

# TURNING LIABILITY INTO AN ASSET THE STORY OF CLIMATE CHANGE AND GREEN ECONOMY IN LAGOS NIGERIA PRESENTATION MADE AT THE 19<sup>TH</sup> PEP MEETING IN DURBAN SOUTH AFRICA

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### INTRODUCTION

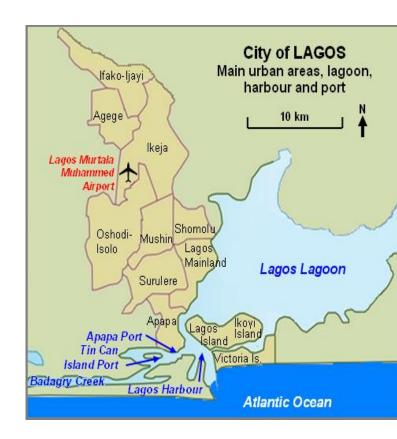
 Nigeria has a peculiar exposure to climate change threats with desertification in the North, soil erosion in the east and flooding/coastal erosion in the west

 Faced with these realities, Lagos State under the dynamic leadership of Babatunde Raji Fashola (SAN) has taken a Stand that CLIMATE CHANGE IS REAL

- Climate change is both a Liability and an asset.
- Mobilised other Governors in the 6 Geo-Political zones in Nigeria to take up the challenge

# **Lagos State**

- Africa's most populated city (20m)
- The safest City in Nigeria
- Population growth rate of 6% per annum
- Projected Population of 25m by 2015 (U.N)
- Spatial distribution 70:30 (Urban: Rural)
- Average of 224 vehicles per kilometre as against the world average of 11 vehicles per km.
- Over 70% of revenue is internally generated
- Est. 25% National GDP of \$43.25bn
- 45% of Nigeria's skilled labour force
- Over 10,000 industrial & commercial concerns
- Over 70% international air traffic
- Over 80% of seaport activities in Nigeria



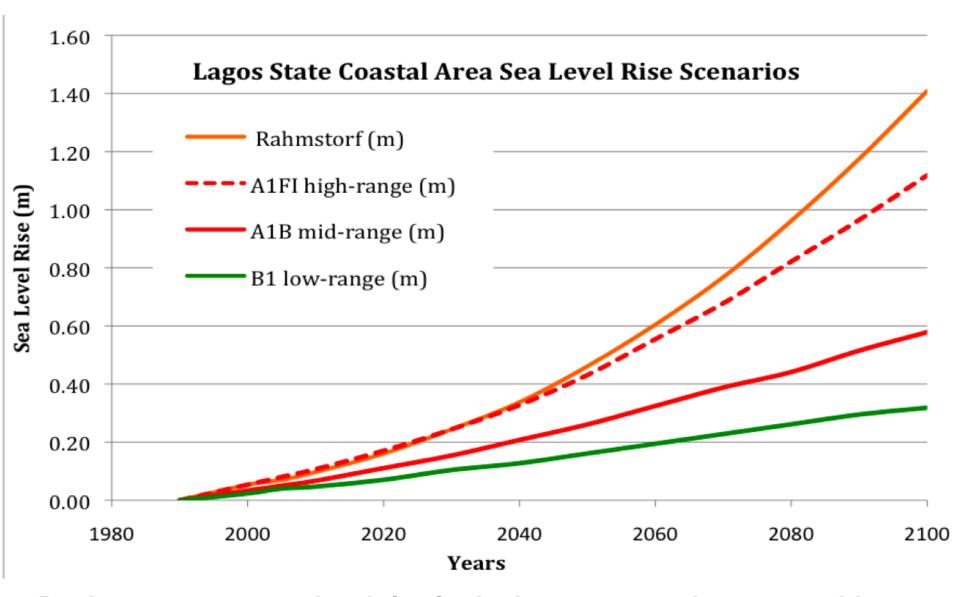
Lagos is Nigeria's corporate, commercial & industrial nerve centre ... providing jobs for people, taxes for the government and entertainment to tourists

