

# **Port Hinterland Rail Connectivity Prospects**

*PRESENTED BY*

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**AT**

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# Presentation Outline

- Transportation in Nigeria
- Transportation and Economic Development
- Port Hinterland Connectivity
- The Concept of Hinterland In Connection with Port
- Rail Transport and its roles in Port Hinterland Connectivity
- The Nigeria Railway Corporation
- Historical Development of Railways in Nigeria
- Nigerian Railway Development Plan
- Performance of Passenger and Freight Train Services From 2010-2018
- Future Plans

Conclusion



# TRANSPORTATION IN NIGERIA

## Introduction

- It is universally recognized that transportation is a crucial factor for sustained economic growth and modernization of a nation.
- The adequacy of this vital infrastructure is an important determinant of the success of a nation's effort in diversifying its production base, expanding trade and linking together resources and markets into an integrated economy.
- In Nigeria today goods and passenger movement are performed mainly by road while water, rail and air though play significant roles but at a much lower scale.
- The draft national transport policy plans to establish an integrated and intermodal transport system that will ensure effective connectivity between the seaports, rail, road and airports thereby making use of the advantages of different modes to ensure seamless movement of goods and passengers.



# Transport and Economic Development

- Transport plays a key role in the economic and social development of any nation.
- An efficient and effective transport system stimulates national development and brings about unhindered movement of goods and services.
- The different transport modes rail, road, water and air have specific advantages and uses. Hence the overall efficiency of the transport system depends on the development of these modes.

Transport's contribution to economic development includes the following:

- **Network effects**
  - linking more locations exponentially increases the value and effectiveness of transport
- **Performance improvements**
  - reducing cost and time for existing passenger and freight movements increase transport's contribution to economic growth
- **Reliability**
  - improves time performance and reduces loss and damage, thus reducing economic drag
- **Market size**
  - access to wider markets adds to economies of scale in production, distribution, and consumption, thereby increasing economic growth
- **Productivity**
  - transport increases productivity gained from access to a larger and more diverse base of inputs such as raw materials, parts, energy, and labor, and broader markets for more diverse outputs





# Port / Hinterland Connectivity

- For any seaport to grow and meet its setted targets, the availability of three Port attributes is a must:
  - The Seaward Approach
  - The Port Proper
  - The Land around the Port and even beyond

❑ **The Seaward Approach** refers to facilities a seaport should have. A good Port should have deep channels and safe anchorage to facilitate the safe berthing various sizes of ships.

❑ **The Port Proper** refers to facilities within the port that support other port activities. Some of this include efficient and modern physical facilities as in berth of good length, water supply and bunkering facilities, requisite handling equipment, convenient storage facilities, custom, police, administration offices and workshops.



# Port / Hinterland Connectivity – contd.

- ❑ **The Landward Area:** Every port needs a large flat area for port expansion, port shipping services and other auxiliary services such as clearing and forwarding, industrial locations, etc.
- A seaport should be well accessible to their hinterland
- Transportation network and linkages in and out of the Port in terms of multimodality must be available as desired.
- For viable and progressive operation of the port, the port's hinterland must be productive, rich and accessible so as to generate enough traffic and revenue and promote two ways shipping trade activities (i.e import and export).



# The Concept of Hinterland in connection with a Port

- Hinterland is an area from where a port draws its trade i.e. the area from which it receives its exports and to which it sends its imports.
- In order for a port to be successful, it needs to develop a two way trade (i.e. imports and exports). It needs people and industries to create demand for imported goods and to produce raw materials or manufactured goods for export.
- Hinterland marks the areas within which the outgoing traffic of a port originates and the incoming traffic terminates.
- The different types of hinterland include: the Primary, The Secondary and the Peripheral hinterland.
- The primary hinterland refers to immediate area that a port serves. The Secondary hinterland is the area beyond the primary area which the port serves to a lesser extent while the Peripheral hinterland is the area that is farther and it is served minimally.
- Hinterland can also be classified into Primitive and Advanced or Matured hinterland based on the production and absorptive capabilities of the area.
- A primitive hinterland is one that develops along a solitary routeway – a road or rail and the outflow of a single major commodity in a commercially viable quantity while a matured or advanced hinterland is one with diversified production and linked with a port by several lines or modes of transportation.



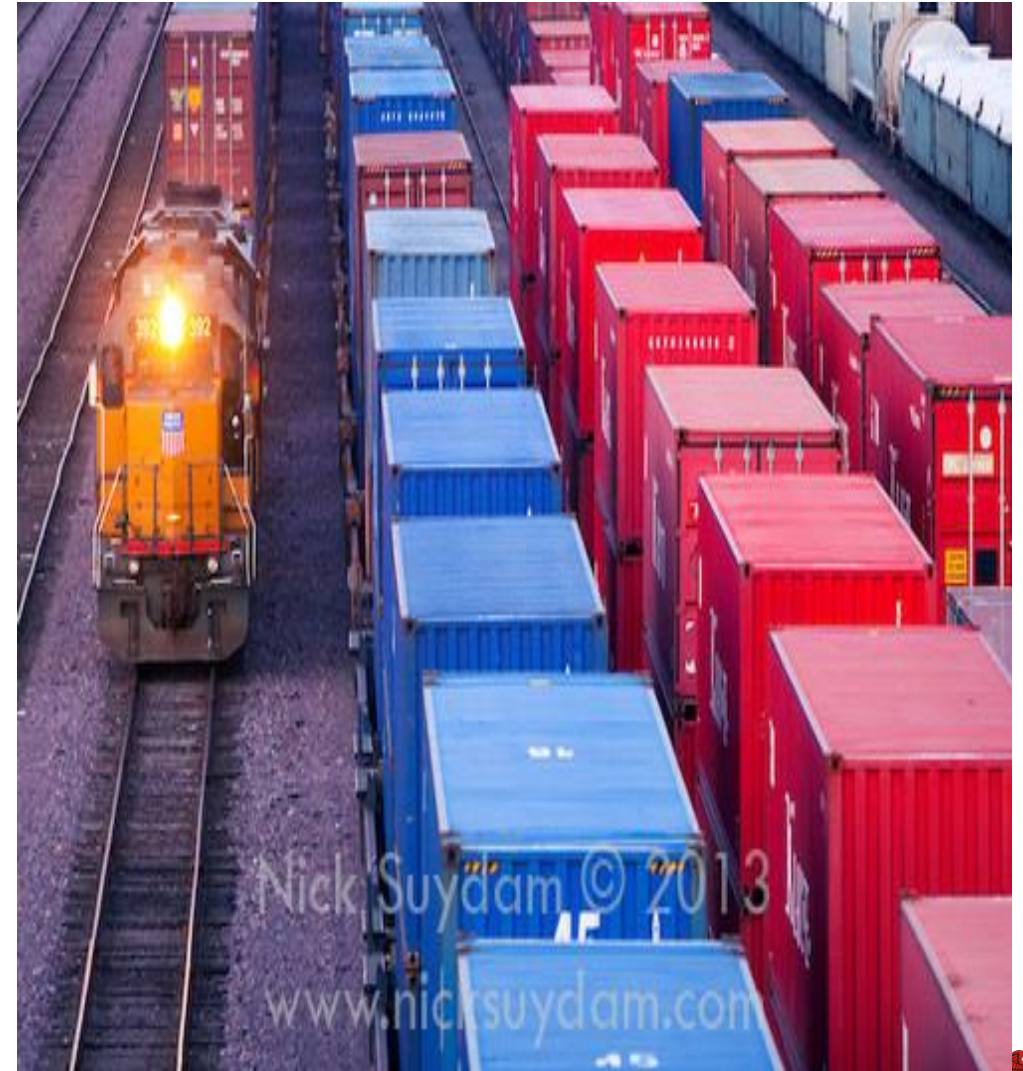
# Rail Transport & its roles in Port/Hinterland Connectivity

