IKORODU- CMS BRT EXTENSION PROJECT

A Presentation by SENIOR Environmental Specialist, Lagos Metropolitan Area Transport Authority Mr Omoniyi Isaac , at The Regional consultation on Air Quality, Clean Vehicles and sustainable Mobility Roadmap in August 24-25, 2016, Nairobi, Kenya.

THE BRT SCHEME IN LAGOS AND ITS APPLICATIONS TO OTHER CITIES.

Presentation Outline

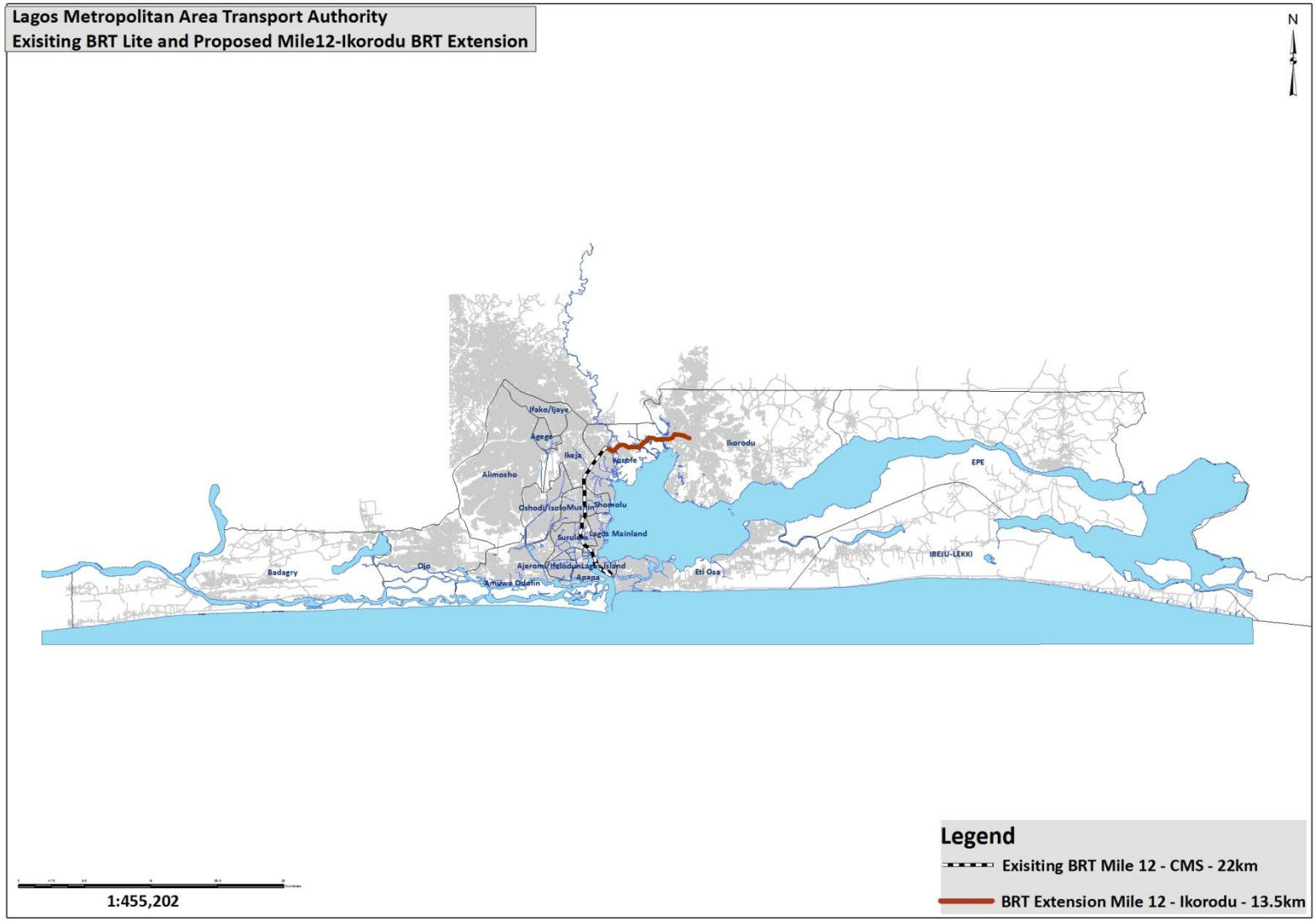
- Introduction
- Purpose
- Transport Challenges in Lagos State.
- What public transport used to be.
- Emergency of Lamata.
- Brief on BRT Lite
- Benefits of BRT Adoption in Lagos.
- Some Issues/Challenges and Next Steps

