



THE PRESIDENCY



# LAPSSET CORRIDOR DEVELOPMENT AUTHORITY

## LAMU PORT – SOUTH SUDAN – ETHIOPIA TRANSPORT (LAPSSET) CORRIDOR PROJECT

*Building Africa's ' Transformative and Game Changer Infrastructure to Deliver a Just and Prosperous Kenya*

PRESENTED DURING KENYA – UK INVESTMENT CONFERENCE, LONDON, 3<sup>RD</sup> DECEMBER 2013.

by: **Silvester KASUKU**, MBS, CMILT

Director General/CEO

**I(enya (.)**

**KENYA**  
**VISION 2030**  
TOWARDS A GLOBALLY COMPETITIVE  
AND PROSPEROUS NATION



- . Africa the new World Growth Frontier
- . Resourceful Africa

# AWAKENING

## THE LARGEST & LAST ECONOMIC GIANT!!

# AFRICA!!

# Kenya (•)

## AFRICA'S OIL RESOURCES



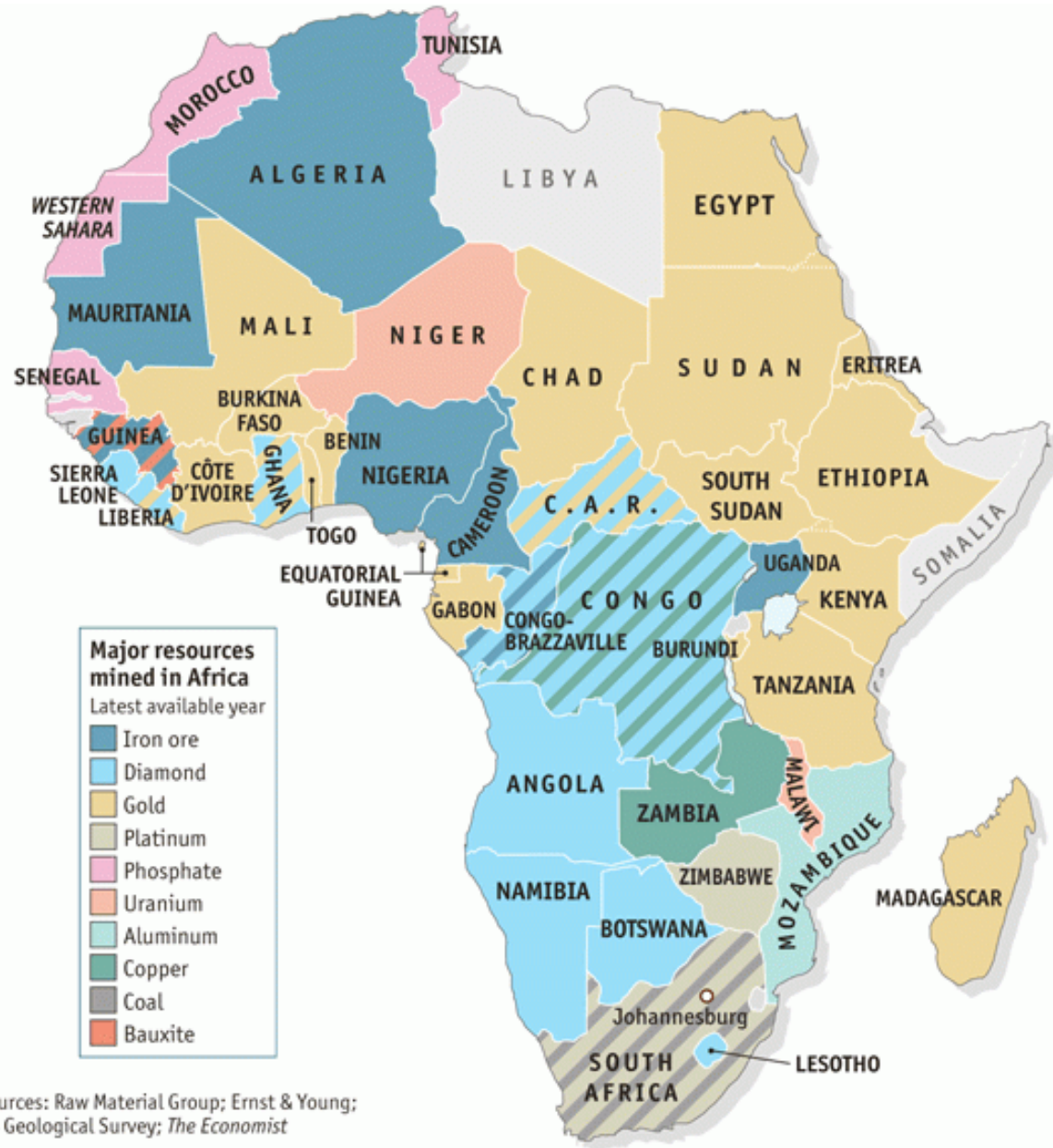
**KENYA**  
**VISION 2030**





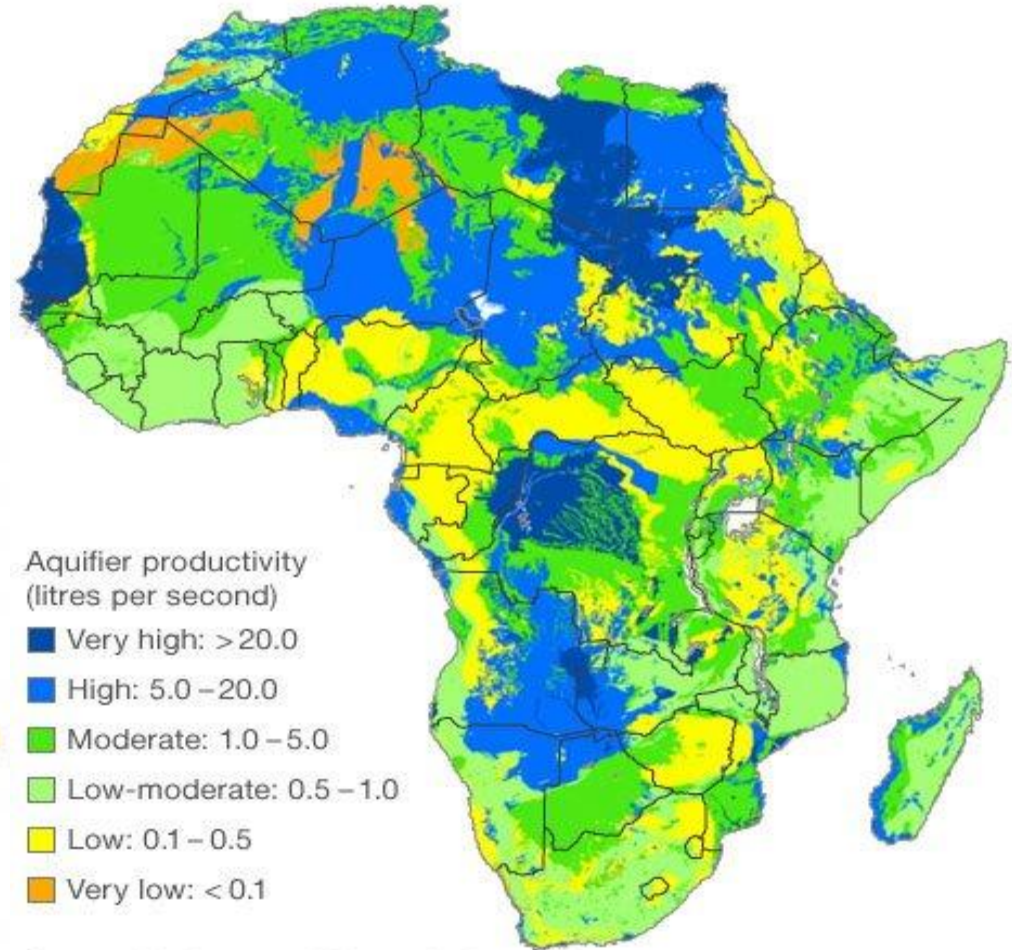
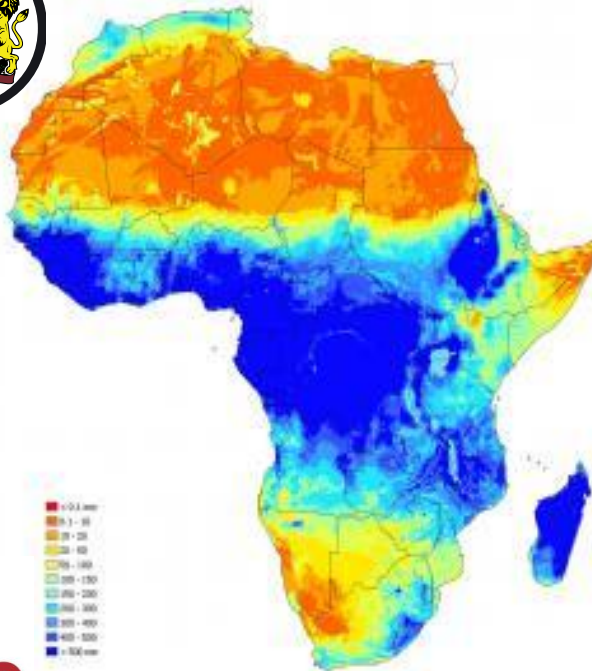
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## MINERALS



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## AFTRICAS NATURAL RESOURCE