Lack of integrated Port/Rail planning has brought about the present systemic impedance in the evacuation of goods from the port. This has resulted into a very high degree of congestion as being experienced in our ports roads as it negates global trends and best practices.

Our Port has therefore been reduced primitive ports with only one means of transportation i.e. road mode.

## Roles Rail plays in Port/Hinterland Connectivity

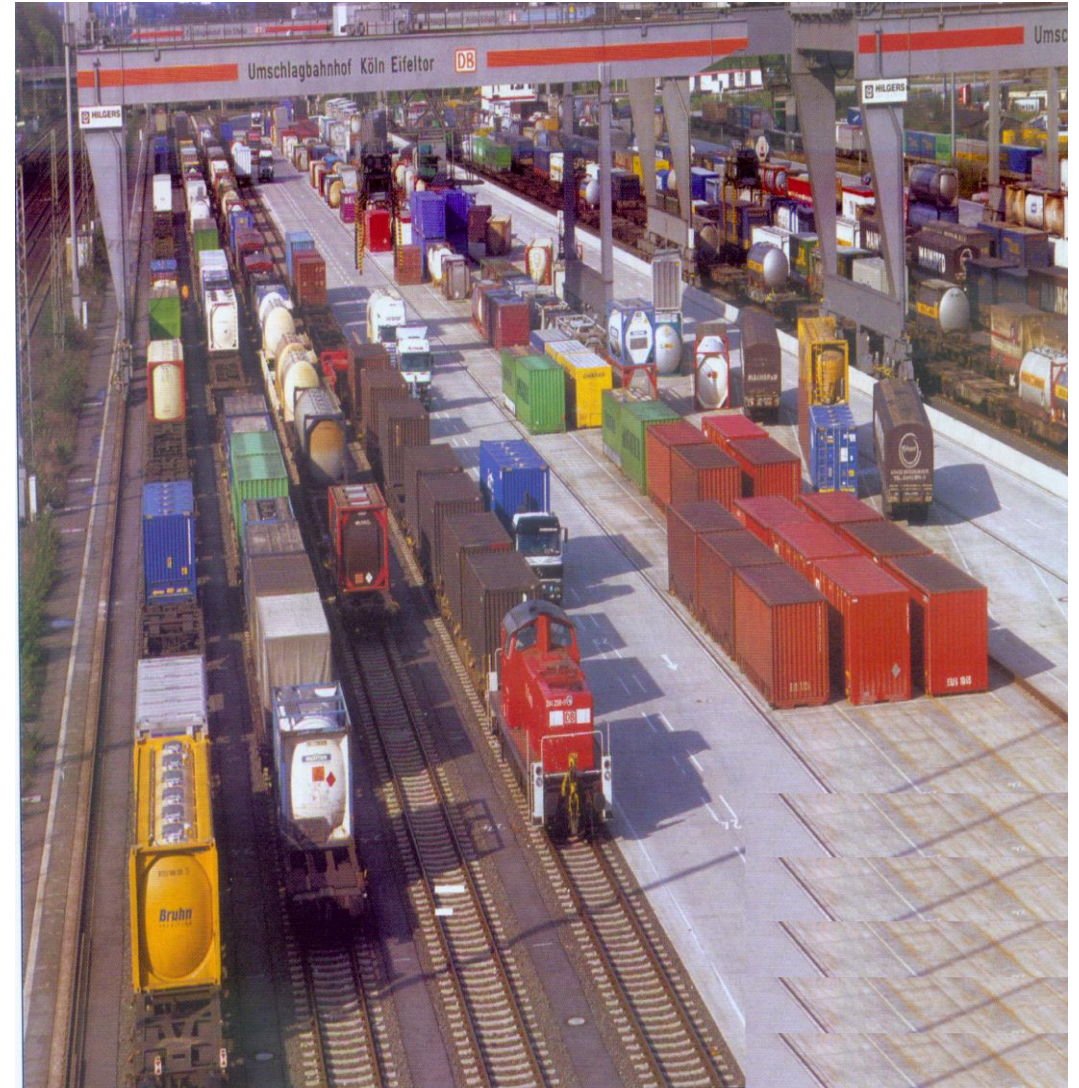
- It is a strategic element that has both economic and competitive advantages.
- It reduces negative externalities on people and environment.
- It promotes growth in capacity without affecting the Port-City relationship.
- It increases hinterland accessibility efficiently and sustainably.
- It fosters the integration of logistics, etc.