INTRODUCTION

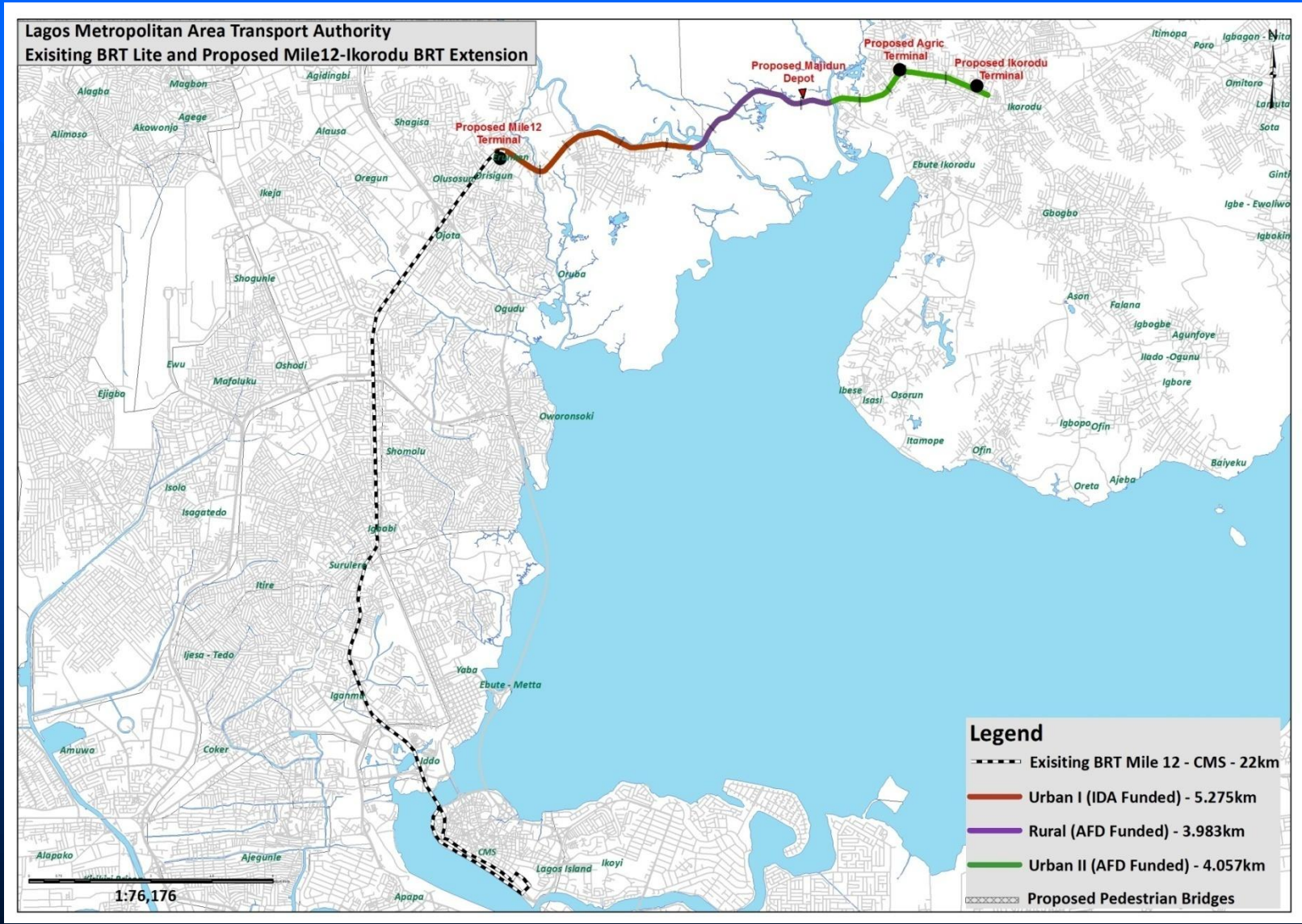
- The Mile 12-Ikorodu BRT Extension Project has been conceived to extend the BRT service from CMS- MILE 12 Town ,while also improving the Ikorodu Road Network Infrastructure.
- The corridor covers a distance of about 13.5km
- It is designed to be a median –running BRT with bilateral bus station configurations linked to pedestrian bridges for access.
- At the completion of the project it extends BRT network to approx. 36km (Ikorodu- CMS)
- The project has been completed by the end of 2014.

WHY IS LAMATA EMBARKING ON THIS PROJECT?

