



# Lamu Port

PIDA Week 2018

27 November, Victoria Falls



Implemented by **giz** Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

## Project Description: LAPSSET Corridor

- The South Sudan, Ethiopia Transport Corridor (LAPSSET Corridor) is a regional multi-modal infrastructure program intended to **enhance trade, facilitate regional connectivity and promote regional economic integration.**



An Interregional Railway Line



An Interregional Highway



An Interregional Petroleum Product Pipeline and Oil refinery



The High Grand Falls Multipurpose Dam Project



A 32 Berth Port at Manda Bay, Lamu



An Inter-Regional Crude Oil Pipeline



Resort Cities



International Airports

- Comprises above 6 infrastructure projects and **Economic Zones, and an SEZ adjacent to the Port**

## Project Description: Lamu Port



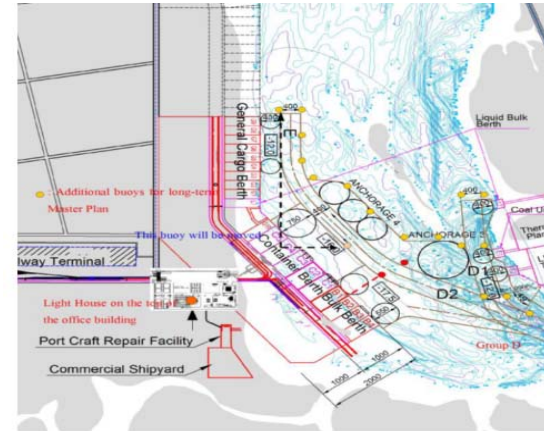
- Once completed, the LAPSSET Corridor will provide a gateway to landlocked Ethiopia and South Sudan.
- Lamu Port anchors the Corridor by providing access to key shipping routes.
- The Port is located at Manda Bay in Lamu - Kenya and will eventually comprise 32 deep sea berths.
- Berths 1-3 are currently under construction.
- The GoK is funding the construction of Berths 1-3 but intends to develop Berths 4-6 (and a portion of Berths 1-3) via a PPP.

## Project Status

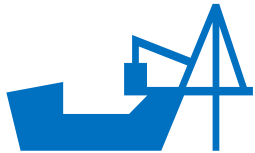
- **2011 Feasibility Study** for the LAPSSET Corridor formed the basis for the GoK's investment and commitment.
- **Construction of Berths 1-3:** China Communications Construction Company (CCCC) appointed in 2014 and all three berths will be completed by 2020.
- **Auxiliary facilities already in place:** port headquarters, housing (60% complete, police station, connection to the power grid.
- **Transaction advisor appointed with support from NEPAD IPPF** to investigate the feasibility of various funding models including a public private partnership (PPP) for the development of subsequent berths. The **TA study, including market soundings**, to be completed by the end of 2019.
- **Sourcing of a PPP partner/consortium** to start in 2020 and for Berths 1-3 to start operating in 2021.

## Technical Features

- Berths have a draft of 17.5 m and length of 400 meters
- 18-metre-deep entrance channel
- Potential to serve as a **transshipment hub**, offering feeder capabilities into regional ports (e.g. Mombasa, Mogadishu, Dar Es-Salaam, Durban, Cape Town and the Indian Ocean islands)

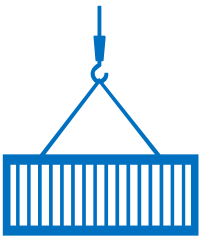


Source: JPC Study, 2011



### Vessels:

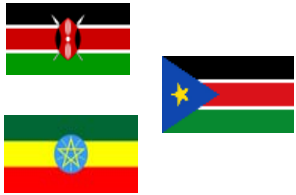
- Accommodates large vessels
- 200,000 deadweight tonnage (DWT) bulk vessels
- 12,000 TEU container vessels.



### Volumes:

- Completed Lamu Port (32 berths): **23 million tons**
- Berths 1-6: Cargo volume of around **5 million tons**

## Key Parties



**Three Partner States (Kenya, Ethiopia and South Sudan) – Key development partners.**

**The Kenya Port Authority (KPA) – Implementing Authority**



**The LAPSSET Corridor Development Authority (LCDA) – responsible for planning, coordinating and managing the delivery of the Corridor and its infrastructure.**



**The Development Bank of Southern Africa (DBSA) –committed KES 126 billion (US\$1.5 billion) of funding to the LAPSSET Corridor.**

**NEPAD IPPF – provided project preparation funding for the appointment of Transaction Advisor.**



## Supporting Frameworks

### Political frameworks

- *The Presidential Infrastructure Champion Initiative (PICI)*
- AfDB 2014-2023 strategy blueprint
- The AU Agenda 2063 and SDGs
- Kenya Vision 2030 Strategy



### Legislative frameworks

- Kenya's Public Private Partnerships (PPP) framework
- Kenya's Investment Framework
- Kenya's Foreign Investment Protection Act (FIPA)
- Kenya's Environmental Framework

## Market Size

**Cargo volumes** expected to follow the demand for exported commodities and imported goods and will be sensitive to economic growth. Following factors likely to drive cargo volumes:



**Agriculture exports:** currently account for 70% of foreign export earnings in East Africa. Opportunity for diversification: livestock, fisheries etc.