Source: Environmental Research Letters

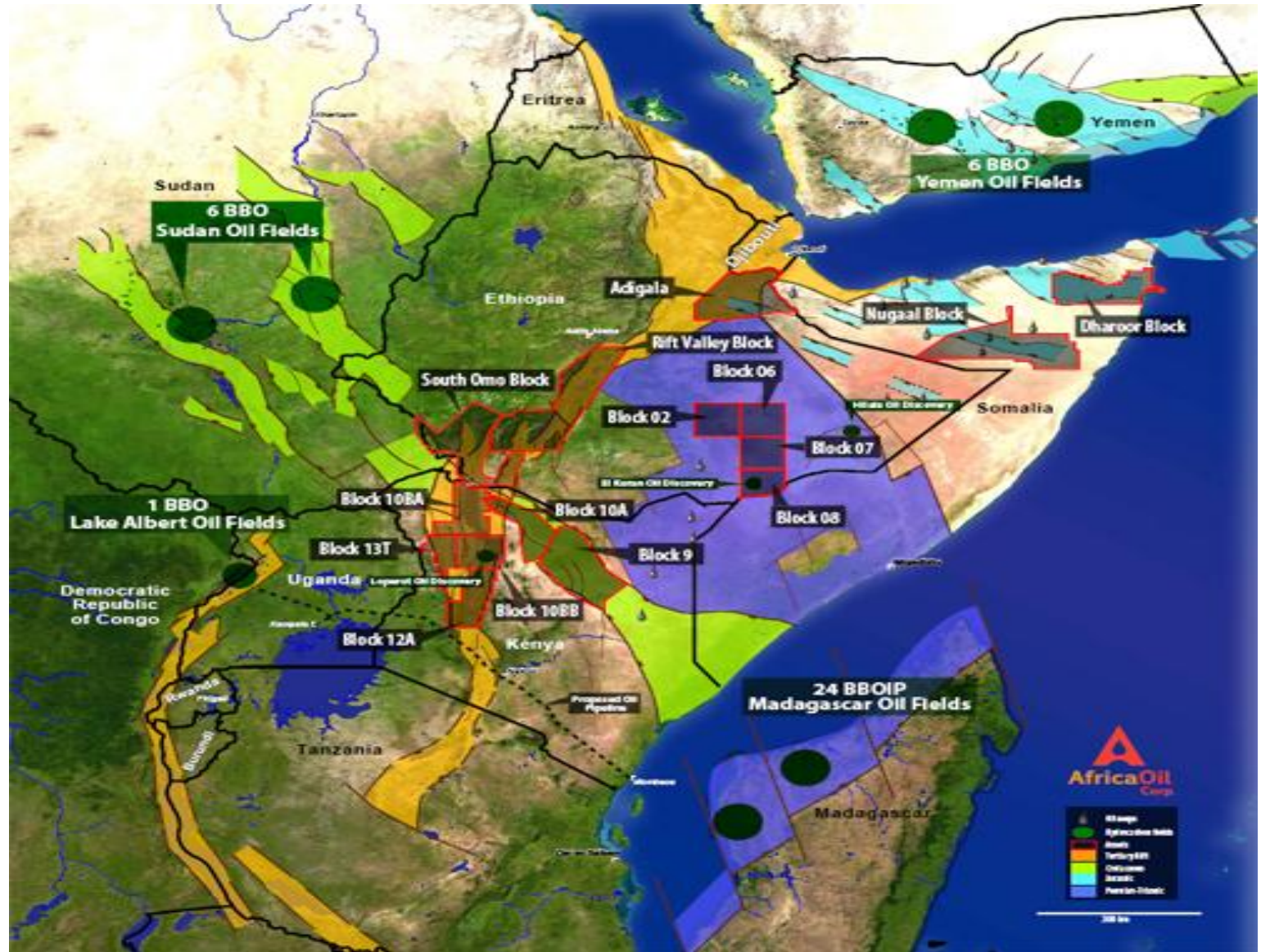


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## FEATURES OF OIL RESOURCE



KENYA  
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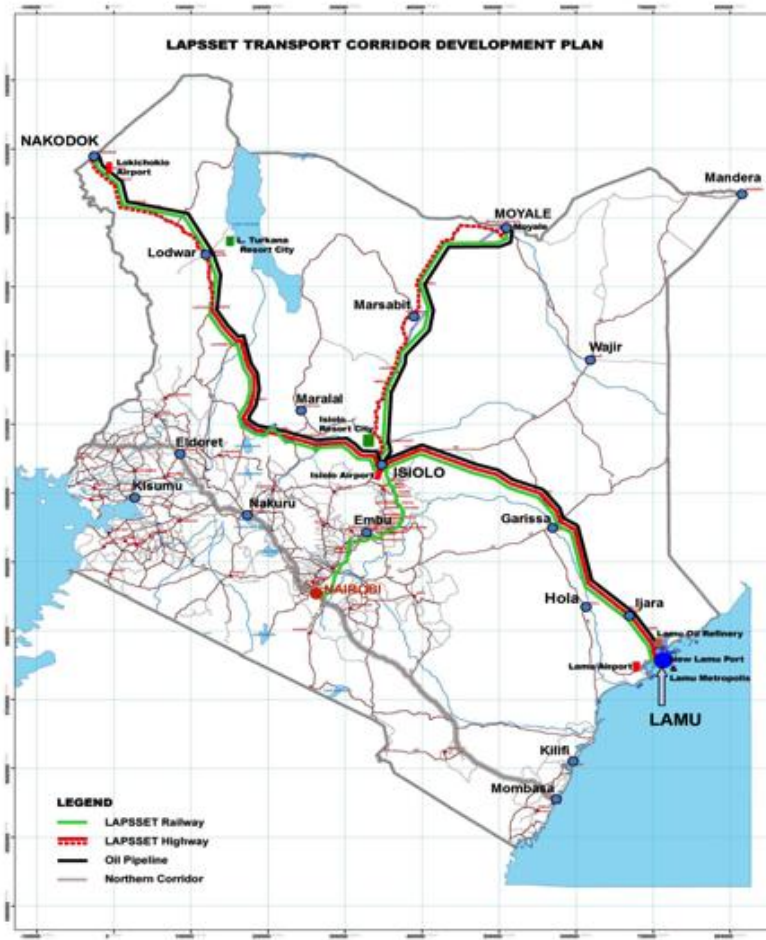
# THE CASE OF LAPSSET CORRIDOR PROJECT

Kenya (.)

KENYA  
VISION 2030



# LAPSSET CORRIDOR PROJECT: PROFILE



	PROJECT COMPONENTS
1	Lamu Port
2	Railway Line
3	Highway
4	Crude Oil Pipeline Product Pipeline
5	Oil Refinery
6	Resort Cities
7	Airports
	SUPPORT INFRASTRUCTURE High Grand Falls
---	Lamu Metropolis



## LAPSSET CORRIDOR PROJECT: OBJECTIVES

- LAPSSET Corridor Project is a '*Kenya Vision 2030*' flagship project.
- LAPSSET Corridor Project is the first largest *Game Changer Infrastructure Project* the government has initiated and prepared under Vision 2030 Strategy Framework, without external assistance and will have the following benefits:
- Foster **transport linkage** between Kenya, South Sudan and Ethiopia.
- Dynamic promotion of regional **socio-economic development** along the transport corridor especially in the **Northern, Eastern, North-Eastern and Coastal** parts of Kenya. Northern Corridor currently Kenya's only economic corridor;

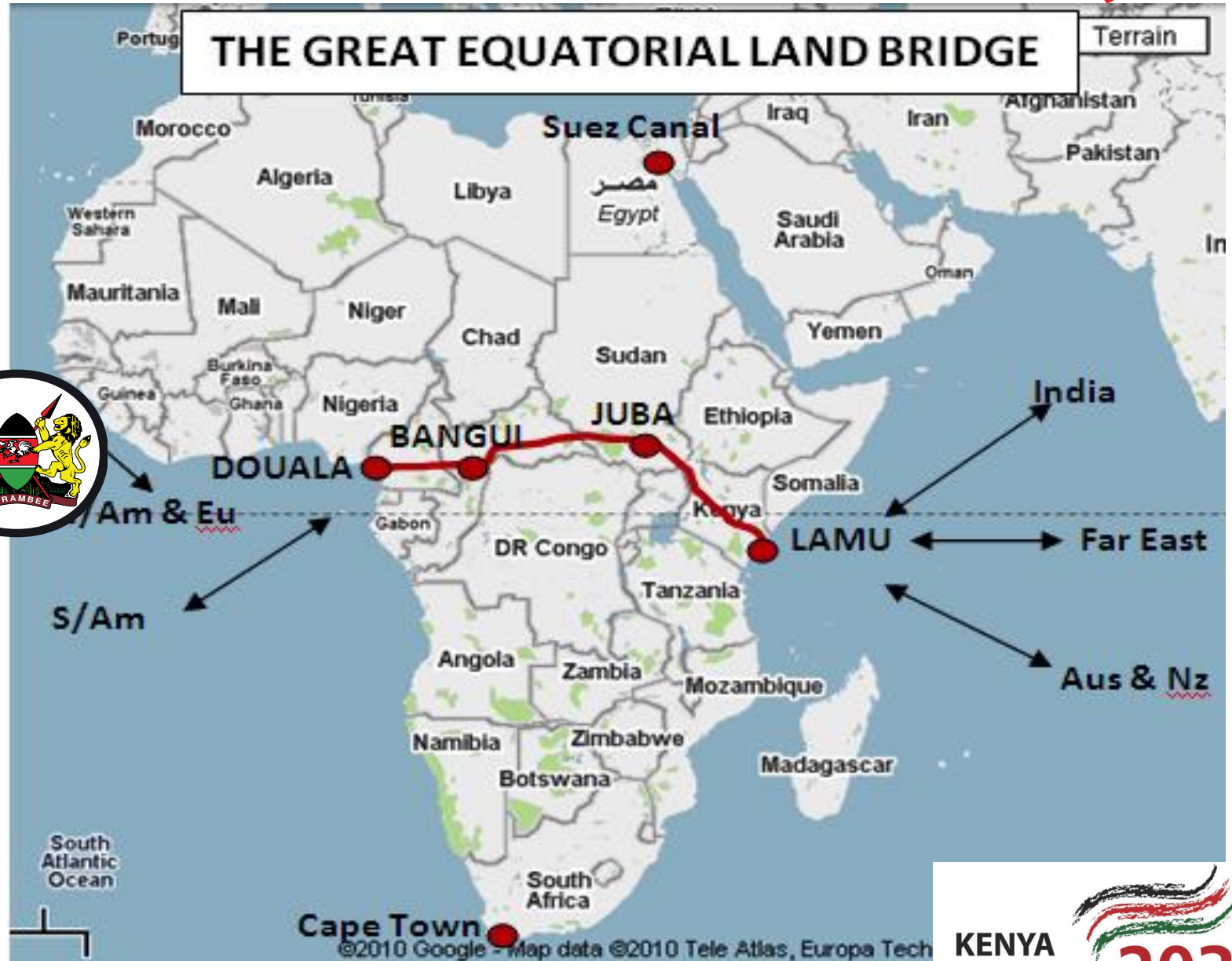


## LAPSSET CORRIDOR PROJECT: OBJECTIVES



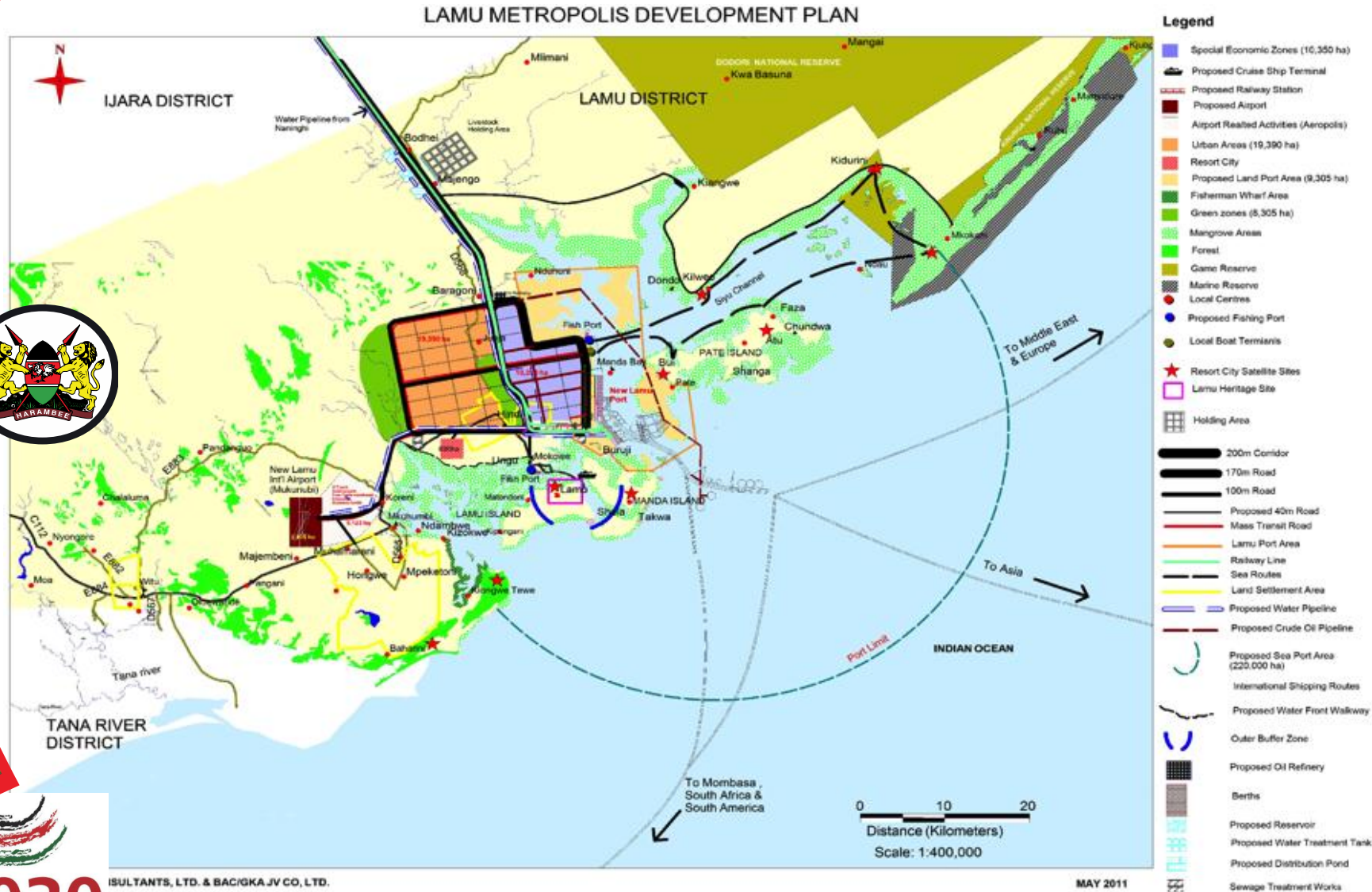
- The LAPSSET Corridor Project covers over half of the country with a planned investment resource equivalent to half of Kenya's GDP for the core investment alone. Conservative feasibility statistics shows that the project will inject between 2% to 3% of GDP into the economy.
- Statistics estimate that contribution of the LAPSSET Corridor Project to the country's economic growth might even range between 8% to 10% of GDP when generated and attracted investments finally come on board.
- This view is supported by the fact that new investments of the magnitude of LAPSSET Corridor Project in hitherto low developed areas usually yield higher growth figures.

