

Lamu Port Project Berths 4-10

PROJECT INFORMATION MEMORANDUM

PEGASYS

1 PROJECT DESCRIPTION

1.1 CONTEXT AND OBJECTIVES

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. This corridor will facilitate trade throughout the region by connecting Lamu Port to inland markets and landlocked countries through various modes of transport.

The LAPSSET Corridor includes a 500-meter-wide **infrastructure corridor** and a 50 km **economic corridor** that straddles the infrastructure corridor and which is expected to generate significant cargo volumes. A special economic zone (SEZ), adjoining Lamu Port, will form a key component of the larger economic corridor. The following infrastructure will be developed as part of the LAPSSET Program:

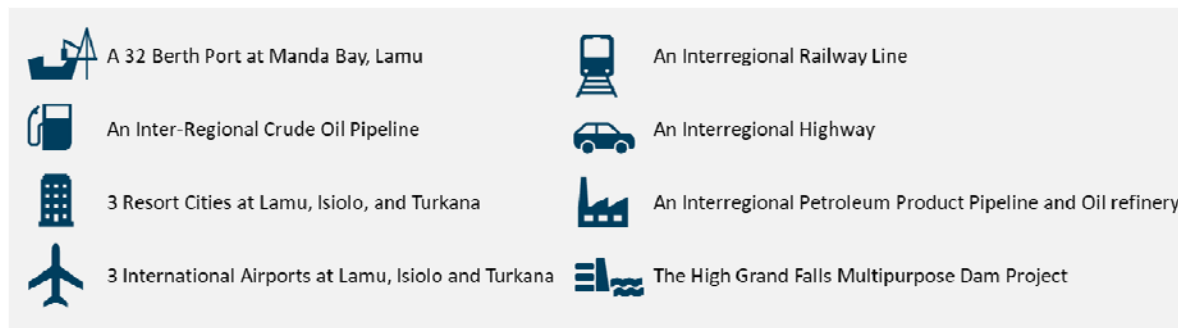


Figure 1 LAPSSET infrastructure planned

The 32-berth port at Manda Bay (Lamu Port) is an anchor project of the LAPSSET Corridor. It is expected to absorb some cargo traffic from Mombasa, and to support import and export flows to/from growing economic activities along the Corridor.

Once all phases have been completed, the Port will comprise of 32 deep sea berths and will act as a transshipment hub for the region. Berths 1-3 are currently under construction and are expected to be operational in 2021. The Kampala Ports Authority (KPA) intends to procure a public private partnership (PPP) partner who will be responsible for: funding the completion of Berths 1-3; constructing and funding Berths 4-6; and operating all six Berths. The development of the initial six berths is the focus of this PIM and is referred to as “the Project”. Subsequent phases will see the construction of berths 7 to 32.

1.2 PROJECT LOCATION



The Port is located at Manda Bay in Kenya and forms a key connection point between the LAPSSET Corridor and the rest of the world. The LAPSSET Corridor will cross nine provinces in Kenya¹ and provide a gateway to landlocked Ethiopia and South Sudan. The longer-term aim is to create a trans-continental trade passage that will ultimately connect the Central African Republic and Cameroon as illustrated in Figure 2.

Figure 2 Map of Lamu, LAPSSET Corridor (red) and trade corridor link to West Africa (yellow)

1.3 PROJECT STATUS

The 2011 Feasibility Study for the LAPSSET Corridor, completed by Japan Port Consultants (JPC) Ltd., concluded on the economic feasibility of Lamu Port. The Study formed the basis for the Kenyan Government’s investment to date in Lamu Port. Construction of berths 1-3 is currently underway and is expected to be completed by December 2020. The China Communications Construction Company (CCCC) was appointed in 2014 by the KPA

¹ Lamu – Garissa – Kula Mawe – Isiolo – Kisima – Ngi Nyang – Lokori – Lokichar – Lodwar – Lokichokio – Nakodok

to construct the first three berths and associated infrastructure (offices, warehouses, gates etc.). The Project aims to leverage private sector capital via a PPP arrangement to complete Berths 1-3 and to develop Berths 4-6. The PPP partner will also be responsible for funding all 6 berths' equipment and operating the berths.

Transaction advisors have been appointed by the KPA, with the support of NEPAD IPPF, who will investigate the feasibility of berths 1 to 10 and who will also be providing PPP procurement support. It is expected that the Project's feasibility studies will be completed by the end of 2019 and that a PPP consortium will be procured in 2020.