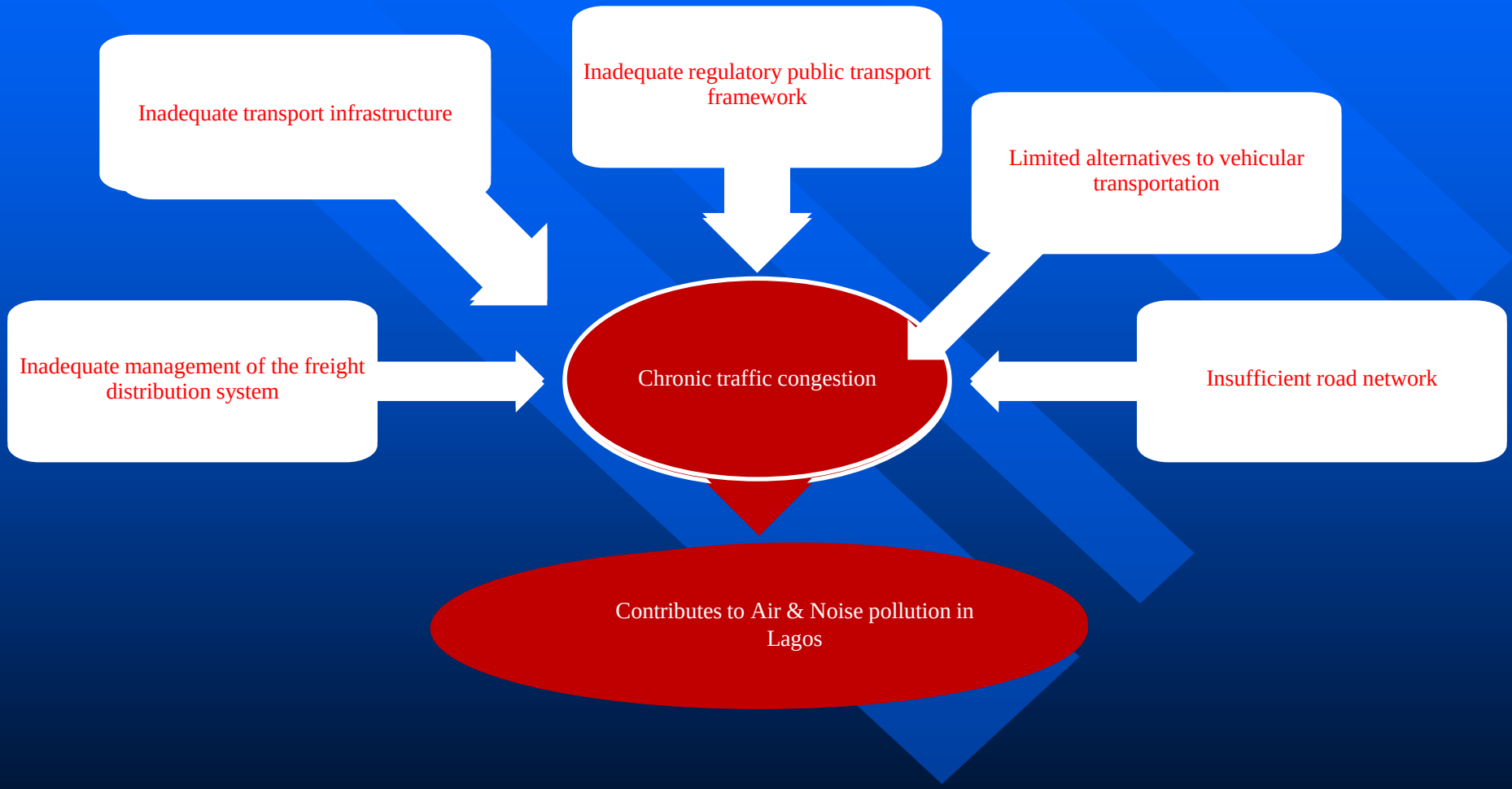
- The population of people living in Ikorodu Town a suburban area of Lagos , is increasing every day and this has caused high demand for public transport.
- The existing public transports are inadequate, unsafe and they are operating in an informal sector.
- Majority of the people in Ikorodu are low and middle class income earners which use public transport.
- The existing transport infrastructure have deteriorated, low capacity and are inadequate.
- To improve the road infrastructure along this corridor for other road users.
- Air Quality has deteriorated due to unserviceable vehicles.