# Kenya (.)





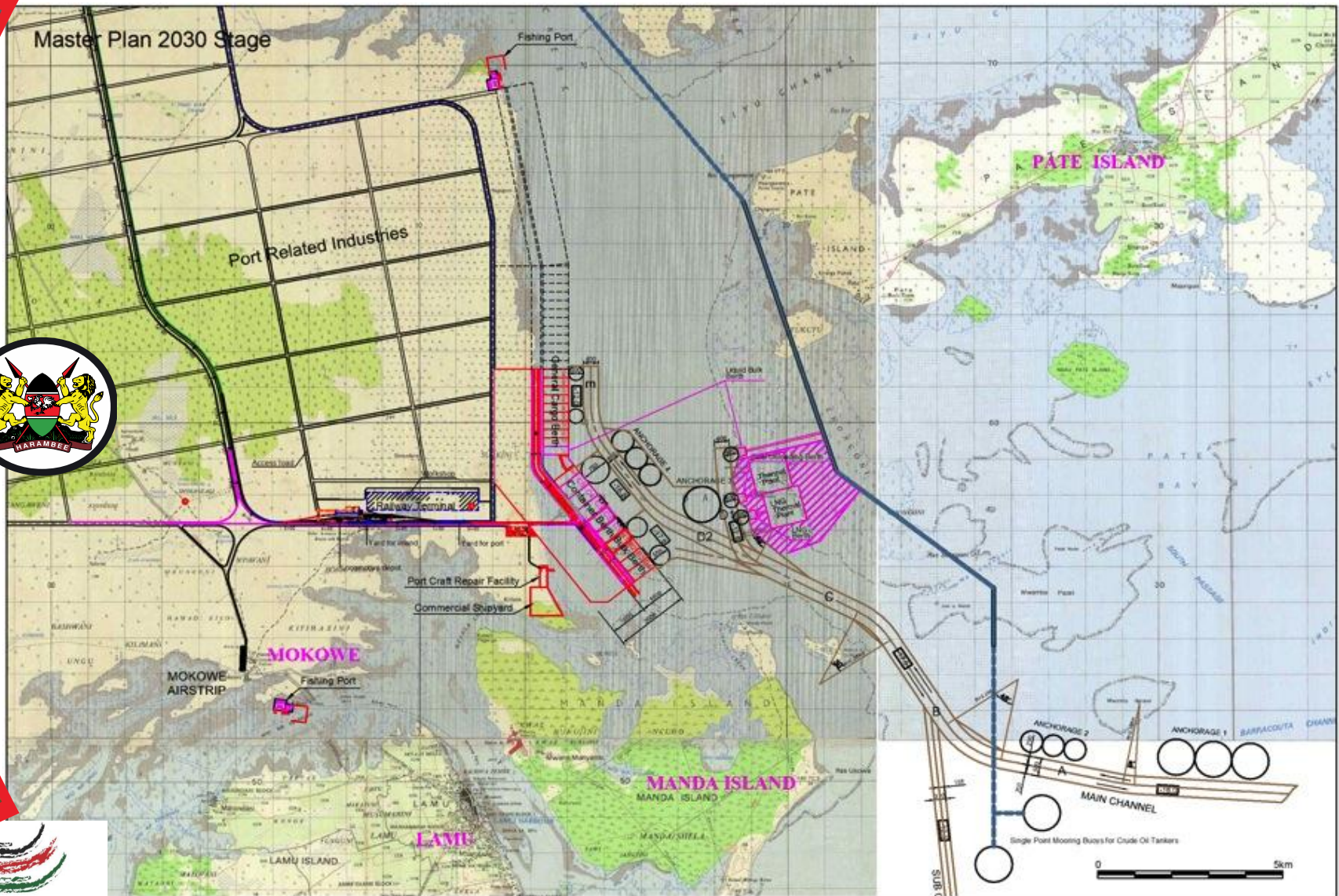
## LAPSSET PROJECT COMPONENT 1: LAMU PORT





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## BERTH ALIGNMENT

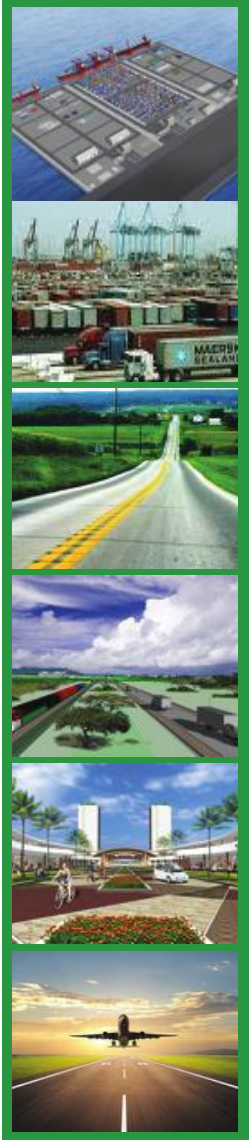




## Detailed Design of Port Facilities (continued)







## Cargo Volume Forecast of Lamu Port

(thousand tonnes/year)

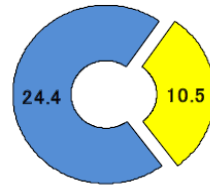
Cargo by Type	2010 (Mombasa)	2020 (Lamu)	2030 (Lamu)
Bulk Cargo	3,897	2,603	4,682
Break-bulk Cargo	1,777	2,370	4,192
Livestock	---	18	45
Liquid Cargo	6,481	529	765
Refrigerated Cargo	---	64	95
Containerized Cargo	6,809	7,914	14,082
<b>Total Port Cargo Volume</b>	<b>18,934</b>	<b>13,500</b>	<b>23,860</b>
Laden Container (thous. TEU)	460	720	1,313
Empty Container (thous. TEU)	235	250	471
<b>Total Container (thous. TEU)</b>	<b>695</b>	<b>970</b>	<b>1,780</b>

## LAPSSET Corridor Framework

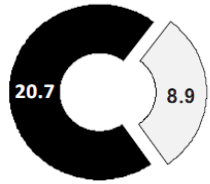
### (1) Transport Routes and Port Cargo Demand

Port Cargo Volume (Mil. Ton.) in 2030

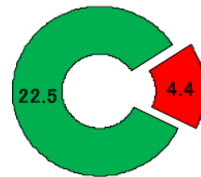
**ETHIOPIA  
(Djibuti)**  
34.9 million



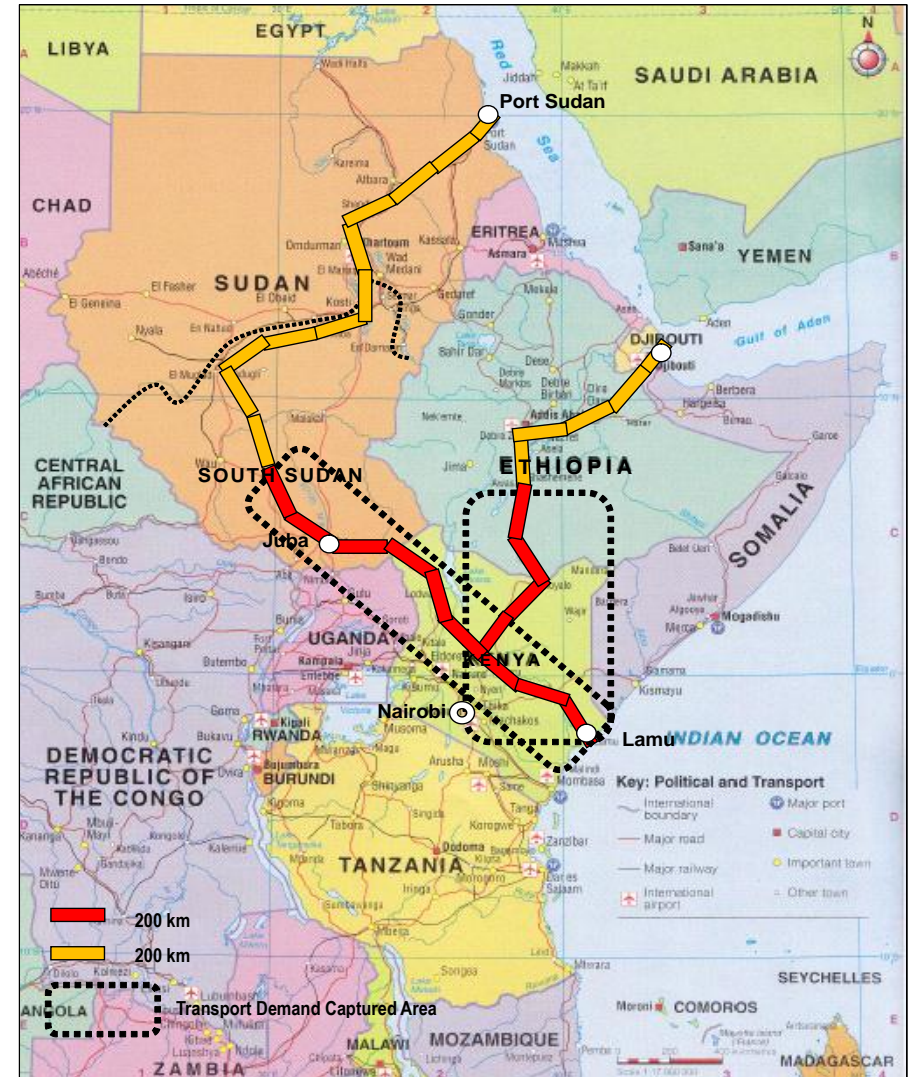
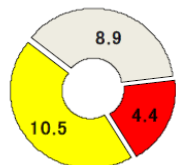
**SOUTHERN  
SUDAN  
(Port Sudan)**  
29.6 million