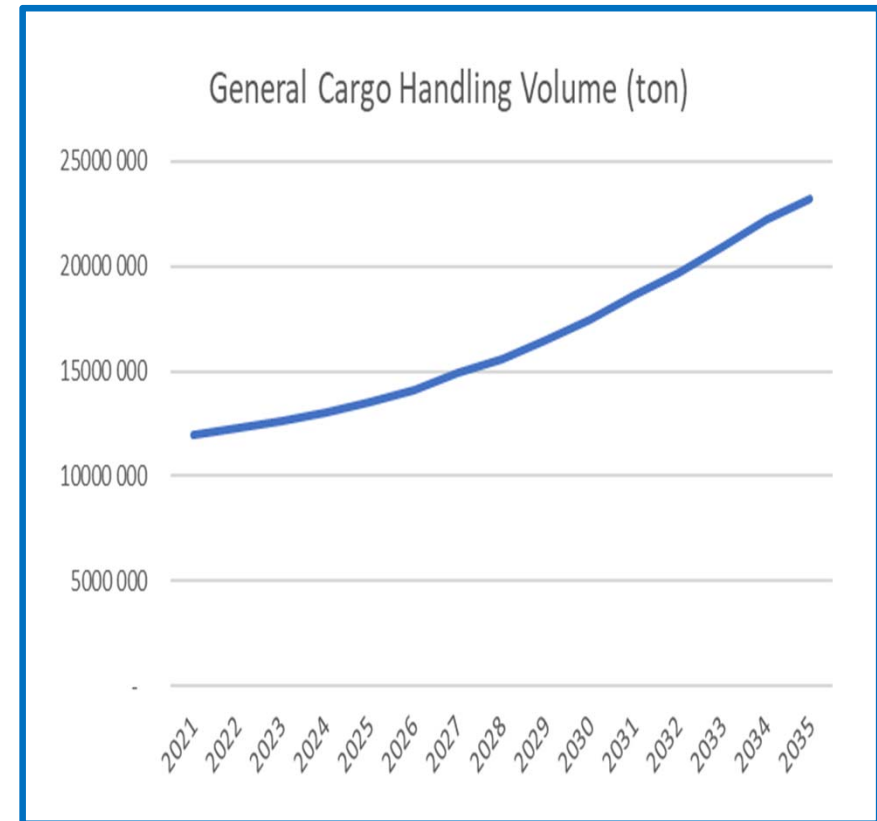
**Industrial exports:** expected to drive future cargo volumes (SEZ, growth of Ethiopia's manufacturing industry, etc.)



**Natural resources:** crude oil exports will also drive cargo volumes.



Three countries expected to benefit from significant real annual growth till 2027 (Kenya 5%, Ethiopia 6.1%, South Sudan 4.4%) which should **drive demand for imported goods.**



LAPSET Corridor forecast to generate a surplus of 40 million tons of general cargo by 2035



# Delivery & Business Models

## Funding model :

Kenya intends to source for a PPP partner to

- Fund a portion of berths 1-3
- Fund construction of berths 4-6
- Operate Berths 1-6

Kenya has contributed USD336m to the Project to date

## Estimated project costs for berths 1-6

USD 000	Berths 1-3	Berths 4-6	Berths 1-6
<b>Construction related costs</b>	468 808	468 808	937 616
<b>Compensation payments</b>	17 793		17 793
<b>Land costs</b>	19 253		19 253
<b>Other preliminary costs</b>	1 199		1 199
<b>Equipment</b>	129 610	129 610	259 220
<b>Total costs (excl. overruns)</b>	<b>636 664</b>	<b>598 418</b>	<b>1 235 082</b>
<b>Funded to date by GoK</b>	(336 046)		(336 046)
<b>Funding gap (excl. overruns)</b>	<b>300 617</b>		<b>899 035</b>

Envisaged funding & ownership model: **Project Company** or **SPV** owned by **PPP partner & GoK**.

*To be confirmed by NEPAD IPPF funded feasibility study in 2019*

## Revenue estimates

### Revenue/profit sharing model

- Will be developed as part of the feasibility study in 2019 & will depend on model implemented
- Should allow the GoK to recover its upfront investment in infrastructure
- Estimated revenue for the first 3 berths of USD27.5m in 2021, growing to USD235m in 2035 (for 6 berths).