Lagos Metropolitan Area Transport Authority
Exisiting BRT Lite and Proposed Mile12-Ikorodu BRT Extension
N
Ifako/Ijaye
Agege
Ikeja
Kosofe
Ikorodu
EPE
Alimosho
Oshodi/Isolo
Mushin
Shomolu
Surulere
Lagos Mainland
Lagos Island
Apapa
Ajeromi/Ifelodun
Amuwo Odofin
Oje
Badagry
Eti Osa
IBEJU-LEKKI
1:455,202
Legend
Exisiting BRT Mile 12 - CMS - 22km
BRT Extension Mile 12 - Ikorodu - 13.5km

BRT Route: CMS – Mile 12 - Ikorodu



Transport Challenges in Lagos State



LAMATA Vision & Mission

Vision:

"To be a foremost facilitator of a sustainable and effective integrated transport system"

Mission:

"We plan, facilitate, implement and regulate the provision of world-class, integrated, multi-modal transport systems, infrastructure and services through committed professionals."

LAMATA Strategic Objectives

- The Strategic Plan comprises 19 Priority Objectives which have been grouped into four sets as follows:

  - Road Network Objectives
  - Public Transport Objectives
  - Organizational and Capacity Building Objectives
  - Social Responsibility Objectives

LAMATA Strategic Objectives

- **Road network objectives:**

  - Improved effectiveness and efficiency of the declared road network
  - Improved road safety
  - Attitudinal change among roads users

LAMATA Strategic Objectives

- **Organisational and capacity building objectives:**
  - Attraction, development and retention of quality staff
  - Effective and efficient financial management
  - Enhanced project sustainability
  - Effective coordination and strengthening of transport related agencies
  - Project management effectiveness and efficiency
  - Virile policy oriented research activities

LAMATA Strategic Objectives

- Improved stakeholders involvement and buy-in
- Effective national and international networking

Social responsibility objectives:

- Optimum poverty alleviation impact
- Optimum safeguard of public interest

Strategic Direction

- Strategic Direction based on Transport Master Plan are:
  - Integrated transport
  - Affordable public transport services
  - Public and private partnership
  - New projects
- Location of 28 activity centres identified

LAMATA Responsibilities

- Co-ordination of transport policies in Lagos metropolitan area
- Maintenance of the Declared Road Networks within Metropolitan Lagos
- Design route planning and location of bus shelters, pedestrian and bridges
- Collect and levy transport road user charges
- Recommend on policy issues on public transportation
- Planning , development & regulation of public transportation in Metropolitan Lagos

Environmental impacts management.

The Lagos Air Quality Monitoring Study (2007-2009) revealed that vehicles contribute approximately **43%** to the total level of air pollution in Lagos.

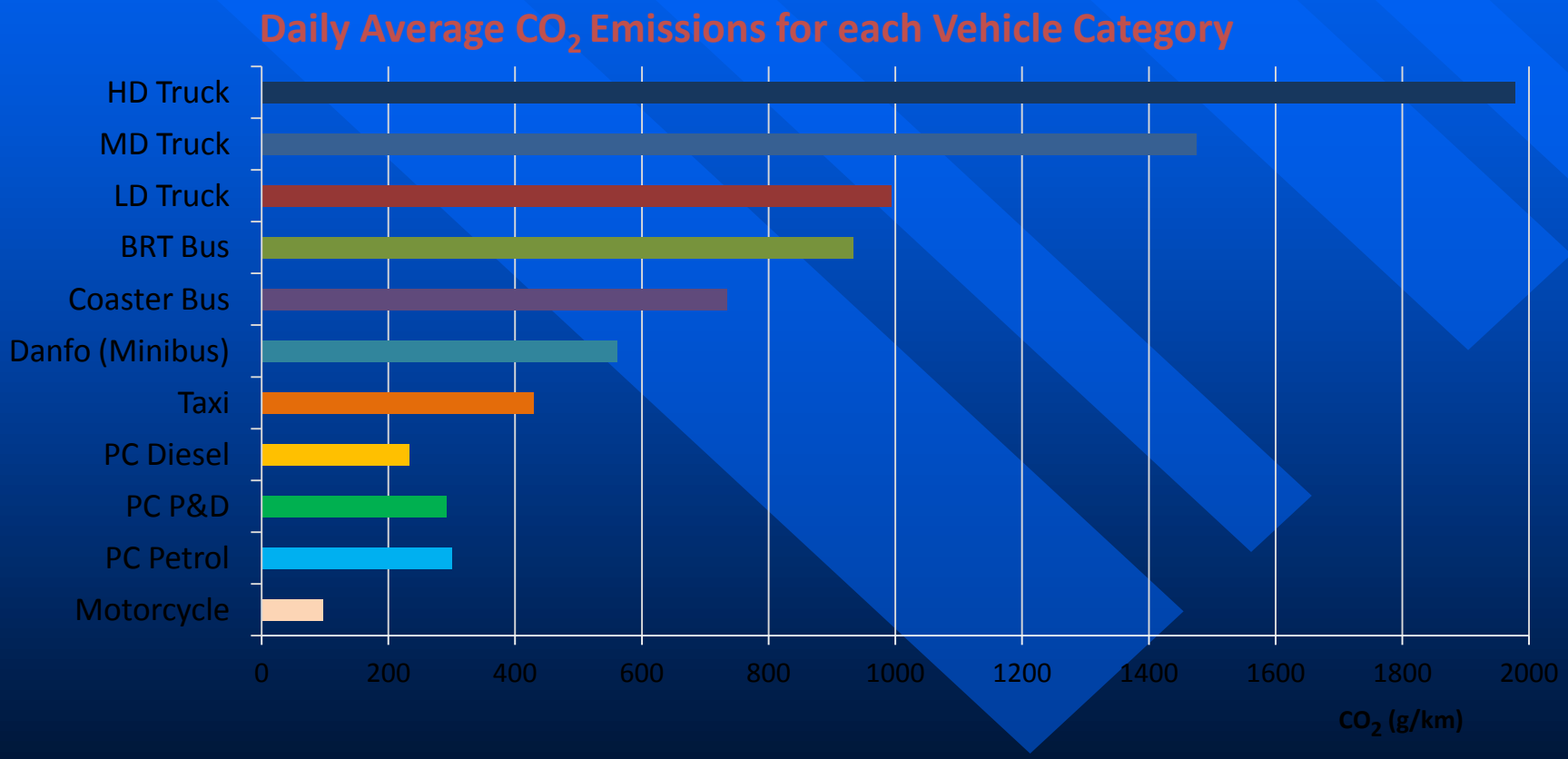
Over a quarter of the transport secto contribution to CO_2 emissions in Nigeria comes from Lagos alone.

