications. P.71

[1] See NIWA (2009) Annual Report, Lokoja: Firstcorn Prints. P.5 and Royal Haskoning (2010) "Inland Waterways Masterplan and Bankable feasibility Studies," Abuja: Federal Ministry of Transport Official Publications.

[1] Royal Haskoning (2010) "Inland Waterways Masterplan and Bankable feasibility Studies," Abuja: Federal Ministry of Transport Official Publications. P.71

[1]Nigerian Waterways (2014) Newsletter of the National Inland Waterways Authority, Lokoja, No. 22. P.4

[1] Daily Trust (2015) "Vessels Yet To Sail Dredged River Niger" January 11 edition, Abuja: Media Trust Ltd

[1]Nigerian Waterways (2014) Newsletter of the National Inland Waterways Authority, Lokoja, No. 22, P.4.

[1] Interviews with Bawa Bawa, General Manager Audit Department, NIWA Headquarters, Lokoja on 07/12/2015

[1]See Daily Trust (2014) "FRC chairman says Oguta River Port must be completed" September 18th edition, Abuja: Media Trust and I.A. Umar (2013) "Mid-Term Achievement of the Administration of President Goodluck Jonathan in the Transport Sector," Abuja: Federal Ministry of Transport Publication. P.85

[1] Interviews with Engr E.Y. Muazu, Engineering Services Department, NIWA Headquarters Lokoja on 09/12/2015

[1] I.A. Umar (2013) "Mid-Term Achievement of the Administration of President Goodluck Jonathan in the Transport Sector," Abuja: Federal Ministry of Transport Publication. P.85

[1] Interviews with Engr E.Y. Muazu, Engineering Services Department, NIWA Headquarters Lokoja on 09/12/2015

[1] Interviews with Engr E.Y. Muazu, Engineering Services Department, NIWA Headquarters Lokoja on 09/12/2015

[1] The New Encyclopaedia Britannica Volume 6 (2010) New Edition, London: Encyclopaedia Britannica, Inc.p.543

[1] The World Book Encyclopedia (2007)Volume 11, Chicago: World Book Inc. P.116

[1] The New Encyclopaedia Britannica Volume 6 (2010) New Edition, London: Encyclopaedia Britannica, Inc.p.543

[1] Interview with Dr Akoh Yunusa at NIWA Headquarters Lokoja on 30/11/2015

[1]Interview with Dr Akoh Yunusa at NIWA Headquarters Lokoja on 30/11/2015

[1] Compilation of Jetties are gotten from Dr Akoh Yunusa at NIWA Headquarters Lokoja on 10/12/2015

[1] Interviews with Engr E.Y. Muazu, Engineering Services Department, NIWA Headquarters Lokoja on 09/12/2015

[1]Interviews with Captain Samuel O Whyte, Marine Department, NIWA Headquarters, Lokoja on 11/12/2015; Usman Umoru, at Umaisha, Nasarawa

State on 11/12/2015 and Agum Inienger, at Bukuru, Benue State on 13/12/2015.

[1]Federal Ministry of Justice (2004) The Laws of the Federation of Nigeria, Volume II, Abuja: Government Press P.2

[1]NIWA(2010) "Internally Generated Revenue Report by Area Offices" Lokoja: Audit Department

[1]See NIWA(2010) "Internally Generated Revenue Report by Area Offices" Lokoja: Audit Department & NIWA(2013) "Internally Generated Revenue Report by Area Offices" Lokoja: Audit Department

[1] Interviews with Bawa Bawa, General Manager Audit Department, NIWA Headquarters, Lokoja on 07/12/2015

[1] Interviews with Bawa Bawa, General Manager Audit Department, NIWA Headquarters, Lokoja on 07/12/2015

[1] Interviews with Bawa Bawa, General Manager Audit Department, NIWA Headquarters, Lokoja on 07/12/2015

[1] Interviews with Bawa Bawa, General Manager Audit Department, NIWA Headquarters, Lokoja on 07/12/2015