**KENYA  
(Mombasa)**  
26.9 million



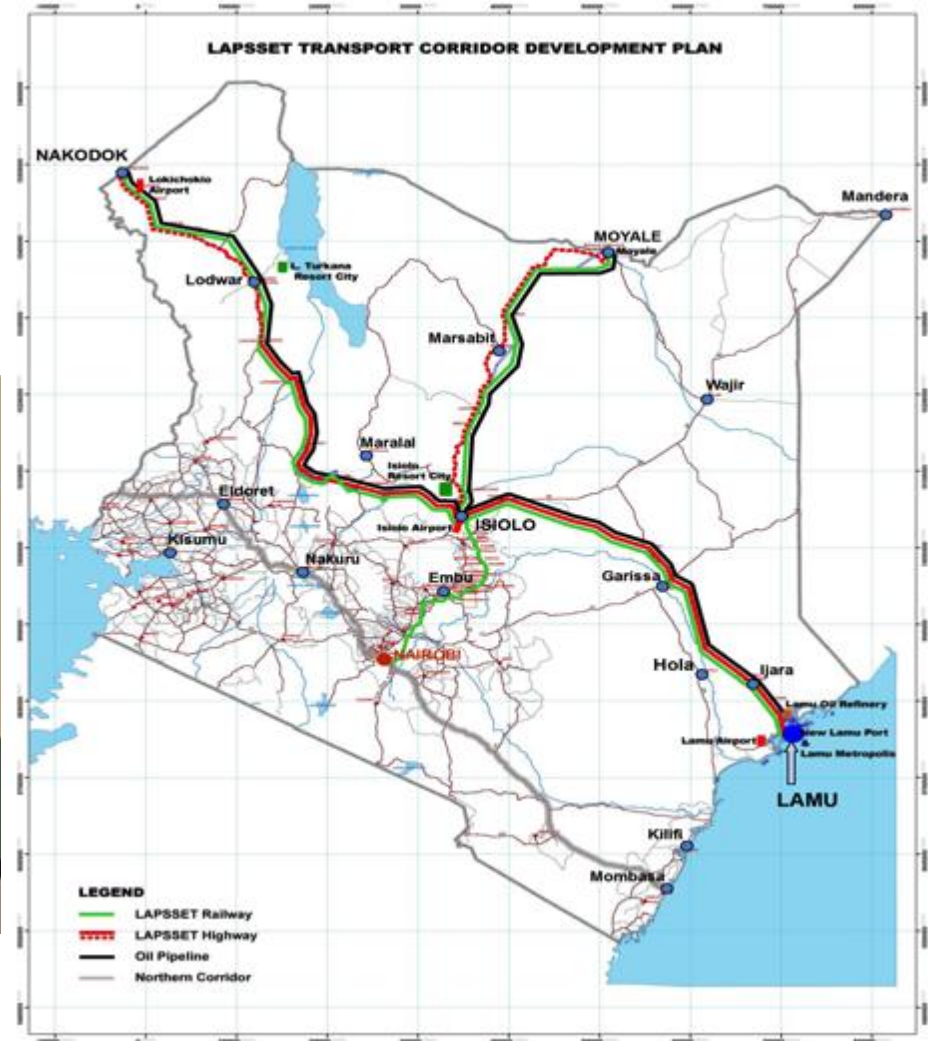
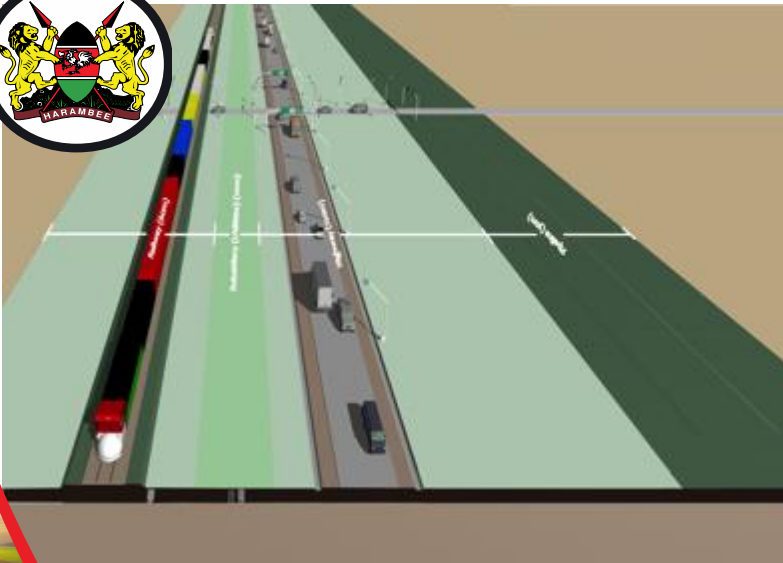
**KENYA  
(LAMU)**  
23.0 million



(Note) Cargos are generated by the LAPSSET Corridor

## LAPSSET PROJECT COMPONENT 2: HIGHWAYS

Highway : 100m :