Some facilities are already in place at the Port, namely: the port headquarters, a police station, a connection to the power grid, and a water reticulation network connection. The development of the Port Management Housing Scheme by the Kenyan Government is also underway.

1.4 KEY PARTIES

Both the Project and the LAPSET Corridor enjoy wide political support from the parties listed below.



The Government of Kenya (GoK) is a key sponsor to the Project and is funding the construction of Berths 1-3.



The Kenya Port Authority (KPA) was established in January 1978 under an Act of Parliament and is responsible for setting tariffs at Kenyan ports. KPA is mandated to manage and operate the Port of Mombasa as well as all scheduled seaports along Kenya's coastline. KPA is also the implementing agency for Lamu Port.



The LAPSSET Corridor Development Authority (LCDA), created by the Government of Kenya in March 2013, is responsible for planning, coordinating and managing the implementation/delivery of the Corridor and its infrastructure.



The Governments of Ethiopia and South Sudan are supporting the project, and they are also expected to create authorities (similar to the LCDA) to provide effective leadership in the delivery of the LAPSSET Corridor. Both Ethiopia and South Sudan have an interest in the successful development of the LAPSSET Corridor, given their landlocked status and dependence on neighbouring countries' ports.



The NEPAD Infrastructure Project Preparation Facility (NEPAD-IPPF) Special Fund supports the Project, as evidenced by the grant that was awarded to it by the facility in 2016. The LAPSSET Corridor was selected to be part of **NEPAD's 5% Agenda**, a NEPAD/AU initiative that aims at mobilizing 5% of pension funds of African residents to invest in infrastructure projects.



The Programme for Infrastructure Development in Africa (PIDA), was adopted by all African Heads of State and Government as the continental strategic framework for cross-border infrastructure development in Africa. PIDA was adopted during the 18th ordinary session of the AU Summit. It is therefore the only politically adopted continental programme that contributes to regional infrastructure.



The Development Bank of Southern Africa (DBSA) is a development finance institution wholly owned by the Government of South Africa which has committed KES 126 billion (US\$1.5 billion) to the LAPSSET Corridor.



Kenyan transport & energy partners are other key stakeholders.

1.5 SUPPORTING FRAMEWORKS

1.5.1 POLITICAL FRAMEWORKS

Global and continental frameworks

AfDB 2014-2023 strategy blueprint: The blueprint aims to “create larger, more attractive markets, link landlocked countries to international markets and support intra-Africa trade”. The Lamu Port project, as a key

component of the LAPSSET Corridor, represents a key opportunity to open markets, in line with the strategy blueprint.

The Presidential Infrastructure Champion Initiative (PICI): The PICI initiative seeks to unlock large projects of strategic importance by assigning heads of states as their champions. The African Union recognised the importance of the LAPSSET Corridor by assigning it PICI status.

The AU Agenda 2063 and SDGs: The work of the NEPAD Agency and the PIDA programme contribute to the African Union's Agenda 2063 and the United Nation's Sustainable Development Goals, by creating an integrated continent served by world class infrastructure. Ensuring: (1) access to water and sanitation,(2) access to affordable, reliable, sustainable and modern energy, and (3) building resilient infrastructure, promoting sustainable industrialization and fostering innovation.

Regional frameworks

Important regional frameworks also support the development of the LAPSSET Corridor, which will be key to creating cargo demand for Lamu Port. These include the **Kenya-Ethiopia Road and Transport Agreement**,² and **the Kenya-Ethiopia Railway Agreement**.

National frameworks

Kenya Vision 2030 Strategy: The LAPSSET Corridor forms part of Kenya's Vision 2030 Strategy which guides the country's long-term development policy.

1.5.2 LEGISLATIVE FRAMEWORKS

Kenya's Public Private Partnerships (PPP) framework: Kenya's Public Private Partnership Act, 2014 (No. 15 of 2013) and its Public Private Partnership Regulations, 2014 will need to form the basis of the Project's PPP transaction.³

Kenya's investment framework: Kenya has created a positive investment climate and is an attractive location for firms to locate their regional or pan-African operations. It is also strengthening its regulatory framework and is improving its attractiveness as a destination for foreign direct investment. **Kenya's Foreign Investment Protection Act (FIPA)** guarantees capital repatriation and the remittance of dividends and interest to foreign investors.