# Rail Transport & its roles in Port/Hinterland Connectivity – contd.

- Increasing the capacity of rail transport through investment in track and rolling stock is essential
- Grade separation within the port complex will improve road safety
- Incorporating the development of internal railway legs into port planning to ensure that it matches traffic forecasts for a modern logistics operations
- resolving any discrepancies between rail and port legislation to promote and facilitate port-rail integration
- Linking all other ports by rail
- Creating marshalling yard within the port
- Rail as co-operant factor to the development of ICDs should be made efficiently functional
- Institutionalizing an Integrated Logistics and Transport Policy that will support both internal mobility and the mobility necessary to compete for foreign trade



# NRC Profile



# THE NIGERIAN RAILWAY CORPORATION../1

## Who we are

### Our Vision

To be a world class rail transport organization, providing safe, efficient, affordable, reliable, widely linked network and customer oriented service

### Our Mission

To emerge as the leader in the Nigeria Transport System, using well motivated work force with modern technology

### Our Values

Professionalism , Integrity, Team Spirit, Respect for individual and Deliver on Promise



# The Nigerian Railway Corporation../2

## Our Mandate

Carriage of passengers and goods in a manner that will offer full value for money

Meet cost of operation

Improve market share and quality of service amongst other modes of transportation

Ensure safety of operations and maximum efficiency

Meet social responsibility in a manner that will meet the requirements of rail users, traders, commerce, industry, Government and the General Public.





# The Nigerian Railway Corporation../3

## Our Strategic Goals

Improve the quality of rail infrastructure and services (Tracks, workshops, running sheds, signaling and telecommunication system etc)

Make rail the major mover of freight over long distance within the country

Make rail a viable and reliable alternative mode of transport for passengers

Link all State capital and major economic centers to the rail network

Link all International and cargo airports, sea and river ports to the rail network



# Historical development of railways in Nigeria

- The Nigerian Railway Corporation traces its history to the year 1898, when the first rail track in Nigeria from Lagos – Ibadan (193km) was constructed by the British colonial government.
- Between 1898 and 1964 Nigeria had built a network of narrow gauge rail lines totaling 3505km with over 350 bridges, about 20 quarries and about 300 stations.
- In 1986, the Federal Government of Nigeria commenced the construction of 326 km standard gauge rail line phase 1 from Itakpe – Ajaokuta – Warri .The line is now Operational
- In February, 2011 the Federal Government of Nigeria commenced the construction of 187.5 km Abuja – Kaduna Standard gauge rail line which was commissioned by the President on 26<sup>th</sup> July, 2016 and has since commenced commercial operation.



# Nigerian Railway at its Peak

## Activities

- Had total over 3,500 Kilometers of narrow gauge lines with over 350 bridges, about 20 quarries, about 300 stations
- Had over 250 different classes of locomotives and over 3,500 vehicles for passengers, freight and special purposes
- Had a number of workshops, running sheds, warehouses, storage tanks across the network
- Moved about 15 million passengers and 3 million tons of freight per annum at its peak

## Economic Impact

- Increased economic activities along the corridors and developed villages into commercial towns
- Moved over 3 million tons of freight
- Major economic driver for the North and South business transactions
- Entry and Exit link for imports and exports

## Social Impact

- Employed over 45,000 direct and over 250,000 indirect employment when population was about one third of what it is today
- Leading means of transportation for business, commercial, educational and leisure
- Supported national integration and unity

## Environmental Impact

- More freight and passengers were moved by rail resulting in less carbon emission
- Less road traffic congestion
- Safety and Security
  - More youth were gainfully engaged, less restiveness
- Reduced accident occurrence by rail than road



# Nigerian Railway Development Plan

## The 25-Year Railway Strategic Vision

PHASE	CONCENTRATION	KEY STRATEGIES	TIME FRAME
1.	SYSTEM TRANSITION	<ul style="list-style-type: none"><li>• REHABILITATION</li><li>• RESTRUCTURING</li><li>• INTRODUCING OPERATIONAL CHANGES</li><li>• TRAINING</li><li>• INVESTMENT PLANNING</li><li>• DEV. OF DOMESTIC CAPACITY FOR PRODUCTION OF RAIL MATERIALS</li><li>• DEV. OF NATIONAL TECHNOLOGICAL CAPACITY</li></ul>	2002 - 2007
2.	SYSTEM MODERNISATION	<ul style="list-style-type: none"><li>• CONVERSION TO STANDARD GAUGE</li><li>• CONSTRUCTION OF NEW LINES &amp; EXTENSIONS</li><li>• PRIVATE INVESTMENT</li><li>• CONT. TO DEV NATIONAL TECHNOLOGICAL CAPACITY</li></ul>	2007 - 2015
	SYSTEM STABILISATION	<ul style="list-style-type: none"><li>• COMPLETION OF CONVERSION TO STANDARD GAUGE &amp; CONSTRUCTION OF EXTENSIONS</li></ul>	2016 - 2027





# NRC Current Train Operations../1

## Passengers Service

### ■ **Intra-city Mass Transit:**

- **Lagos Mass Transit Train:** 18 Trips per day, moving about 18,000 passengers daily
- **Port-Harcourt- Aba :** Twice daily

### ■ **Intercity Passenger Service:**

- **Lagos – Kano –Lagos Train:** 1 return trip a week, moving about 2,500 passengers per week
- **Lagos-Ilorin-Lagos Train:** 1 return trip week, moving about 2,100 passengers weekly
- **Offa – Kano - Offa Train:**1 return trip weekly, moving about 2,000 passengers weekly

- **Minna – Kaduna – Minna Train:** 3 return trips per week, moving about 3,500 passengers weekly
- **Kano – Nguru Train:** 2 return trips per week, moving about 1,000 passengers and 200 tons of luggage and parcels
- **Zaria – Kaura Namoda – Zaria Train:** 1 return trip weekly.
- **Excursion Trains:** Highly patronized during festivities.