Kenya

# LAPSSET PROJECT COMPONENT 3: RAILWAYS





**Lodwar**

## Moyale

## Marsabit

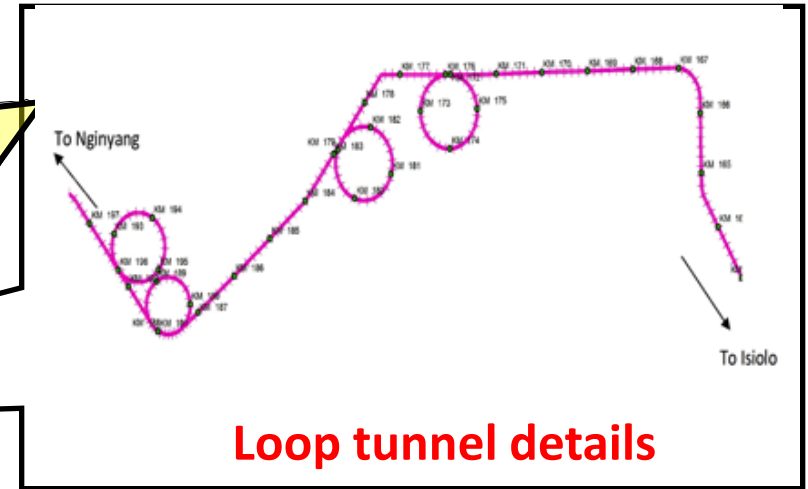
**Nginyang**

## Isiolo

## Garissa

● **Nairobi**

## Lamu



## Loop tunnel details

- 

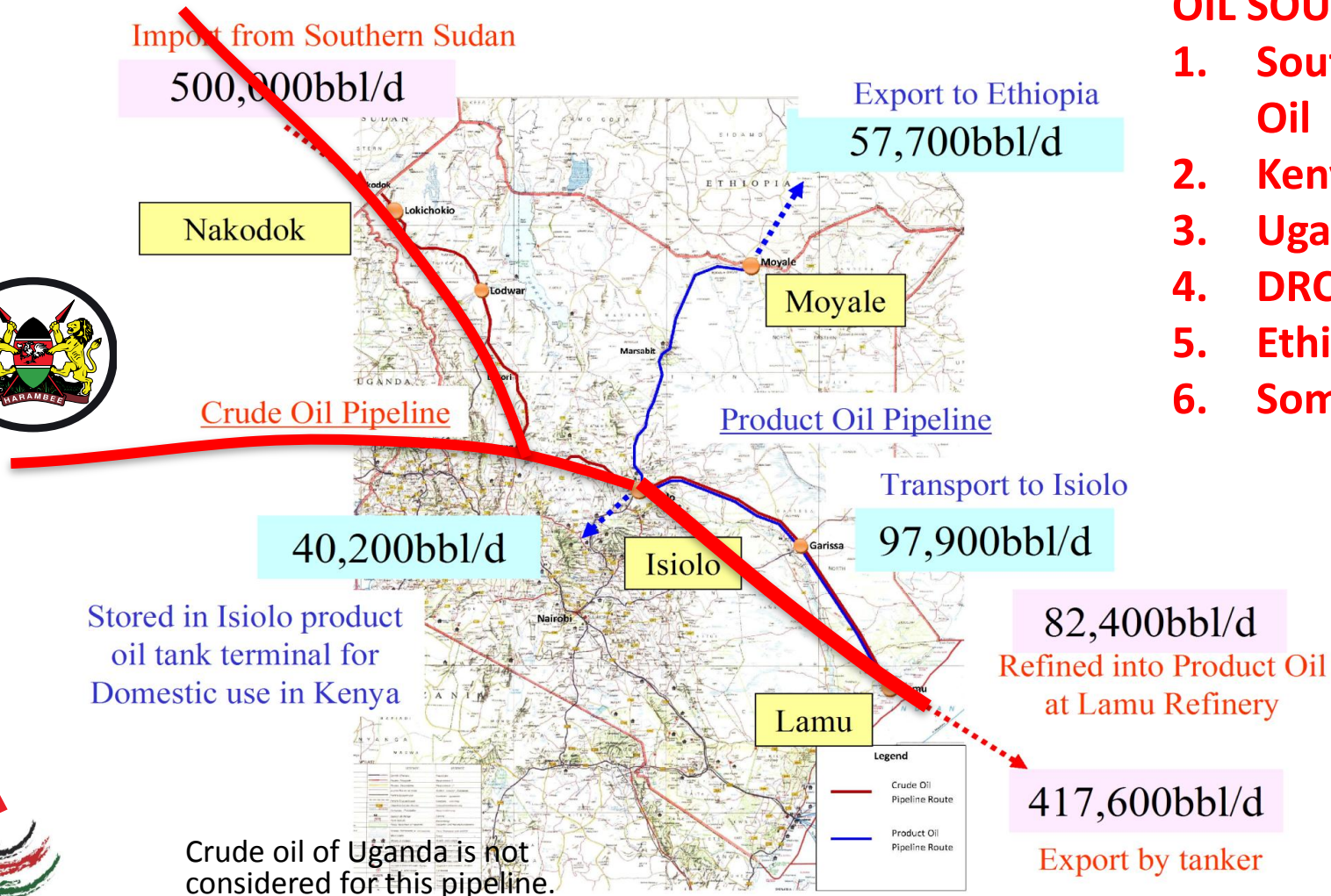


## LAPSSET PROJECT COMPONENT

### 4: OIL PIPELINE 5: REFINERIES

#### OIL SOURCES

1. South Sudan Oil
2. Kenya Oil
3. Uganda Oil
4. DRC Oil
5. Ethiopia Oil
6. Somalia



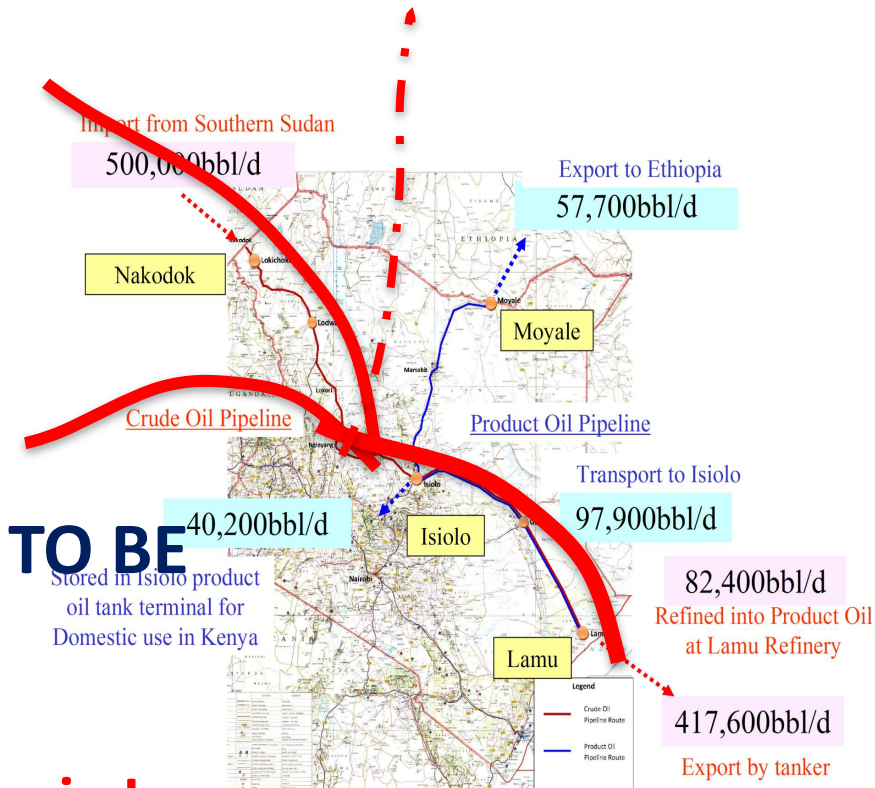


### OIL SOURCES

1. South Sudan Oil
2. Kenya Oil
3. Uganda Oil
4. DRC Oil
5. Ethiopia Oil

### INDUSTRIES EXPECTED TO BE ESTABLISHED

1. Refineries
2. Petrochemical Industries in Lamu and Isiolo
3. Manufacturing Industries along the Corridor
4. Thermal Power Generation



**Kenya** (•)

# LAPSSET PROJECT COMPONENT 6: RESORT CITIES





## Conceptual Design of Isiolo Resort City (Kipsing Hill)

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## Resort City in Lake Turkana

Kalokol River



Ellye



Sibilo National Park



Central Island National Park



South Island National Park



Loiyangalani



## Tourist attractions





## Bird's Eye View of Resort City in Lake Turkana

(Eliye Springs)





# Conceptual Design of Resort City in Lake Turkana

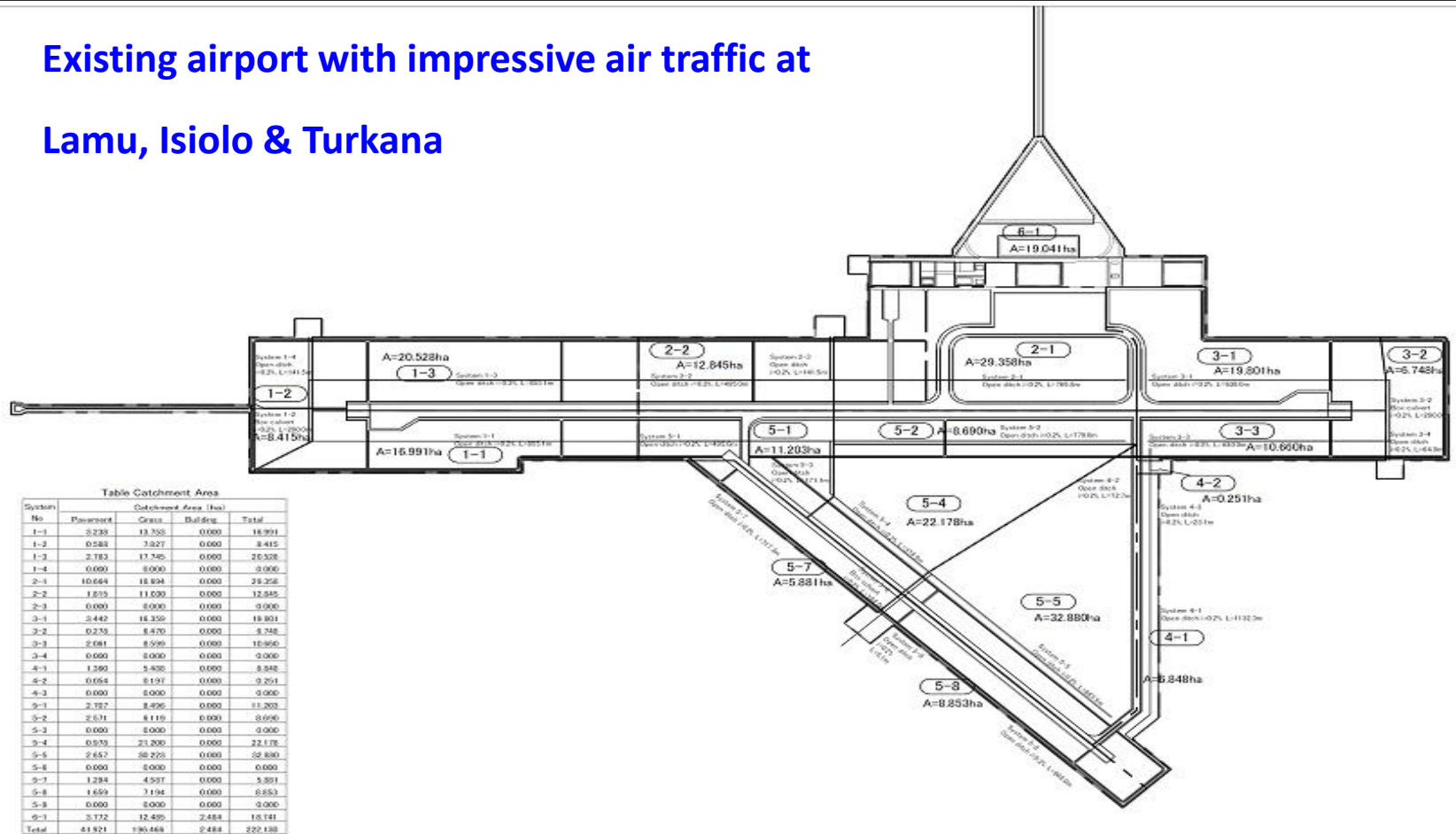
Kenya (.)

(Eliye Springs)



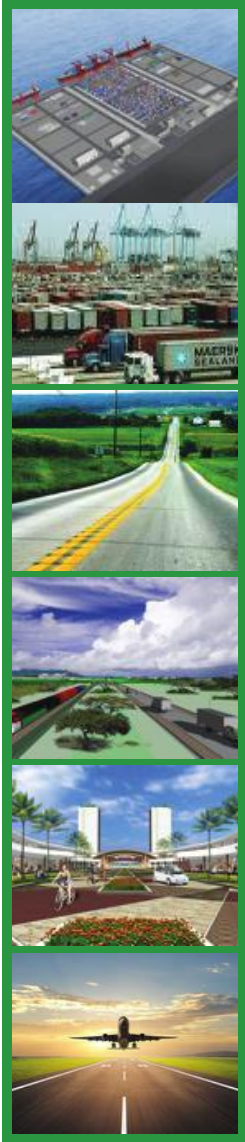
# LAPSSET PROJECT COMPONENT 7: AIRPORTS (Lamu, Isiolo & Lokichokio)

Existing airport with impressive air traffic at  
Lamu, Isiolo & Turkana

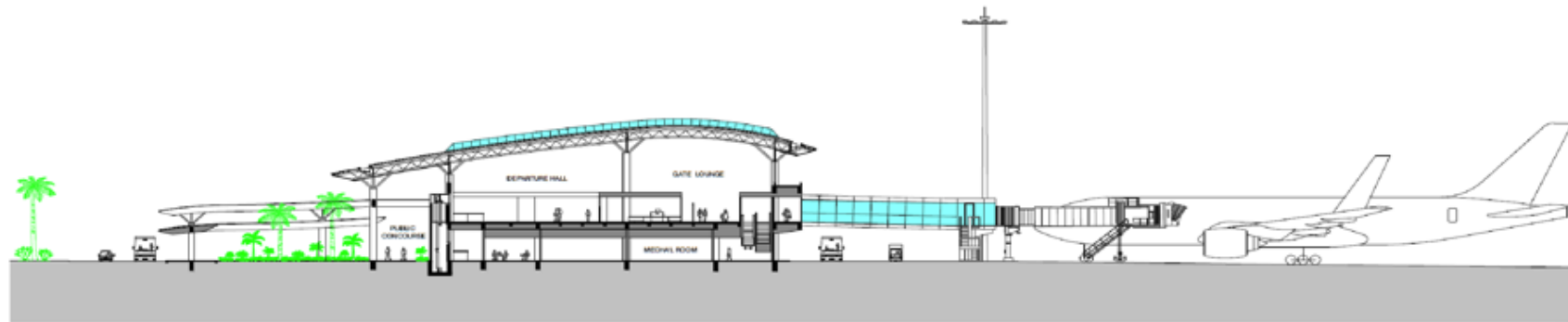




## (2) Passenger Terminal Building Plan at LIA



**Elevation - North**

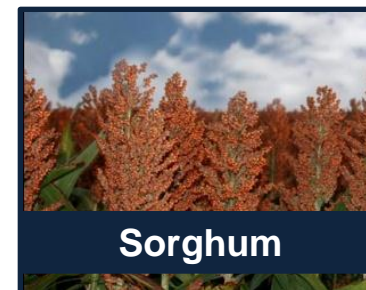
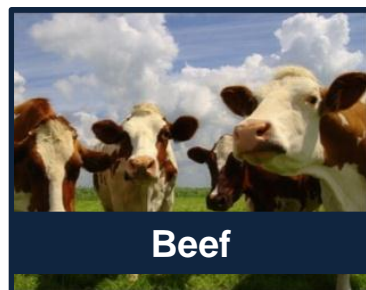


**Section**

**Passenger Terminal Building**

**SCALE 1/500**

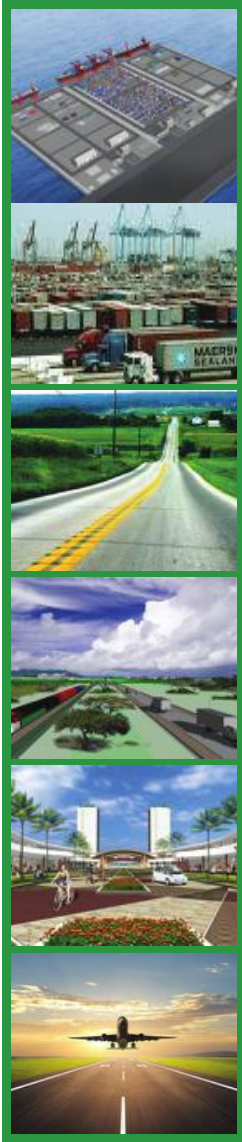
## VALUE CHAIN INVESTMENT OPPORTUNITIES IN THE LAPSET CORRIDOR



*value chains were identified as most suited for the corridor; corridor compatibility, investor interest, country competitiveness, social impact, and market potential were analyzed*



# SHORT TERM VALUE CHAIN INVESTMENT OPPORTUNITIES IN THE LAPSET CORRIDOR



## Value Chain

## Example Investment Opportunity

## Proposed Land & Geography



### Beef

- **Production and Processing:** Large holding grounds for live animals, sourced from pastoralists, which will provide disease control and fattening of cattle before slaughtering and selling processed meat to local and export markets