Kenya's environmental framework: The environmental framework of Kenya sets a series of norms that any project, including that of Lamu Port, will need to adhere to, including the Environmental Impact, Audit and Strategic Assessment Regulations (2009).

2 TECHNICAL FEATURES

2.1 KEY TECHNICAL FEATURES

The Project will develop Berths 1-6 which will each have an estimated draft of between 17.5 m. Each berth will have a length of 400 meters, spanning 2,400 meters in total. These berths will be able to accommodate some of the largest vessels currently operating in the region. On completion of the larger project, Lamu Port could serve as a transshipment hub, offering feeder capabilities into other ports in the region (e.g. Mombasa, Mogadishu, Dar Es-Salaam, Durban, Cape Town and the Indian Ocean islands).

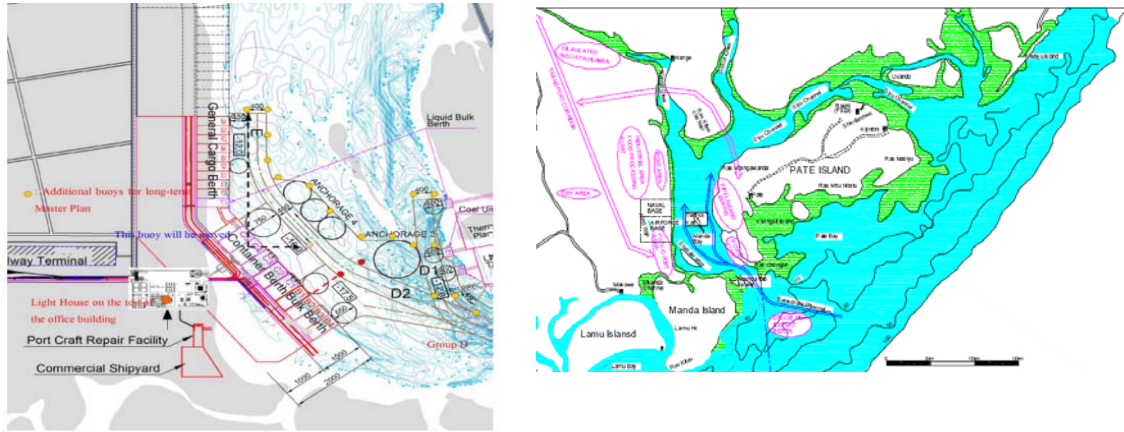
It was estimated by the 2011 Feasibility Study that Lamu Port's total cargo volumes will reach 23 million tons by 2030, implying cargo volume of around 5 million for Berths 1-6.⁴ In terms of the vessels that can berth in the Port, Lamu will be able to receive 200,000⁵ deadweight tonnage (DWT) bulk vessels and 12,000 TEU container vessels.

An 18-metre-deep entrance channel, connecting the ocean and the port, has been constructed which will allow vessels to utilize the same depths alongside the berths.

² To this agreement will be added the Kenya-Ethiopia Joint Railway Coordination Commission; The two countries agreed on establishing this entity in July 2016.

³ These two texts amended the 2011 Policy Statement on Public Private Partnerships, the 2005 Privatization Act, 2005, the Public Roads Toll Act Cap.407, and the Public Procurement and Disposal Act, 2005.

⁵ KPA



Source: JPC Study, 2011

Figure 3 Lamu Port map (left) and the channel map (right)

2.2 MARKET SIZE

Overview

Cargo volumes are expected to follow the demand for imported products and exported commodities and will be sensitive to economic growth. As illustrated below, Kenya is forecast to benefit from 5% real annual growth until 2027, whilst Ethiopia and South Sudan’s economies are also forecast to grow significantly over the same period. This growth is likely to translate into higher cargo volumes for the region over the same period. Historically, Kenya and its neighbouring states’ demand for goods has grown rapidly, resulting in an increase in trade tonnages of 65% between 2011 and 2015.

Table 1 GDP growth data

Country	2017	2018-2022 forecast	2023-2027 forecast	Forecast % change in real economic activity in local currency over the next 10 years
Kenya	4.5%	5.3%	5.4%	68%
Ethiopia	7.5%	7.2%	6.1%	90%
South Sudan	1.2%	4.4%	4.4%	54%

Source: PWC 2018 Report

It is expected that Lamu Port will facilitate the export of national products as well as goods produced along the LAPSET Corridor. It will also facilitate the import of products to the Lamu region and the hinterland markets, in Kenya and neighbouring states.