### ■ **Standard Gauge Service**

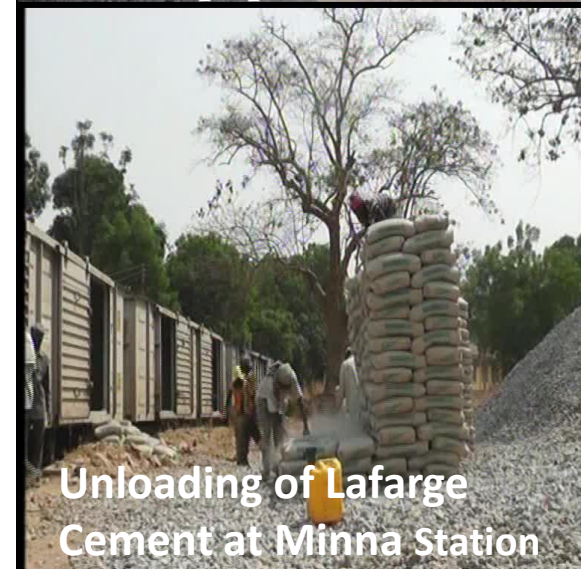
- **Abuja-Kaduna-Abuja:** 4 return trips per day except Wednesday (2 )
- **Warri-Itakpe – Warri:** 3 return Trips per week



# NRC Current Train Operations../2

## Freight services

- **Lafarge Cement Traffic**
  - Lagos to Kano, carrying about 3,000 tons monthly.
  - **Export** From Funtua, Sanusi and Omi Adio to Apapa Port, carrying about 1000 tons per month.
- **Bonded Container** Traffic for ICNL and APMT from Apapa in Lagos to Kano.
- Movement of NRC's **Petroleum Product (AGO)** from Lagos to Kano.
- Miscellaneous Traffic, about 1,000 tons monthly.
- **Fertilizer Movement**
- **Pipe Movement**
- **Livestock**



# NRC's Efforts to reducing the Apapa Gridlock

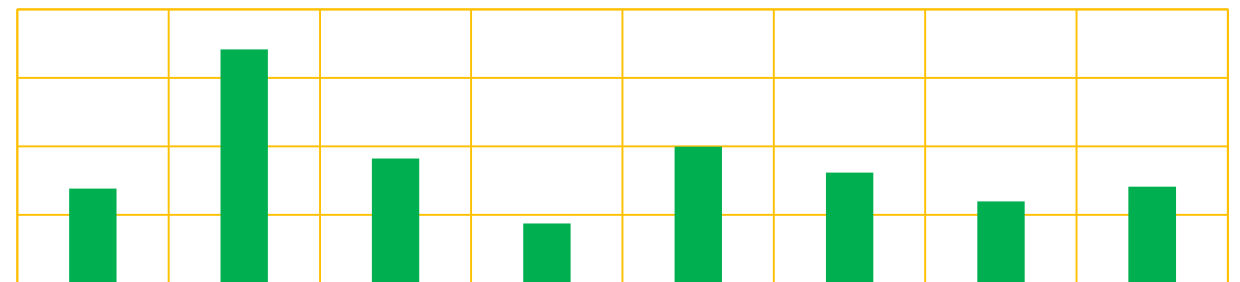
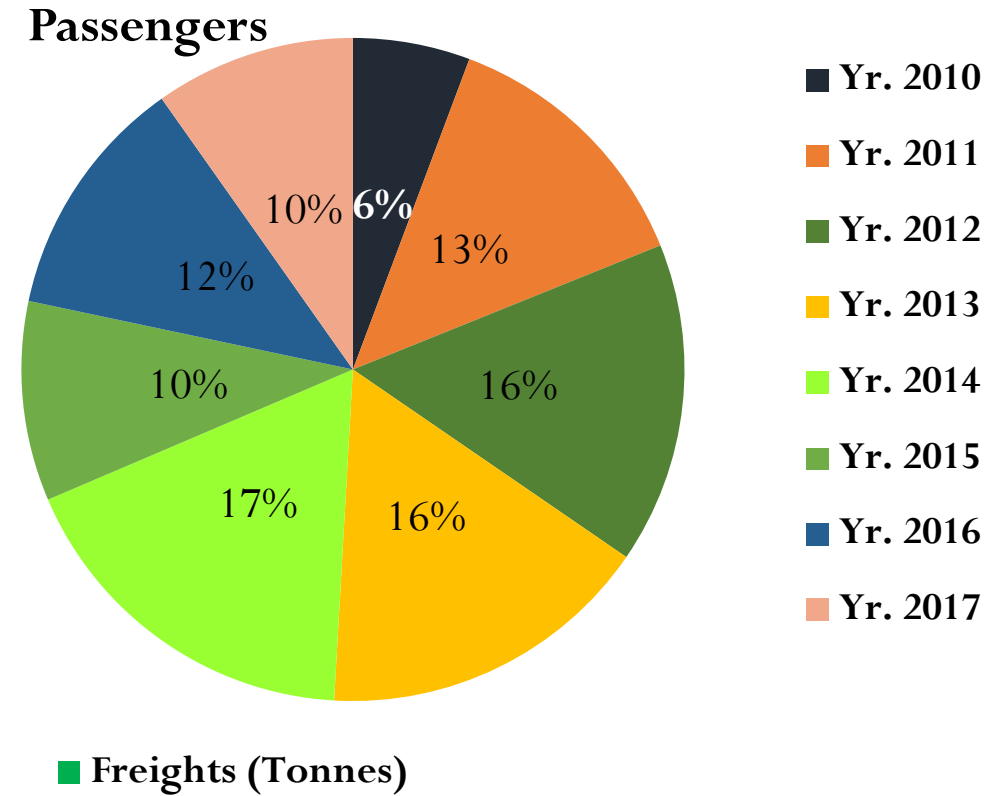
- Introduction of container shuttle services between the following:
  - Apapa Port – Ebute Metta Junction/Ijoko
  - Apapa Port – Omi-Adio in Ibadan
- The following are proposed to take off soon:
  - Apapa Port – Wasimi in Ogun State
  - Apapa Port – Abese in Ogun state
- Proposed investment in railway equipment and rolling stock for optimizing the Apapa decongestion project.
- Proposed concession of the narrow gauge track network to Transnet Consortium
- The Lagos – Ibadan track construction is being linked to Apapa Port