- ~60,000 ha around Isiolo



### Mangoes

- **Nucleus Farm and Outgrower Schemes:** Seven nucleus farms, each with 50 hectares with mango trees for production of the Ngowe variety and investment in smallholder outgrower schemes to supply existing mango processing facilities

- ~350 ha in the Tana River Delta



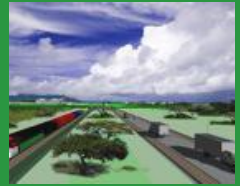
### Sugarcane

- **Cultivation & Processing:** Cultivation of sugarcane of about ~13000 ha, as well as through outgrower schemes, and cane processing into sugar through a sugar mill with a processing capacity of ~5000 TCD (tons of cane per day)

- ~10,000 ha in the Tana River Delta

*Illustrative short-term investment opportunities include feeding of cattle, cultivation of mangoes, and production and processing of sugarcane*

## MEDIUM / LONG TERM AGRICULTURAL VALUE CHAIN INVESTMENT OPPORTUNITIES IN THE LAPSET CORRIDOR



**Avocados**

- Kenya can leverage growing local and global consumption of avocados to increase **production of avocados** for **fresh exports** and for **oil processing**



**Cattle Hides**

- Consumption of cattle hides is growing across the world, and a growing Kenya livestock sector will help facilitate the **production of hides** and **processing of leather**



**Sorghum**

- Kenya can capitalize on the northern region's hot climates to cultivate sorghum to **supply to local and regional breweries** for **beer processing**



**Asian Veg.**

- The Tana River Delta has high suitability for cultivation of Asian vegetables; Kenya can capitalize on growing global consumption of Asian vegetables to **increase cultivation of courgettes, eggplants, and onions**



**Pineapples**

- Kenya's revenue per hectare of pineapple cultivation is greater than the regional average, presenting an opportunity to expand **fresh pineapple exports** and **pineapple processing** locally and regionally



**French Beans**

- Kenya can utilize areas north of Isiolo to **grow French beans** to **increase exports** of these high-value vegetables through Nairobi's international airport



# Kenya (•) MEDIUM / LONG TERM AGRICULTURAL VALUE CHAIN INVESTMENT OPPORTUNITIES IN THE LAPSET CORRIDOR



Maize

- Maize is Kenya's most important staple; Kenya can increase **maize cultivation and milling** to supply a growing local market for maize



Rice

- Investment in **Kenya's rice cultivating and milling** could support import substitution and take advantage of Kenya's growing local consumption

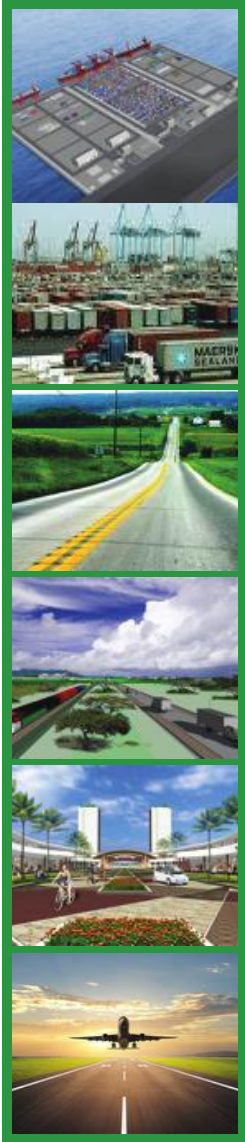


Cotton

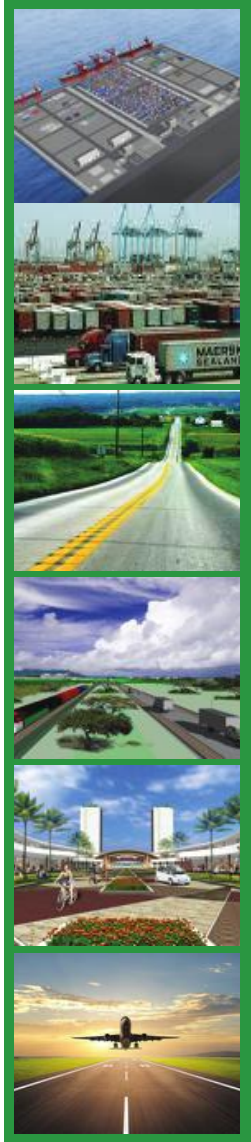
- **Expansion of cotton production** can support Kenya's local textile industry and cotton exports through the Mombasa Port in the near term and the Lamu Port in the long term



## LAPSSET CORRIDOR PROJECT GROWTH AREAS







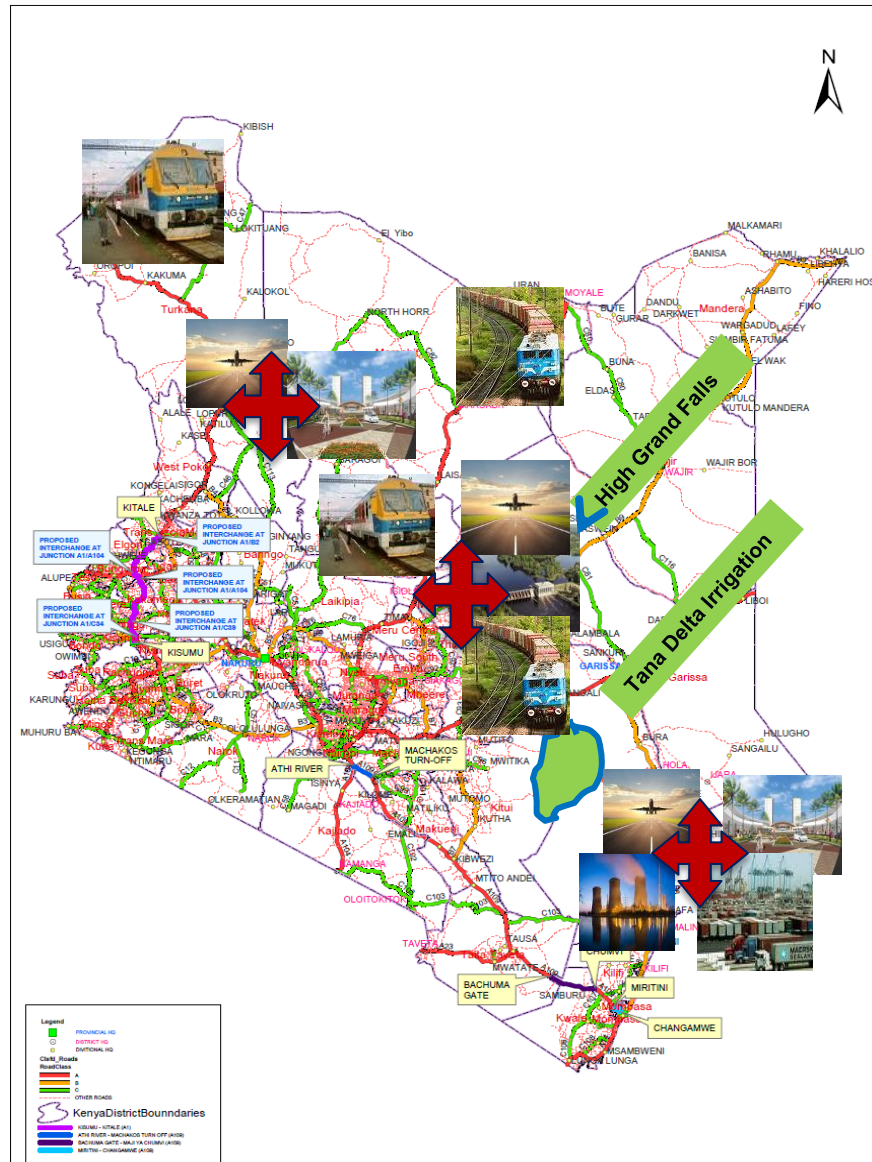
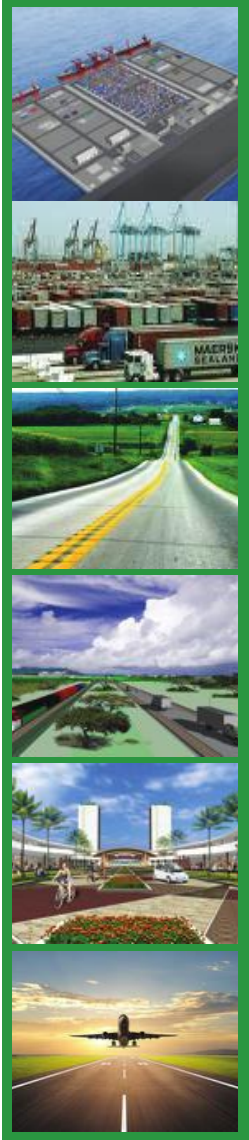
## LAPSSET CORRIDOR PROJECT RESULTS OF ECONOMIC ANALYSIS

	Component	Investment Cost at Market Price (Million US\$)	EIRR (%)	
1	Lamu Port	3,095	23.4	
2	LAPSSET Railway	7,099	17.8	
3	Highway	1,398	12.9	
4	Oil Pipeline	3,063	21.6	
5	Product Pipeline	860	13.9	
6	Resort Cities	779	20.8	
7	Lamu Airport	187	20.7	
	<b>TOTAL</b>	<b>16,481</b>	<b>20.0</b>	

Note 1: Both all and each project components are judged as **viable** in view of national economy as EIRRs computed are **more than 12%**, which is opportunity cost.

Note 2: Cargoes are generated by the Corridor itself. **Higher figures** than the above table can be realized.

## LAPSSET CORRIDOR PROJECT PRIMARY AND GENERAL INVESTMENTS



Lamu Port (International Gateway Port with Free Trade Zone)

Transit Container centre

Transshipment Container Port

Bulk Cargo Centre

Ship Building and repair

Oil Pipeline and crude oil export facility

Oil Refinery and product oil transport/terminal facility

International Airport

Standard Gauge Electric Railway Line

Special economic Zones (SEZ)

Export Processing Zone (EPZ)

Electric Power Plants (Coal, LNG Fired)

Food processing Industry

Fish Processing

Chemical Industry

High technology Industry

Tourism

Resort City





# IMPLEMENTATION OF LAPSSET CORRIDOR PROJECT

Kenya (.)

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# LAPSSET PROJECT LAUNCH: 2<sup>nd</sup> MARCH 2012



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## LAUNCH PHOTOS - 2<sup>nd</sup> MARCH 2012



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**VISION 2030**



# I(n)ya (.)

## LAUNCH PHOTOS - 2<sup>nd</sup> MARCH 2012



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## BUSH CLEARING AND STRIPPING ON THE MAIN ROAD FROM PORT AREA (C112) AT KIONGONI



## FORMED ROAD SECTION TO THE PORT AND LAUNCH AREA





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## PROCESSING OF GRAVEL ON NYONGORO - HINDI SECTION





# Kenya (.)

## LAPSSET PROJECT LAUNCH: IMPRESSION OF PORT BUILDING





## AFTER THE LAUNCH: LAMU PORT BUILDING WORKS (Oct. 2013)



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## AFTER THE LAUNCH: LAMU PORT BUILDING WORKS (Oct. 2013)





# Kenya (.)

## ONGOING WORKS AT LAMU PORT POLICE STATION





## 220 KV Transmission Line – Pylons Construction from Rabai and Stringing at Garsen

**Kenya** (.)





# Kenya (.) SHORT TERM INTERVENTION 2012 - 2014



## BOREHOLES

- Boreholes sunk and equipped to produce 1.3M litres per day
- Capacity to be doubled to 2.6M litres per day this year 2013
- Piping work done to Port site
- Construction of storage tanks

### DESALINATION PLANT

- Consideration of a de-salination plant
- Efforts to partner with the government of Spain ongoing





### HIGH GRAND FALLS MULTIPURPOSE DAM

- Supply from High Grand Fall Multipurpose Dam Project
- 500MW Power Supply
- Irrigation Water Supply for Food Security and Mechanized and Industrialized Agriculture
- Down Stream Flood Control.