The emission factors for many Nigerian vehicles are close to the Euro 2 Standards, which is 3 to 4 times greater than European values

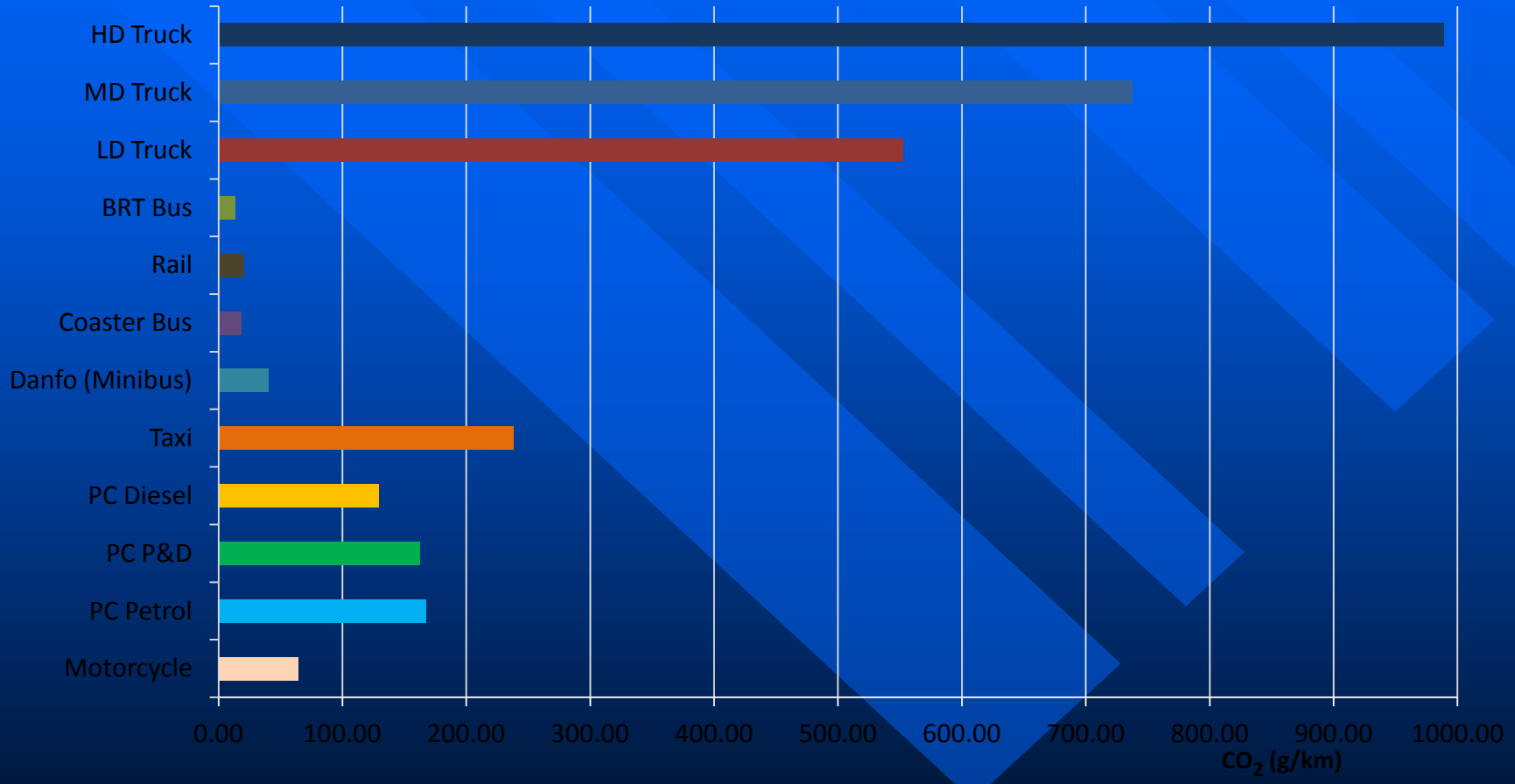
Environmental Impact of Traffic Congestion