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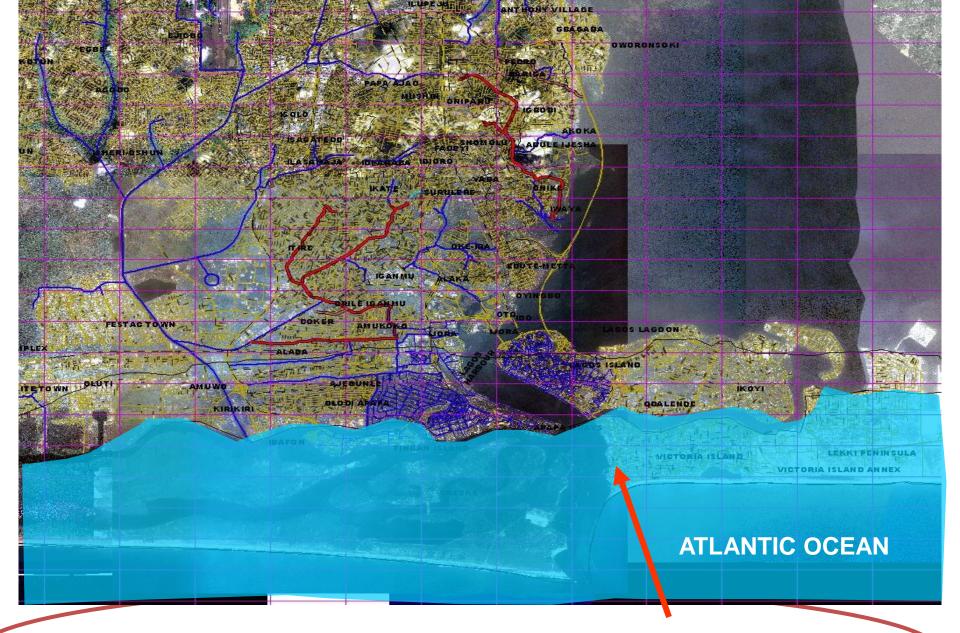
#### CLIMATE CHANGE SCENARIOS IN LAGOS

- THREAT OF RISE IN SEA LEVEL
- IRREGULAR WEATHER PATTERNS
- EXTREME WEATHER EVENTS
- FOOD SECURITY ISSUES
- SECURITY CHALLENGES

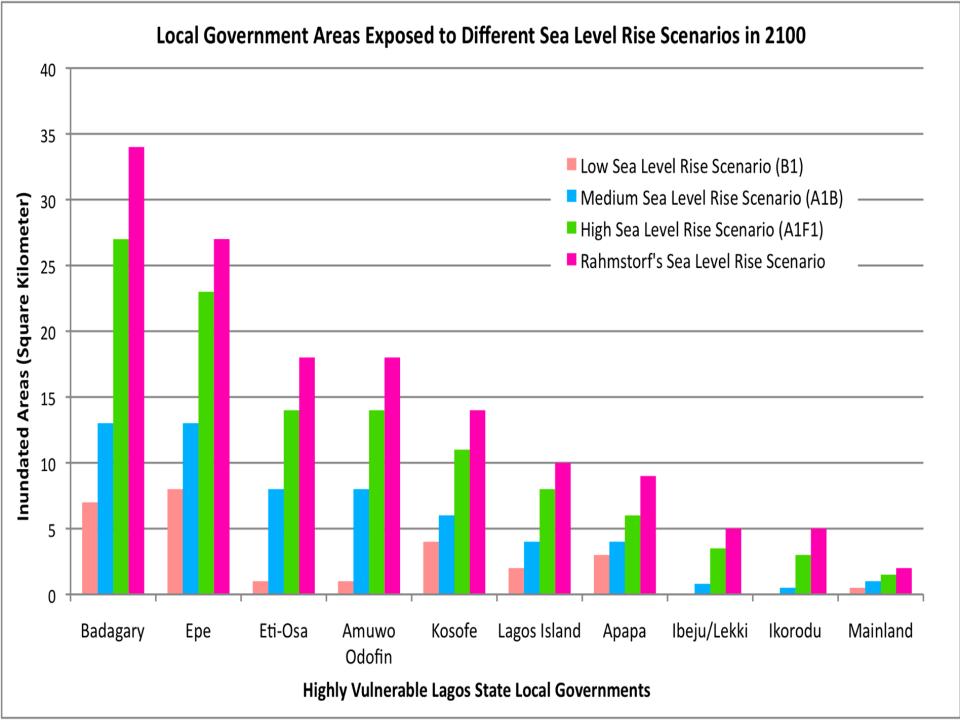
#### Sea Level Rise Level Projection Results (UNIDO 2011)