	Container terminal			General Cargo			Total
	Container terminal revenue	Port revenue		Container terminal revenue	Port Revenue		Total Revenue for Terminal & Port
Year	Handling Revenue	Light Due, Port Harbour Due, Dockage Fee, Security Due	Mooring Service	Cargo Handling Revenue	Light Due, Port Harbour Due, Dockage Fee, Security Due	Mooring Service	GRAND TOTAL
2021 (3 berths)	13 600 000	317 000	35 000	12 655 000	726 000	167 000	27 500 000
2021 (3 berths)	40 210 000	532 000	154 000	16 534 000	951 000	219 000	58 600 000
2030 (6 berths)	148 560 000	1 778 000	492 000	43 882 000	2 522 000	580 000	197 814 000
2035 (6 berths)	174 650 000	2 642 000	630 000	54 000 000	3 102 000	712 000	235 736 000

# Financial Analysis

## Basis for the GoK investment to date:



- 2011 economic assessments by JPC
- Forecasted an **EIRR: 23.4%** (32 berths)
- Declared the project economically viable based on an **opportunity cost of 12%**.

## Next steps:



- Financial and economic assessments to be undertaken in 2019 for berths 1-6 by the transaction advisor appointed by KPA.
- Determine the financial and economic viability under different funding models to conclude on preferred model.

## Delivery & Business Models (and funding opportunities)



**East African ports traditionally operated by the public sector**, resulting in:

- Lower operational efficiencies
- Limited investment in port infrastructure and equipment due to fiscal constraints.



**PPPs offer the following opportunities:**

- Improved operational efficiencies (demonstrated at various ports in West Africa operated by the private sector).
- Optimised design of port infrastructure.
- Transfer of construction risk and overruns to the private sector.
- Access to private capital to fund infrastructure.



**Opportunity for innovative funding mechanisms**

- Opportunity to structure investment grade project bonds (secured against the revenues of the Project) through NEPAD's 5% Agenda.

## Estimated Job Creation Opportunities (32 berths)

**Potential:** construction and operational phases are likely to create significant job opportunities

Phase	Project preparation	Construction	Operation	Total
Years in phase	3	20	100	123
Direct jobs	1 877	21 771	3 296	6 265
Indirect jobs	323	5 518	1 126	1 821
Induced jobs	2 350	5 117	2 002	2 517
Secondary jobs	-	-	-	15 105
Total average jobs p.a.	4 550	32 406	6 424	25 708

**Risk:** lack of necessary skills among local communities to participate in these job opportunities.

### Mitigating measures:

- GoK has committed to a **capacity building programme** in port and cargo operations & a **training institution** to upskill local communities.
- Include **local content requirements** in the PPP agreements.

# Environmental, Socio-Economic Impact & Sustainability

## 2011 Feasibility Study (JPC)

Risk areas identified: impact on marine life and mangroves, fishing industry, the world heritage site of Lamu, and terrestrial floral and faunal species.

## 2012 Environmental and Social Impact Assessment (ESIA) (Heztech Engineering)

Risk areas identified: water quality, mangroves, fisheries, archaeological, historical and cultural sites and land ownership.

**Resettlement Action Plan (RAP):** underpinned resettlement and compensation in 2016.

## 2016/17 Strategic Environmental Assessment (SEA) (Repcon Associated)

Identified strategic resources, linkages between environmental protection & economic growth, and mitigation measures.

### Mitigation measures include:

Implementing above studies' recommendations, including: addressing land tenure issues, introducing conflict management committees and providing training for communities to improve employability



## Risks and Mitigation Measures

Category	Specific risk	Mitigating measures
<b>Market</b>	<ul style="list-style-type: none"> <li>• Geographic</li> </ul>	<ul style="list-style-type: none"> <li>• Market soundings</li> </ul>
<b>Technology</b>	<ul style="list-style-type: none"> <li>• Performance</li> </ul>	<ul style="list-style-type: none"> <li>• Appointing an experienced PPP consortium</li> </ul>
<b>Interface</b>	<ul style="list-style-type: none"> <li>• Implementation of supporting LAPSSET infrastructure</li> <li>• Fiscal constraints</li> </ul>	<ul style="list-style-type: none"> <li>• Assurances and downside protection may be required by private sector</li> <li>• Innovative financing mechanisms</li> </ul>
<b>Predictability of cash flow</b>	<ul style="list-style-type: none"> <li>• Lack of contracted revenue</li> <li>• Regulatory constraints</li> <li>• Rerouting</li> </ul>	<ul style="list-style-type: none"> <li>• Market soundings</li> <li>• Adequate tariff &amp; revenue mechanisms</li> <li>• Comprehensive demand &amp; traffic study</li> </ul>
<b>Credit</b>	<ul style="list-style-type: none"> <li>• Nature of asset ownership</li> <li>• Key credit metrics</li> </ul>	<ul style="list-style-type: none"> <li>• Adequate levels of ownership</li> <li>• Financial modelling and structuring to optimise credit metrics</li> </ul>

## Timeline & Milestones

Berths 1-3's completion is scheduled for December 2020 and operations is expected to start in 2021. Berths 4-6 is expected to be operational in 2025.