- Vehicular traffic is one of the greatest causes of environmental harm in Lagos.
- Traffic consumes energy, and generates noise and harmful emissions.
- Carbon dioxide emissions from traffic are a worldwide problem.
- The quality of the air we breathe is diminished mainly by traffic emissions, because the exhaust emissions are released at a low level.
- Vehicular traffic is the main source of disturbing environmental noise.
- With the increase in the amount of traffic the noise carries increasingly greater distances.

Daily Average CO_2 Emissions in Lagos



Daily Average CO_2 Emissions per Passenger by Vehicle Category (Passenger Carbon footprint)



Key Statistics in Lagos State

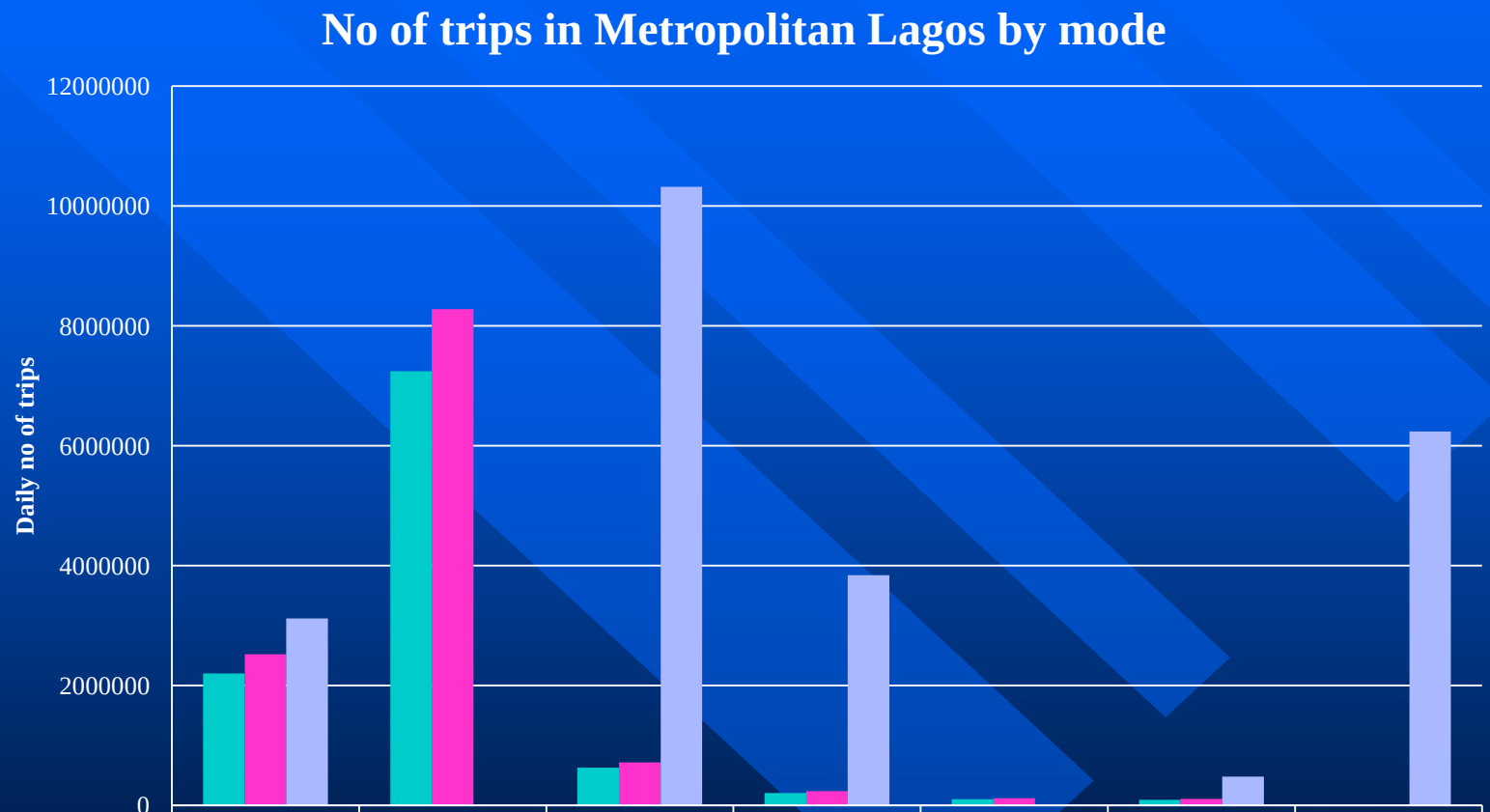
- Average trip length by Public Transport is 9km
- Average trip length by car is 12km
- Proportion of Vehicles with Petrol engine is 85%
- Calculation of GHG Emission for rail assumes heavy urban rail technology (“Metro”) powered by electricity generated from a mix of coal, natural gas, and hydropower, with high passenger use (75 percent of seats filled on average).