By the year 2100, sea level rise in the Lagos coastal areas, could range between 0.32 – 1.41m



Areas that may be submerged at 1m rise in sea level Population: 4,005,266

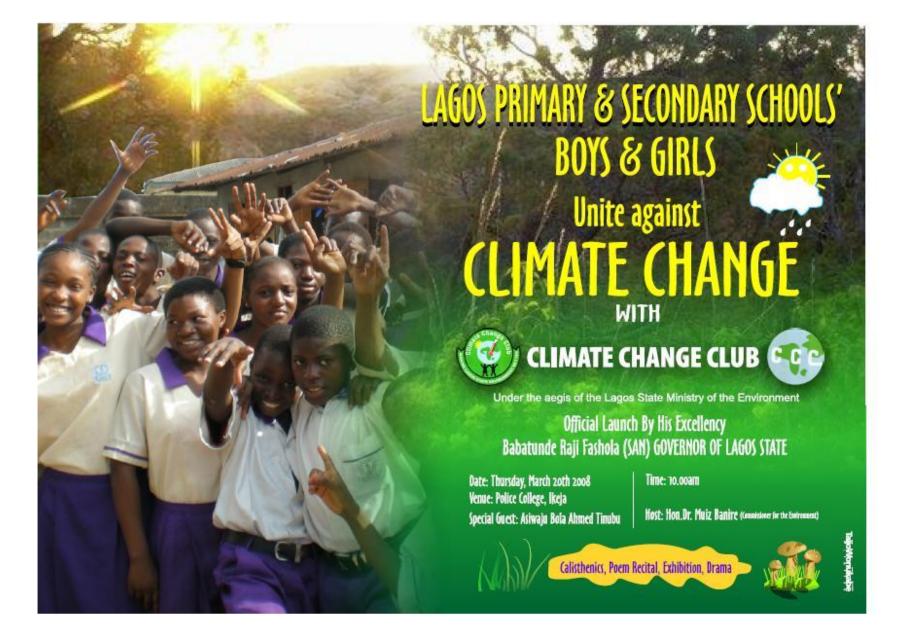


# STRATEGIES ADOPTED TO TACKLE THESE CHALLENGES

- PUBLIC AWARENESS CREATION
- ENERGY EFFICIENCY AND GREEN ECONOMY
- INTEGRATED TRANSPORTATION SYSTEM
- SHORE LINE PROTECTION AND EKO ATLANTIC CITY PROJECT
- INTEGRATED WASTE MANAGEMENT SYSTEM
- POLICY FORMULATION AND LEGISLATION

#### **CLIMATE CHANGE AWARENESS CREATION**

- To combat climate change awareness challenge, we use opportunities of the following programmes to organise public lectures to sensitise the public on the causes, effects and solution to climate change.
   They include:
- School Advocacy Programme
- Annual Climate Change Summit
- Sensitization programme for the Informal sectors inc with NGOs
- Sensitization programme with the Religious Communities
- Docu-drama tour with Ogun-Ayika,
- Various Climate Change workshops with support from UNDP







## **ME AND MY TREE** amongst CCC members



LAGOS STATE SUMMIT ON CLIMATE CHANGE - Due to the high level of ignorance among our people about climate change, the Lagos State Government apart from media campaign has institutionalized annual Climate change summit.