# Performance of Passengers and Freight Train Services From 2010-2018

YEAR	PASSENGER PERFORMANCE (NUMBER)	FREIGHT PERFORMANCE (TONS)
Yr. 2010	1,514,215	138,533
Yr. 2011	3,493,443	341,396
Yr. 2012	4,155,988	182,465
Yr. 2013	4,328,787	87,385
Yr. 2014	4,685,570	199,432
Yr. 2015	2,581,046	161,694
Yr. 2016	3,153,436	119,842
Yr. 2017	2,593,744	141,186



Yr. 2010 Yr. 2011 Yr. 2012 Yr. 2013 Yr. 2014 Yr. 2015 Yr. 2016 Yr. 2017





# Rolling Stock for Narrow Gauge Rehabilitated in - house



Covered Wagons



Hopper Wagons



Open Wagons



Passenger Coach





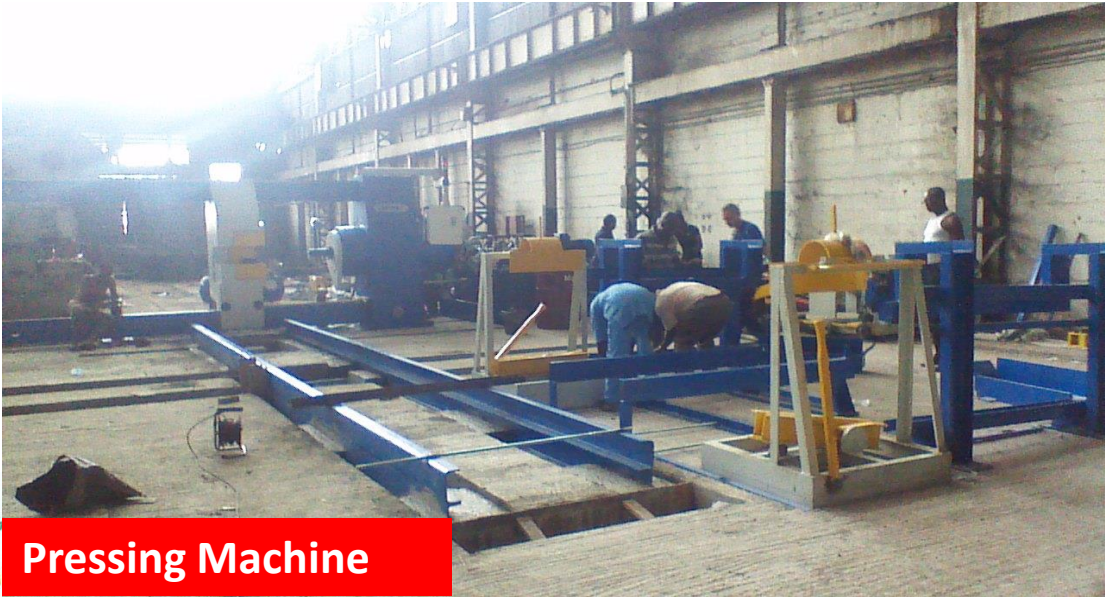
# Procured Workshop Equipment and training on Installation



**Telescopic Crane**



**Wheelathe Machine**



**Pressing Machine**



**Overhead Crane**





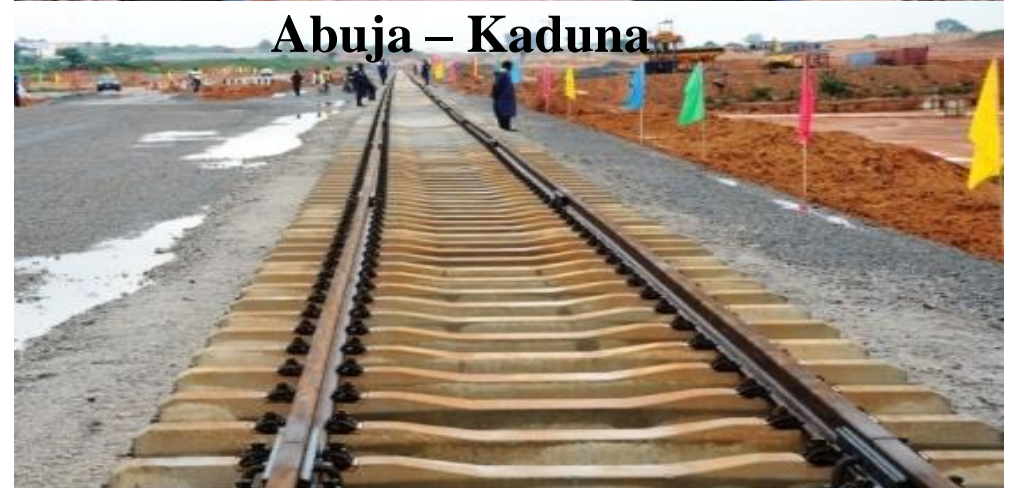
# Railway Development Plan: Modernization Programme (Construction of New Standard Gauge Lines)

- Construction and rehabilitation of the Itakpe – Ajaokuta – Warri Standard Gauge line. Train operations commenced September 2018.
- Construction of Abuja(Idu) – Kaduna Standard gauge completed. Train operations commenced 2016.
- Construction of Lagos – Ibadan Standard Gauge (double track) 2 x 180km. Construction works near completion. Some sections of the network already open for train operations.