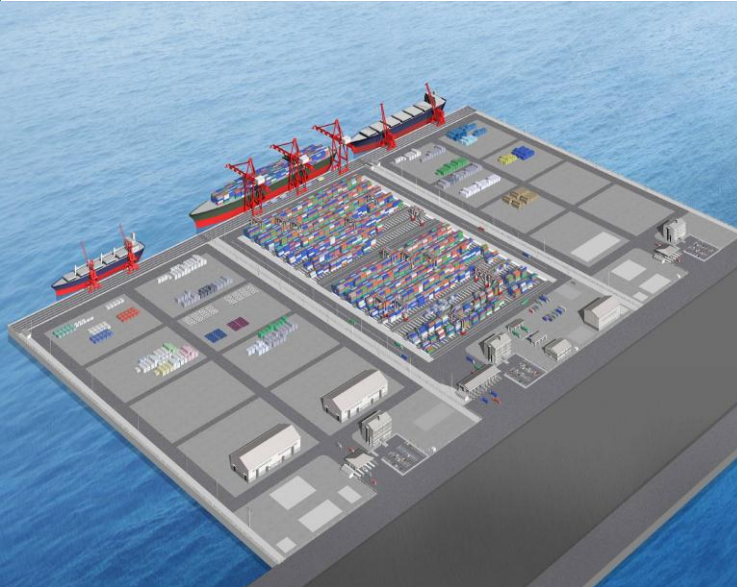


## LAMU PORT 1<sup>ST</sup> THREE BERTHS

### PORT CONSTRUCTION CONTRACTOR AND SUPERVISION CONSULTANTS

- Detailed Engineering Designs for the First Three Berths and Associated Infrastructure completed
- Tender for Contractor and Tender for Supervision Consultants completed and won by Ms China Communication Construction Company with a tender amount of **Kshs 41 Billion.**
- The government has since allocated a total of **Kshs. 4.2 Billion with Kshs. 3.7billion** allocated during 2013/2014 Financial Year and **Kshs 500M FY 2012/13**

**PROJECT TIMELINE 3 YEARS FROM THE DATE OF  
CONSTRUCTION COMMENCEMENT**

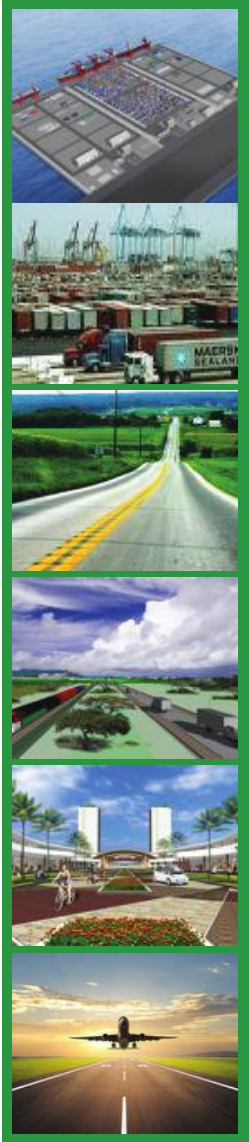




## LAPSSET ROADS: ISIOLO - MERILE RIVER 136KM COMPLETED (PART OF ISIOLO - MOYALE - ADDIS ABABA ROAD)



**ROADS: MERILE RIVER - MARSABIT (PART OF ISIOLO - MOYALE - ADDIS ABABA ROAD)**  
**121KM CONSTRUCTION ONGOING - 10% PROGRESS**



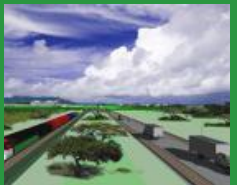


## ROADS: MARSABIT - TURBI (PART OF ISIOLO - MOYALE - ADDIS ABABA ROAD) 121.5KM CONSTRUCTION ONGOING - 43% PROGRESS





## ROADS: TURBI - MOYALE (PART OF ISIOLO - MOYALE - ADDIS ABABA ROAD) 127 KM CONSTRUCTION ONGOING - 7.55% PROGRESS





## CRUDE OIL PIPELINE: SOUTH SUDAN, UGANDA AND KENYA TO PORT OF LAMU PIPELINE

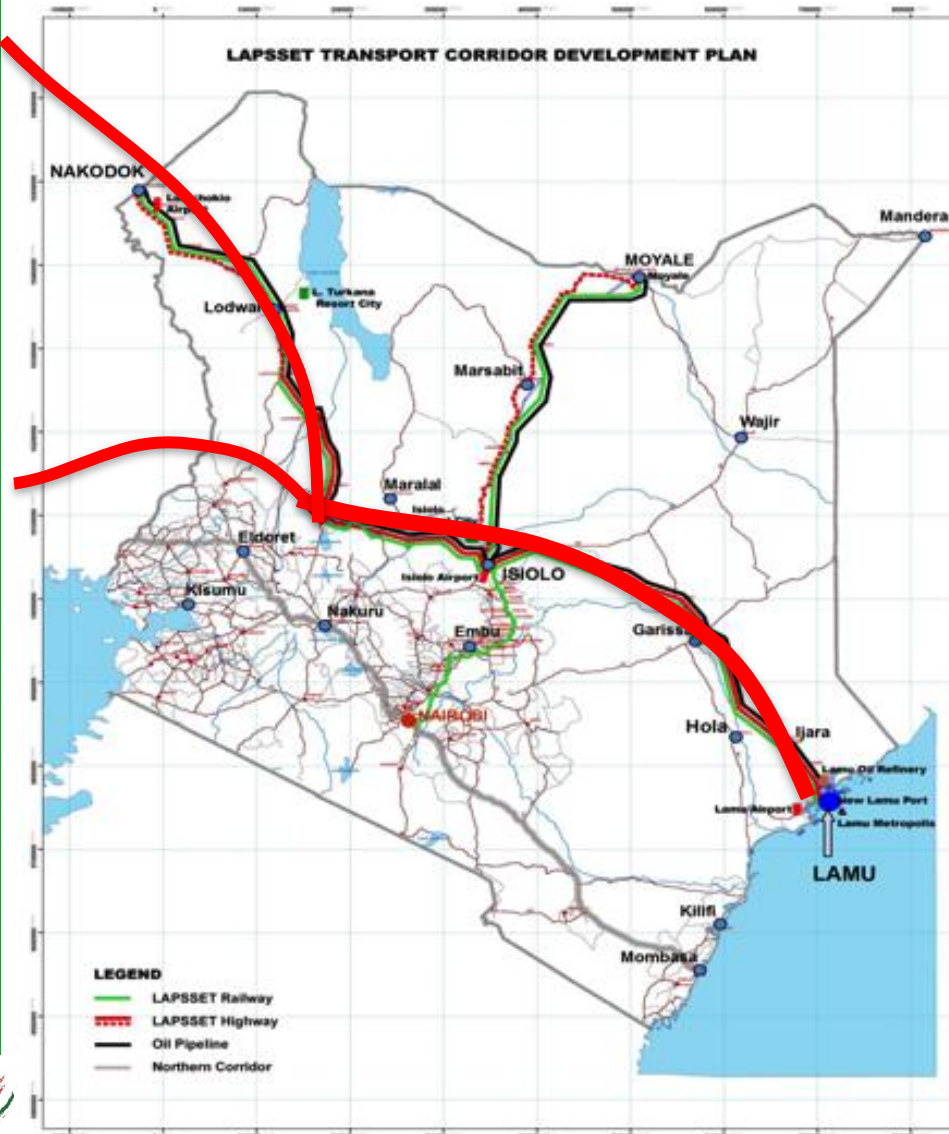
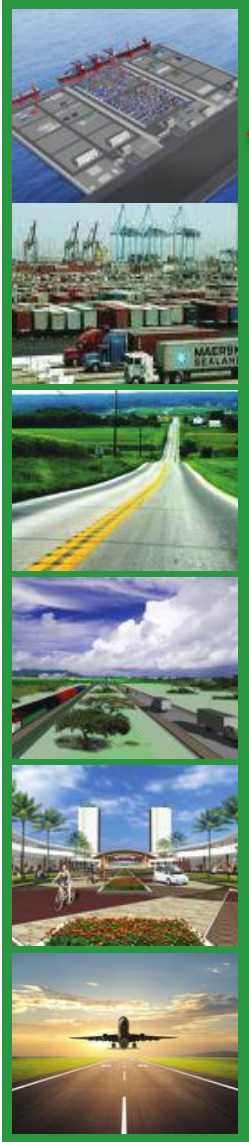
### STATUS

South Sudan, Uganda, Kenya Crude Oil Pipeline to Lamu Port is currently at the negotiation of the: **Inter Governmental Agreement (IGA)** between the 3 governments of South Sudan, Uganda and Kenya.

Expression of interest for the tender for the development of the pipeline will be announced in due course.

### PROJECT TIMELINES

3 years Construction period from the date of construction commencement



# STRATEGY FOR IMPLEMENTATION OF LAPSET CORRIDOR PROJECT



## LAPSSET ROADS

Will be developed by the government. The roads may be opened for private sector operations and maintenance once traffic reaches optimal levels for attractive to private sector investment.

## LAMU PORT

The Government of Kenya will only develop the first three berths which will be provided as an incentive to attract Private sector participation in Lamu Port operations and investment in the rest of the 29 Berths.

## SOUTH SUDAN, UGANDA, KENYA CRUDE OIL PIPELINE PROJECT

The Project will be developed through a BOOT to enable private sector to take a lead in the delivery of the project. Expression of interest for the tender for the development of the pipeline will be announced in due course.

## OIL REFINERY, AIRPORT, RESORT CITIES

These projects will be carried out by private sector to take advantages that exist in these investments. The government will only provide facilitation to private sector investors

## RAILWAY

Railways will be developed by government and operated and maintained by private sector

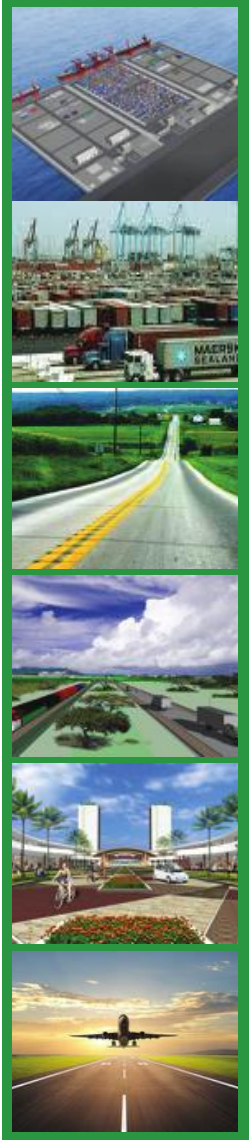




# FACTORS FACILITATING PROVISION OF INFRASTRUCTURE

Kenya (.)

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# FACTORS FACILITATING PROVISION OF INFRASTRUCTURE:

## THE PRINCIPLE OF INFRASTRUCTURE WITH A HUMAN FACE AND EQUITY

- The Kenyan society has come along way in developing infrastructure beginning with pre-independence efforts to investments undertaken by the independent Kenya from 1963.
- There are several parts of the country that still lack basic infrastructure such as roads, electricity supply, water and sanitation among other infrastructure.
- The Grand Coalition Government has put a lot of effort to create equity in providing infrastructure countrywide.
- The principle is to include those who think they have been excluded without forgetting those who have been beneficiaries over the decades.
- Provision of infrastructure must therefore have a human face.