ONE OF THE PLENARY SESSIONS AT THE MAIDEN SUMMIT ON CLIMATE CHANGE, 2009

# Gov. Babatunde Raji Fashola with co-host Governors during the Lagos State Climate Change Summit's Governors' Session, 2010



#### 6<sup>TH</sup> LAGOS CC SUMMIT WITH DAVID CADMAN OF ICLEI



# DOCU-DRAMA TOUR WITH OGUN AYIKA/EVT AMBASSADORS





#### THE HUGE ENERGY CHALLENGE

Nigeria's per capita electricity consumption is 4 times less than the African average and about 19 times less than the world's average

Continent/Country	Per Capita Electricity  Consumption (kWh/capita)
World (Average)	2,596
Africa (Average)	563
Nigeria	136
Kenya	144
Senegal	152
Ghana	271
Gabon	932
Egypt	1,226
Libya	3,336
South Africa	4,848

Source: IEA, Key World Energy Statistics, (2007)

# IPP Projects in Lagos to the Rescue

#### Power Inadequacy...

- Availability of power is critical to quality public service delivery
- Self Generation is prevalent as a result of inadequate power
- Our state-wide energy audit reveals that every property has at least one generator
- Lagosians are powering ourselves at an average cost of N44/kWh

#### ...The Lagos Solution

- IPPs based on Public/Private partnership model
- Lagos IPPs provide power to government facilities
- There is a total of 3 completed and 2 on-going IPP projects
- Total capacity = 37.35MW
- Lagos IPPs have eradicated
   258 generating sets so far

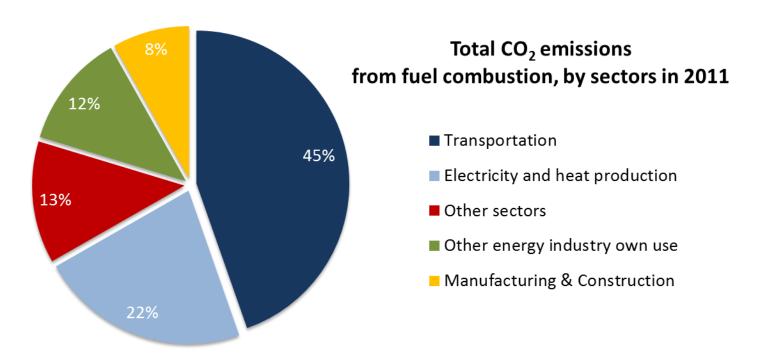
# Lagos State IPPs and Climate Change

- Eradicates the need for diesel
- Reduction in annual CO<sub>2</sub> emissions by 20,830 tons which is equivalent to about planting 921,000 tropical tress
- On going IPP projects is aimed at reducing 9,471 tons of CO<sub>2</sub>per year which is equivalent to planting 419,000 tropical tress
- Reduces other forms of GHG like CO and Methane

#### **TRANSPORTATION**

#### **National Overview**

- In 2011, Nigeria had the fourth highest CO<sub>2</sub> emission from fuel combustion in Africa, after South Africa, Egypt and Algeria respectively.
- The transport sector, with a 45% share, was the largest contributor to a nationwide CO<sub>2</sub> emission from fuel combustion of 52.8 million tonnes that year.



Source: IEA

### A TYPICAL RUSH HOUR TRAFFIC IN LAGOS



#### Towards a Sustainable Urban Transport System in Lagos

 Develop a fully integrated mass rapid transit system to cover activity centers identified in the mega city region

Six Rail Lines

— One Monorail Line

– 16 BRT Routes

Over 20 water routes

- Key road projects
- Introduce a common ticketing system to aid integration of public transport modes.
- Develop the waterways transport network to integrate with Rail and BRT.
- Develop a ring road around Metropolitan Lagos to take pressure away from the mainland.
- Introduce traffic control centers to optimize the use of the existing transport network.