BRT new buses for the scheme.

Some info about BRT Lite: CMS – Mile 12

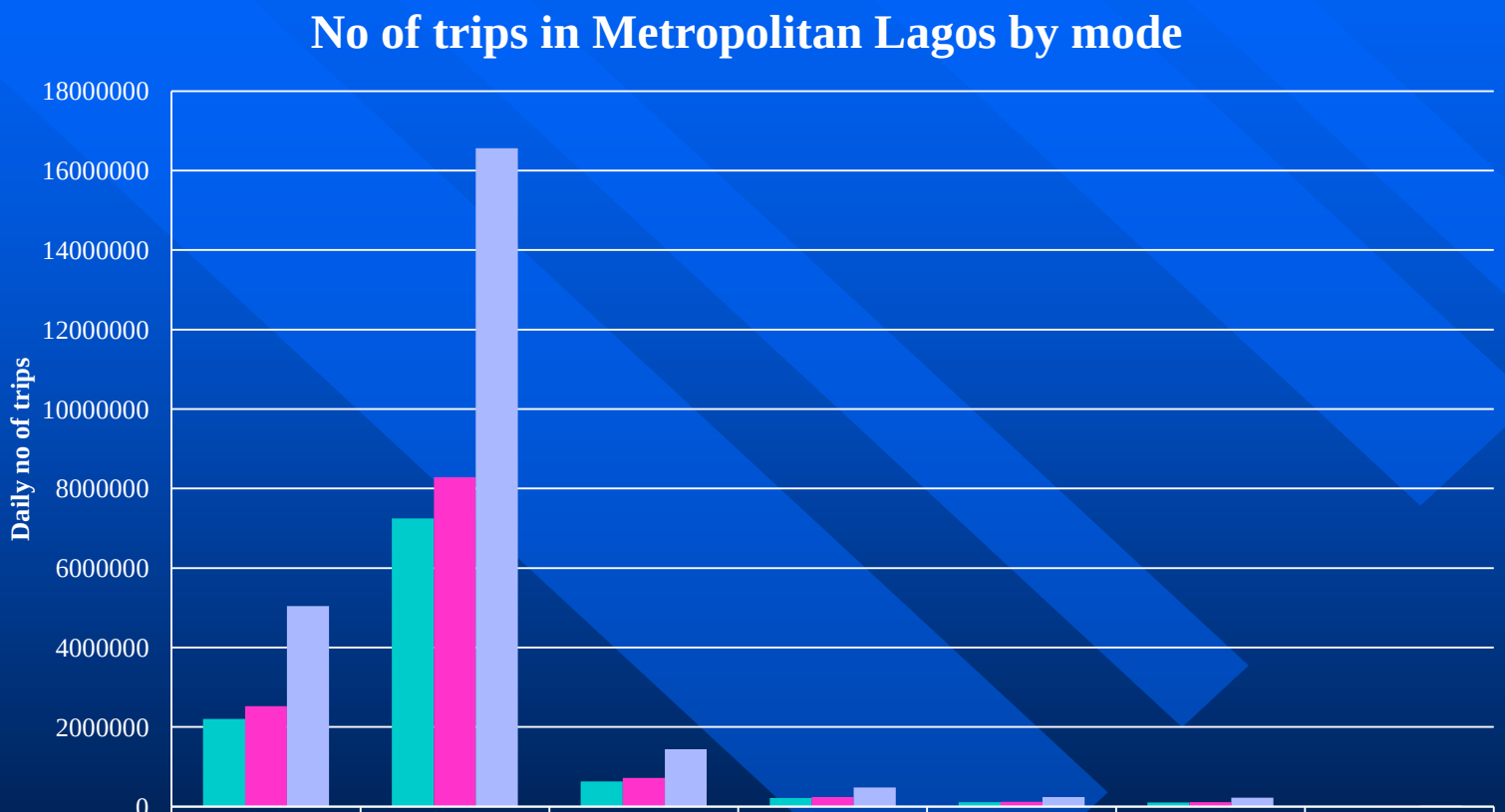
- Commenced March 17, 2008.
- 196 High Capacity Buses (75 pax)
- Hours of Operations – 6am to 10pm daily
- Service Frequency – 150 regular bus services per day
- Daily weekday average of over 130,000 passengers
- Weekend average 54,000 passengers
- Load factor of 867 passengers per bus
- 7 round trips per bus daily
- Average journey time is 50 mins
- Travel time reduced by 30%
- E-Ticketing arrangements
- GHG Emissions reduced by 16%