**Itakpe – Ajaokuta – Warri**



**Abuja – Kaduna**



# Construction of New Standard Gauge Lines – Feasibility Studies

## ON GOING FEASIBILITY STUDIES ON NEW RAILWAY ROUTES

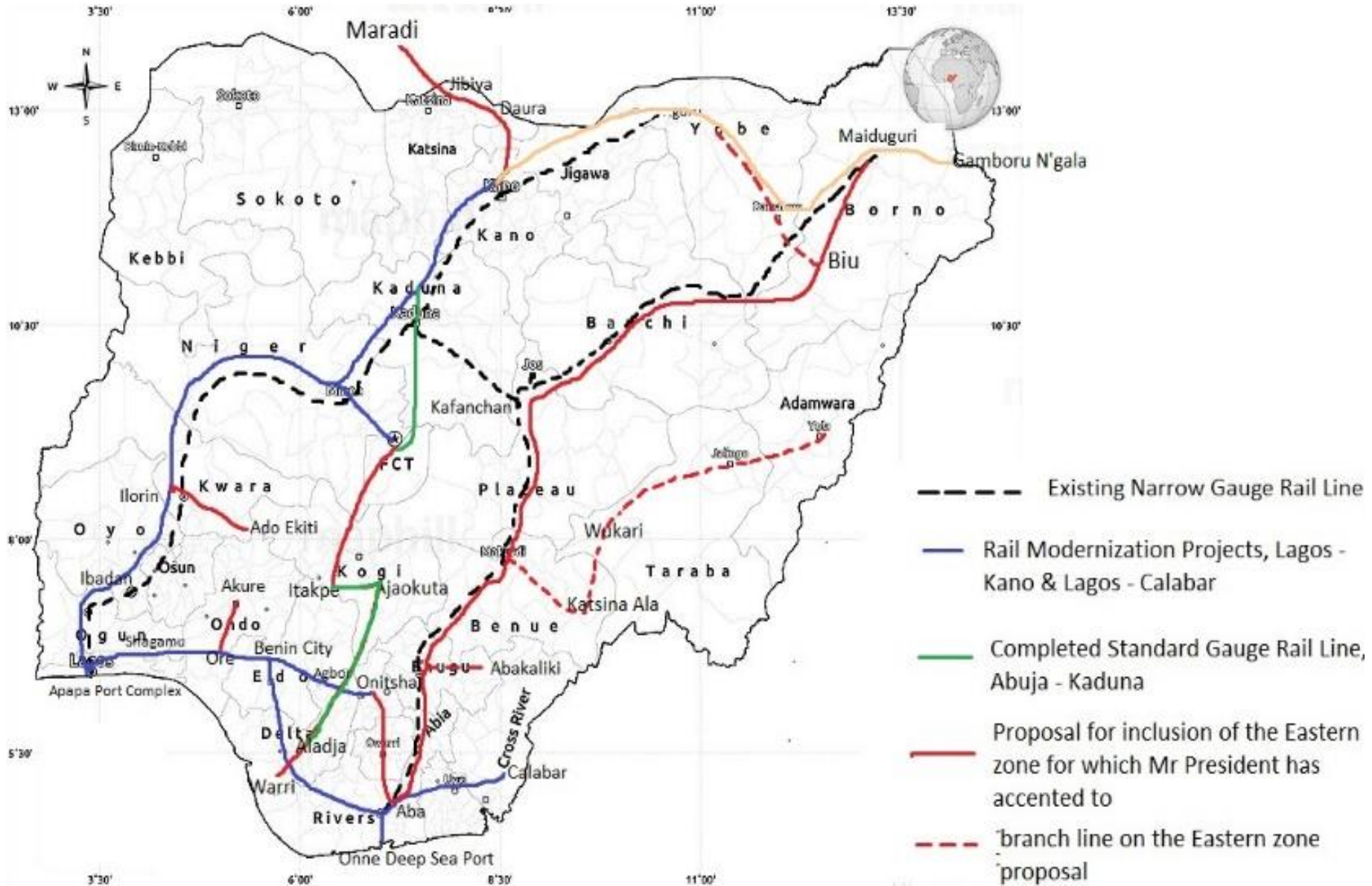
1. East-West Rail Line Lagos- Shagamu-Ijebu Ode-Ore-Benin City, 300km
2. Zaria-Kaura Namoda-Sokoto- Illela -Birnin Konni (Niger Republic - 520km)
3. Lagos-Ibadan-Osogbo-Baro-Abuja(High Speed 615Km)
4. Ajaokuta(Eganyin)-Obajana-Jakura-Baro-Siraj-Abuja with additional line from Ajaokuta to Otukpo to include the Anyigba - Ejule - Idah - Adoru - Nsukka - Adani - Omor - Anaku - Aguleri - Nsugbe - Onitsha Rail Line (821km)
6. Benin-Agbor-Onitsha-Nnewi-Oweri-Aba with additional line from Pnitsha-Enugu-Abakaliki (500km)
7. Kano – Bichi - Katsina – Jibiya (354km)
8. Eganyin (Near Ajaokuta)-Lokoja-Abaji-Abuja (280km)
9. Sokoto – Birnin Kebbi - Jega –Yauri - Makera with a branch line to Kontagora (408km)
10. Coastal rail line in the Niger Delta Region(Benin-Sapele, Warri-Yenagoa, Port Harcourt- Aba-Uyo-Calabar-Akampa-Ikom-Obudu Cattle Ranch (673km)
11. Port Harcourt-Aba-Umuahia-Enugu-Makurdi-Lafia-Kuru-Bauchi-Gombe-Biu-Maiduguri (1,552km)
13. Kano-Nguru-Gusau-Damaturu-Maiduguri-Gamborugala (707km)
14. Aba – Ikot Ekpene - Ibiono - Itu (Spur Uyo) Odukpani Calabar (340km)
16. Calabar -Ikom – Obudu – Ogoja – KatsinaAla – Wukari – Jalingo –Yola – Maiduguri (1,069km)