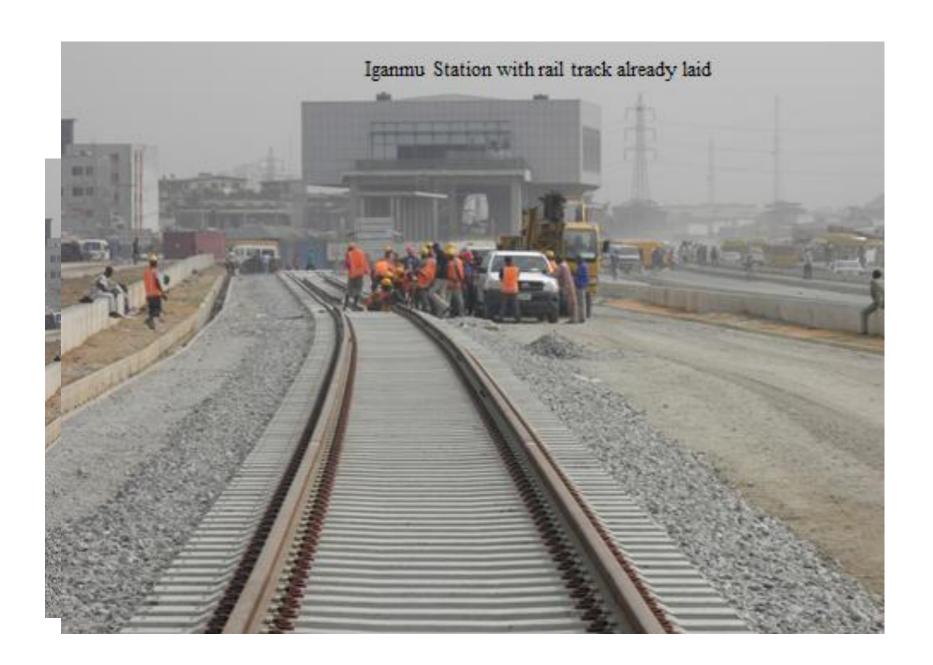
#### Adoption of an inter-modal system of transportation. Vis: BRT, Light Rail and Water transportaion











#### waste management strategy (LAWMA)

To strengthen LAWMA for effective waste management, it was equipped with the following:

- 150nos Compactor Trucks out of the 600nos projected
- 40 Skip Vehicles
- 6nos out of 20 Transfer Loading Stations have been built.
- •The latest being that of Simpson equipped with 9 trailer hoists,
- •18 trailer trucks,
- •6 static compactor hoists and
- •30 static compactor bins
- The TLS has capacity for storing and treating a minimum 600 metric tonnes of waste per day and at full capacity 1000 metric tones.

Trailer trucks used to convey refuse from Transfer loading Station.



# Compactor trucks for waste transportation



Waste-to-wealth programme



### RISE IN SEA LEVEL

**EKO Atlantic City development** 

# Bar Beach 1905



# Bar Beach 2005



# Encroachment of sea water



# SHORE LINE PROTECTION



- The overall area to be reclaimed is 820 Hectares or 8,200,00m2.
- The total length of the Development is 6,500m and on average 1,260m wide.
- To the Southern Boundary is the main Revetment 6,500m in length.
- To the East Boundary is a Revetment of 920m in length and incorporates a large Marina with access to the sea.
- To the Northern Boundary is the existing Victoria Island and more specifically the existing Ahmadu Bello Way highway which is planned to be extended to an 8 lane highway known as Coastal Road under proposed Government planning.
- Incorporated in the Development will be central waterway 30m wide providing water transport facilities connecting 3 Marinas.

# DREDGING OPERATIONS FOR EKO ATLANTIC CITY



# SANDFILLED PORTION OF EKO ATLANTIC CITY over 520 hectares reclaimed



# EKO ATLANTIC CITY LAY OUT



## **CONCLUSSION**

- Eko Atlantic City Employs 2,000 People
- Independent Power Projects 259 people
- Tree planting and Landscaping initiatives 56,019
- Sources of alternative energy such as solar panels being manufactured and installed are creating new knowledge, new skills and new job.... Gov. Fashola at the 6th Lagos CC Summit