Daily no of Motorized trips in Metropolitan Lagos with the Transport Master Plan in place



	Car	Minibus	High capacity bus	BRT	Okada	Water	Rail
2008	2205000	7245000	630000	210000	105000	96600	8400
2012	2520000	8280000	720000	240000	120000	110400	9600
2030	3120000	0	10320000	3840000	0	480000	6240000

Daily no of Motorized trips in Metropolitan Lagos (Business as usual)



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2030	5040000	16560000	1440000	480000	240000	220800	19200

BRT EXTENSION: IKORODU - Mile12

DEMAND REVENUE PROJECTIONS

- Daily Demand (both direction) -130 ,000 passengers
- Annual Demand - 27,000,000 passengers
- Total distance (round trip) - 35km
- Peak Vehicle Requirement(PVR) - 320 Buses
- Round trip journey time – 185 minutes
- Daily Revenue - N6.75 Million (45,000 USD)
- Annual Revenue - N 2.0 Billion (13.5 Million USD)

View of Corridor Showing Median BRT Lanes

Results of Implementing the Strategic Transport Master Plan (STMP) in Lagos, Nigeria

- Public transport station within 800 meters of every home
- 2,000 direct and 5,000 indirect jobs created by operating the BRT
- 5,000 direct and 10,000 indirect jobs created by public sector.
- 80% of public transport journeys (less than 25km) completed within 60 minutes
- Over 20,000 Danfos(Minibuses) will be taken off the roads
- 60% reduction in cost per passenger journey
- Construction of the Lekki Free Trade Zone (LFTZ), Lekki Deep-sea port and Badagry port will decongest traffic within the metropolis
- Improved transport network will encourage foreign direct investment (FDI) in the Megacity

Benefits of Public Transport…

Enhances personal opportunities
Saves fuel
Reduces traffic congestion
Provides economic opportunities
Drives community growth and revitalisation
Saves money
Reduces fuel consumption
Reduces carbon footprint

BENEFITS OF THE EXTENSION PROJECT

- Average Public Transport waiting time reduction from 30mins -10mins (66%)
- Journey time savings from 120mins-30mins (75%)
- Road traffic journey time from 120mins- 50mins (58%)
- Reliability Journey Time & Availability, comfortable, and safe.
- Annual perennial Road flooding is removed along the corridor.
- Affordable- maximum fares @ current prices
- Accessible to physically challenged
- 16% Reduction in CO_2
- 50% reduction in PT related accidents

STAKEHOLDER ENGAGEMENT

- Stakeholder engagement is taken seriously on this project. We have held series of stakeholders meetings and community forums to constructively engage the diverse stakeholders on the project – Communities (13 wet lands villages.)along the corridor, schools, businesses and traders, Federal and State MDAs etc
- Approved RAPs and RIPs.
- We have been able to secure the stakeholder buy-in after series of stakeholders engagements meeting on the projects.
- EIA,ESMPs,RAPs,and RIPs,Air quality study have been carried out as at when due and disclosed at info. Shops
- Stakeholders forum.
- 2014.

Stakeholders Engagement.

THANKS FOR LISTENING