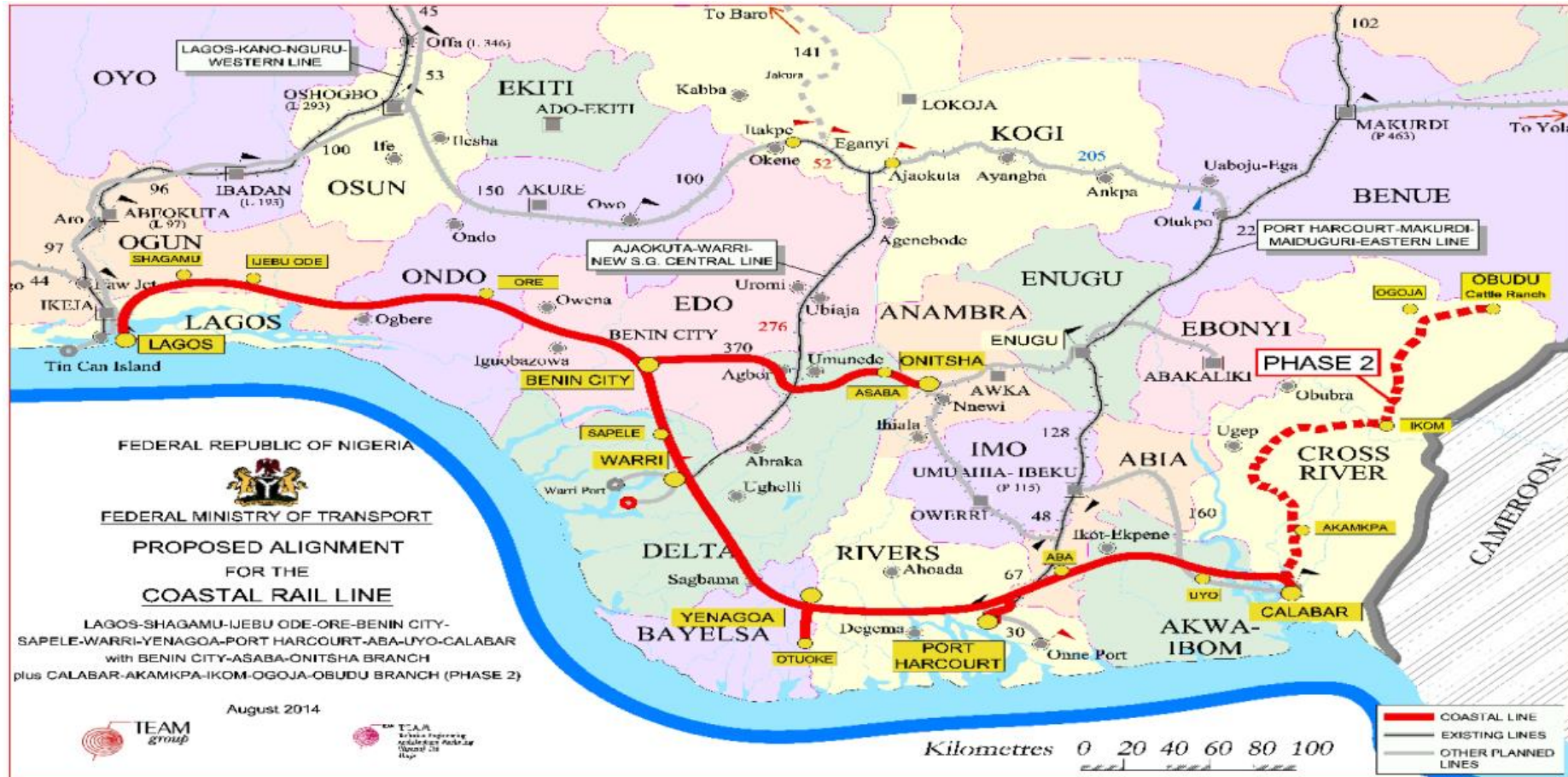


# UPDATE ON NRC PROJECTS

## OVERVIEW OF RAILWAY TRACK NETWORK



# Costal Railway Standard Gauge Lines Project



# Future Plans../1

In line with the Twenty Five (25) year Rail Sector Strategic Plan, NRC has identified the following key areas for development through Public Private Partnership.

- Station Re-modeling & Redevelopment.
- Railway Landed Property Development.
- Supply and utilization of coaches and wagons; Provision of Warehousing and Logistics.
- Connect rail to all state capitals including major cities and commercial hubs
- Connect rail to all seaports in Nigeria including major dry ports.
- Establishment of the proposed transportation university to complement the Railway training schools and knowledge transfer/localizing rail technology





# Future Plans Contd ../2

- Effective and sustained policies for inter-modality and human capacity development
- Continuous training and retraining of workforce to meet the current realities
- Upgrading and standardization of training schools to meet the global best practice
- *Remodelling and Redevelopment of Major Railway Stations Under PPP*
  - The President has graciously granted approval for remodelling and redevelopment of major railway stations to incorporate modern commercial outlets under PPP arrangement, and has lifted the embargo on leasing of NRC landed properties.
  - The railway stations to be remodelled and redeveloped under PPP are: Iddo Terminal, Ebute Metta Junction, Ilorin, Kaduna Junction, Kano, Port Harcourt, Enugu, Jos and Gombe stations.





# Future Plans Contd .. / 3

## ➤ *The NRC landed Properties to be redeveloped under PPP:*

- ✓ Modern Hotel in Bauchi
- ✓ Modern Hotel and Event Centre in Lagos
- ✓ Luxury High-rise Flats in Lagos
- ✓ Luxury Blocks of Flats in Lagos
- ✓ Modern Residential Estate in Enugu
- ✓ Modern Shopping Complex in Ibadan
- ✓ Luxury Residential Building in Port Harcourt
- ✓ Modern Hotel in Kano

## ➤ **PPP Initiatives**

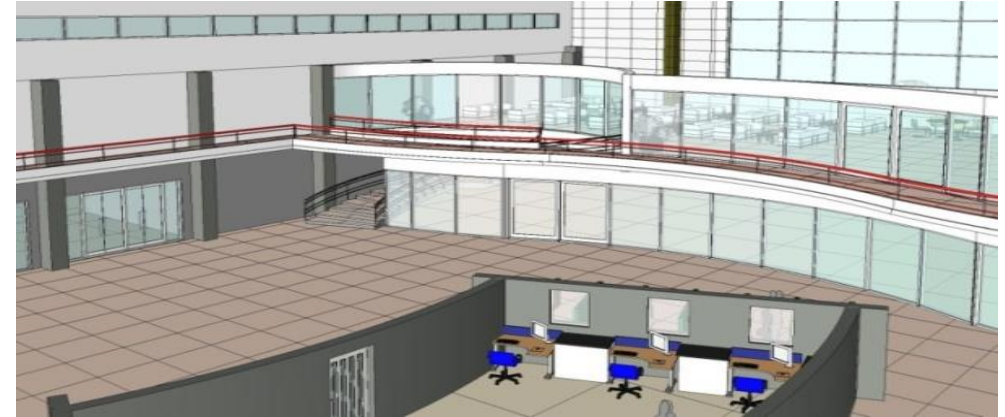
- **Outsourcing to enhance operational efficiency:**
  - On-board cleaning of passenger trains
  - Cleaning of major train stations
  - On-board catering
- **Outsourcing Plans:**
  - Facilities management of all major stations
  - Ticketing service
  - Park and Ride (for car parking)