## FACTORS FACILITATING PROVISION OF INFRASTRUCTURE:

### POLICY

- Various policy instruments that support infrastructure programs as a priority of government are already in place while more effort is being put to address policy gaps in infrastructure sector: **Kenya Vision 2030 Strategy, Water Policy; Housing Policy; Energy Policy and Roads Subsector Policy of 2006; Integrated National Transport Policy (covering Roads, Railways, Ports, Airports) and Information and communications Policy** among others.
- Various units of government responsible for implementing these policies should ensure that they are given appropriate attention in funding and implementation of priority infrastructure programs.
- To complement investment in socio-economic sectors and physical infrastructure, the Government working on **deepening structural reforms in the area of governance, public financial management; public service, business regulation, and the financial sector.**
- Reform measures are aimed at reducing the cost of doing business and thus enhance Kenya's competitiveness as well as private sector investment and growth.



## FACTORS FACILITATING PROVISION OF INFRASTRUCTURE:

### FINANCE

- Budgetary allocation to Infrastructure has been significantly increased from a mere less than **1% of GDP in the years before 2003 to over 7% of current GDP today.**
- The share for roads alone today stands at over **4% of GDP** compared to less than 1% in the years before the NARC Government. For example, the government allocated to the Sector **KSh 186.0 billion**, equivalent to **23.0%** of total expenditure in the budget for FY **2010/11** compared to **Ksh 78.3 Billion** allocated during the FY **2006/07**.
- A new Road Infrastructure **Master Plan with a budget of Kshs 2 Trillion** has been planned between 2012 and 2024.



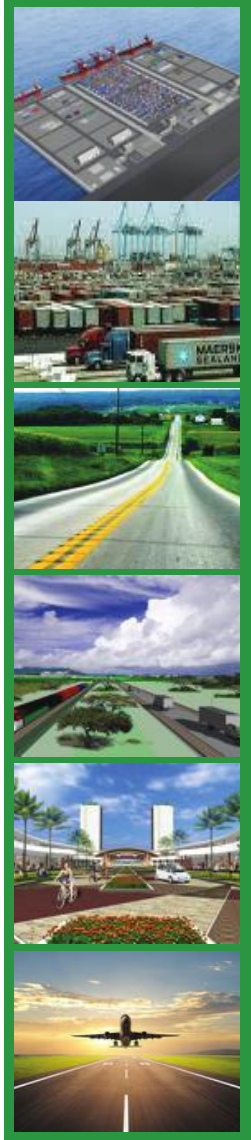


## FACTORS FACILITATING PROVISION OF INFRASTRUCTURE:

### LEGISLATIVE INSTRUMENTS

- Laws and regulations are key to infrastructure delivery. In particular, private sector participation in infrastructure provision require that safeguards be in place to protect against investor risks.
- The Grand Coalition Government has put in place a Private Public Partnership Regulation to safeguard private investments in government infrastructure.
- The grand coalition Government is fast-tracking the completion of establishing frameworks for PPPs.





## GOVERNMENT LEADERSHIP IN PROVIDING INFRASTRUCTURE FOUNDED ON:

### SERVANT LEADERSHIP, MATURE POLITICS AND STABLE ECONOMY

- Government and Political leadership have strong Policy focus on Infrastructure development and Economy founded on strong market principles
- There is focused Government leadership with stronger recognition and focus on infrastructure development as a vital facilitator/driver of economic growth and development in the country.
- The Government has put a lot of effort on construction of new infrastructure as well as maintaining what has been provided.



## GOVERNMENT LEADERSHIP IN PROVIDING INFRASTRUCTURE:

- The Government objectives for the infrastructure sector include:
- Strengthening the institutional framework for infrastructure development and accelerating the speed of completion;
- Raising efficiency and quality of infrastructure projects and timely implementation;
- Developing and maintaining an integrated, safe and efficient transport network;
- Benchmark infrastructure facilities and services provision with globally acceptable performance standards targeting enhanced customer satisfaction; and
- Enhancing private sector participation in the provision of infrastructure facilities and services strategically complemented by public sector interventions.





# EXPECTED OUTCOMES OF LAPSSET IN INFRASTRUCTURE

Kenya (.)

KENYA  
VISION 2030



## EXPECTED OUTCOMES OF LAPSSET IN INFRASTRUCTURE:



- **Create a seamless interconnectivity** within coastal counties, throughout the country and linkages to neighboring countries through the country's roads, railway, ports, airports and telecommunications;
- **Raising the profile of Counties in strengthening Kenyas regional Hub scenario in Eastern Africa** (particularly in our Roads - Northern Corridor, Port, Rail, Airport), SEZs and Free Trade Areas;
- **Increase electric power generation** through various energy initiatives such as green energy and clean energy to improve reliability in electric power supply to support faster rate of industrialization;
- **Attract increased private sector investment** in infrastructure development and management in the country. Currently, there are a number of private sector involvements particularly in the energy, water and railway sub-sectors. More private sector investments are being explored in roads, railways, ports and water services.

## EXPECTED OUTCOMES OF LAPSSET IN INFRASTRUCTURE:

- Establish efficient, reliable and sustainable infrastructure
- Creation of more employment in both specialized areas and labour thus reducing poverty levels in the country.
  - Country 's like Singapore, Malaysia, Thailand and India have used transformative infrastructure development as a means for spurring socio-economic growth and development. Malaysia is on record for constricting highways and landmark investments like PETRONAS Twin Tower as a means of strengthening capacity in local construction expertise.
- Create capacity in infrastructure industry from human, technological, financial and consumers in the country. Countries like China, India, Malaysia, Brazil, Iran and Singapore among others have used this model to adapt technology and train their manpower while building capacity in their delivery institutions.



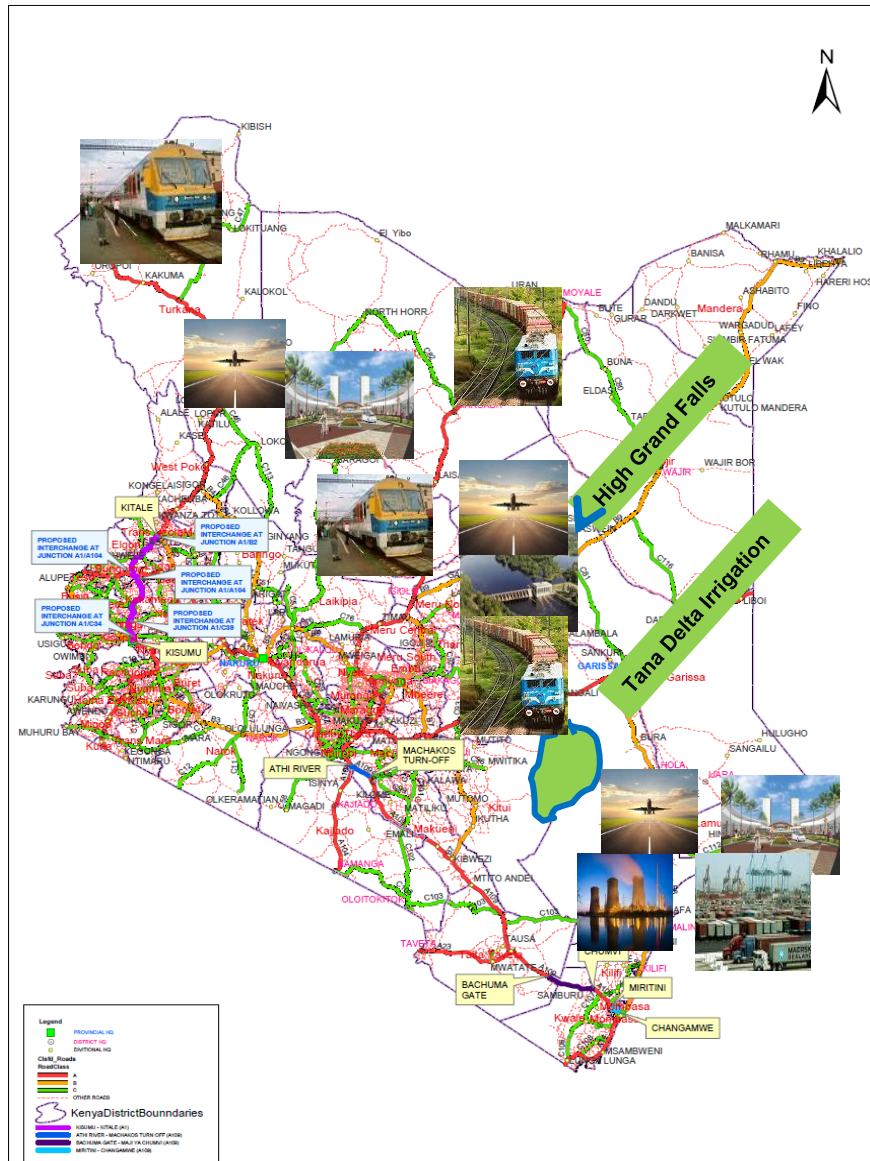
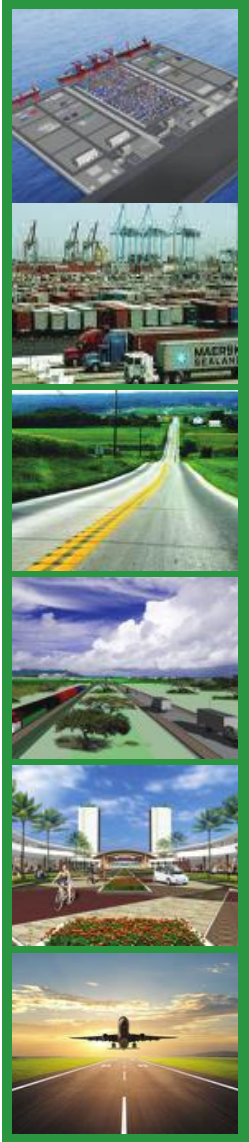


## EXPECTED OUTCOMES OF LAPSSET IN INFRASTRUCTURE:



- **Strengthen socio-economic base of Kenya.** Infrastructure is a key backbone of the Kenyan economy hence continued development in infrastructure is a key pointer to positive economic outlook. Continued investment in infrastructure has seen the country recovering speedily from the shocks that resulted in a jumpstart from a marginal 1.6 to 2.6 and 5.5 per cent growth in 2008, 2009 and 2010 respectively.
- **Pastoral regions particularly in the north of Kenya will be the next growth frontier for the entire economy.**
- **Delivering transformative infrastructure:** The country will have made tremendous strides towards facilitating socio-economic development with the completion of these key infrastructure projects.

# TRANSFORMATION OF LAPSSET CORRIDOR



## Lamu Port (International Gateway Port with Free Trade Zone)

## Transit Container centre

## Transshipment Container Port

## Bulk Cargo Centre

## Ship Building and repair

## Oil Pipeline and crude oil export facility

**Oil Refinery and product oil transport/terminal facility**

## International Airport

## Standard Gauge Electric Railway Line

## Special economic Zones (SEZ)

## Export Processing Zone (EPZ)

### Electric Power Plants (Coal, LNG Fired)

## Food processing Industry

## Fish Processing

## Chemical Industry

## High technology Industry

## Tourism

## Resort City





# CONTACTS / ENQUIRIES



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