# STATION REMODELING AND REDEVELOPMENT

**IDDO STATION CURRENT**



**IDDO STATION PROPOSED**



# STATION REMODELING AND REDEVELOPMENT

PORT HARCOURT STATION CURRENT



PORT HARCOURT STATION PROPOSED





# PROPERTY DEVELOPMENT

**MURITALA MUHAMMED WAY, LAGOS CURRENT**



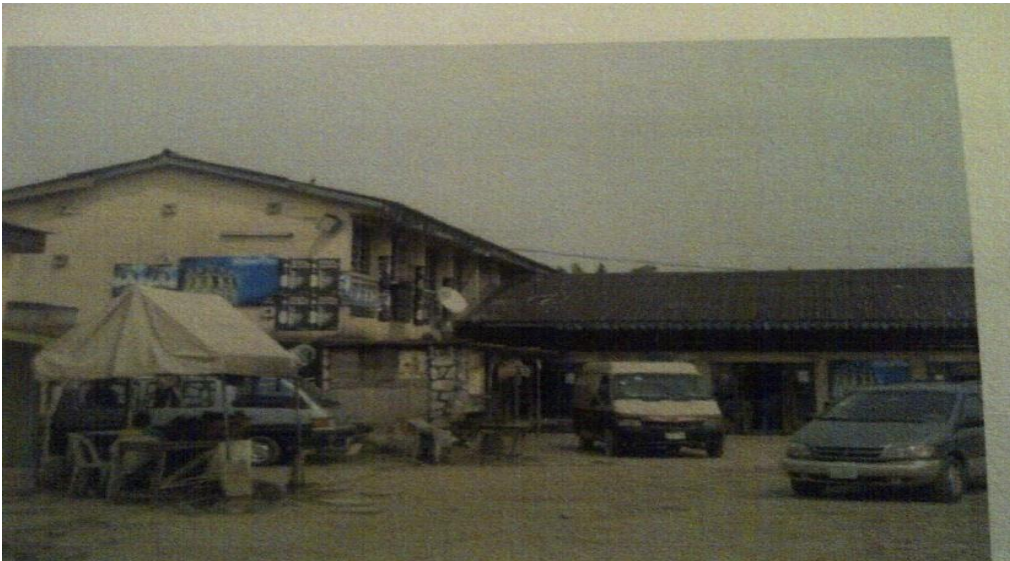
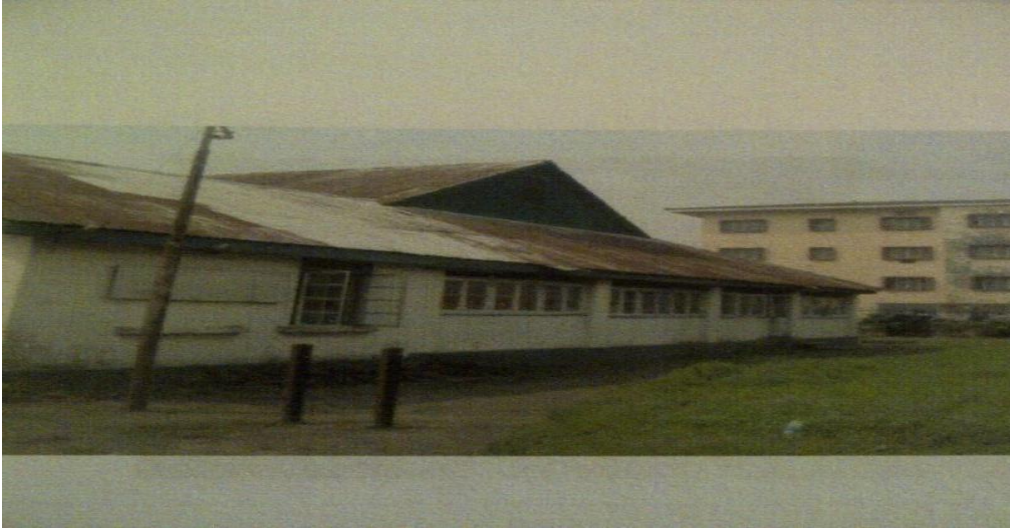
**HIGH-RISE BUILDING ON MURITALA MUHAMMED WAY PROPOSED**





# PROPERTY DEVELOPMENT

**EBUTE METTA, LAGOS CURRENT**



**3 STAR HOTEL AT EBUTE METTA, LAGOS PROPOSED**





# PROPERTY DEVELOPMENT



**BAUCHI GUEST HOUSE**



**KANO GUEST HOUSE**



**PORT HARCOURT GUEST HOUSE**



**3 STAR HOTEL**

# Conclusion

- The yearnings for effective diversification of the Nigerian economy cannot be attained without an efficient and effective rail system.
- In realization of the above, the Federal Government has demonstrated great commitment towards Revitalization and Modernization through the provision of strategic direction and Budgetary provisions.
- Indeed, the Federal Govt. has taken steps in the right direction and a lot has been committed which has already started yielding the desired benefits.
- While we are working to address other areas of challenges, we believe the PPP initiatives will help in increasing capacity, efficiency and better service delivery to Nigerians
- The Private sector through FDIs can augment FG's efforts at providing a state of the art, efficient, effective, reliable rail system that will provide value for money.
- We urge you key into the opportunity



THANK YOU FOR LISTENING  
God Bless you all