Agriculture exports make up about 70%⁶ of foreign export earnings in East Africa and are likely to be a significant contributor to export cargo volumes at Lamu Port. Industrial exports are however expected to drive future growth in export cargo volumes, mainly due to industrial development at the planned SEZ and along the larger LAPSET Corridor.

The Ethiopian economy is growing fast, and Ethiopia is establishing itself as a competitive place to produce goods, mainly due to its low wage costs and infrastructure investment programs. Lamu Port is expected to be an attractive alternative to Djibouti Port for Ethiopian exports. These exports could address the traditional imbalance between containerised cargo imports and bulk freight exports, enabling operational efficiencies.

Demand forecast

The 2011 Feasibility Study forecasts steady growth in cargo volumes for Lamu Port up until 2035, as shown in Figure 4. The annual demand, excluding transshipment volumes, is forecast to reach 15.6 million tonnes of general cargo and 368,256 TEUs by 2028 (i.e. three years after all 6 berths are expected to be operational). These volumes are forecast to grow to 23.3 million tonnes and 668,560 TEUs by 2035.

⁶ (Odhiambo & Nyangewso, 2018).

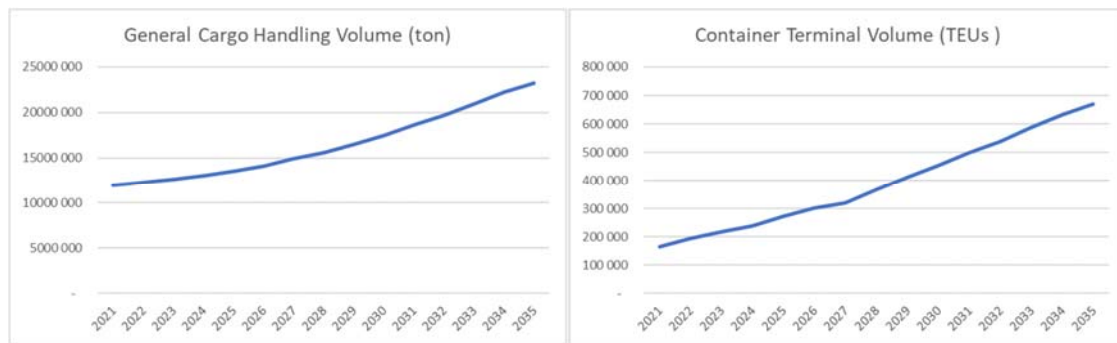


Figure 4 General cargo handling and container terminal volume forecasts

Limited competition & complementary services

The 2011 Feasibility Study highlighted that other regional ports, in particular the Mombasa Port, will not be able to cope with the increased import cargo volumes that are forecast for the region. The study estimated that if the LAPSSET Corridor's infrastructure is developed gradually, the regional market, together with the LAPSSET Corridor, will generate a surplus of 40 million tons of general cargo by 2035 which could be absorbed by Lamu Port.

3 DELIVERY & BUSINESS MODELS

3.1 PROJECT COSTS

Table 2 summarises the Project's total cost based on the estimated completion cost of Berths 1-3⁷. To date, the Government of Kenya has contributed US\$336 million to the Project, or 27% of the Project's estimated total cost (i.e. US\$ 1.2 billion).

Table 2 Estimated costs for the Project (Berths 1-6)

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

Source: KPA

3.2 FUNDING MODEL

KPA intends to procure a PPP partner that will be responsible for: funding the completion of Berths 1-3; constructing and funding Berths 4-6; and operating all six Berths. As such, the PPP partner will be required to raise around US\$900 million in debt and equity to implement the Project. It is envisaged that a Project Company or SPV will need to be established that will develop the Project and which will be owned by the PPP partner and the GoK. The NEPAD IPPF funded feasibility study that will be completed in 2019, will conclude on the most appropriate funding and ownership structures for the Project, post extensive market soundings with developers and funders.

⁷ Before adjusting for potential cost overruns

3.3 REVENUE MODEL

The Project will generate container terminal and port revenues. However, the allocation of revenue between the private sector and government will depend on the model implemented. The revenue or profit-sharing mechanism that will be adopted should however allow the Government of Kenya to recover some of its upfront investment in infrastructure and provide the Government an opportunity to share in future profits. The revenue model will be developed as part of the feasibility study in 2019.

Berths 1-3's estimated revenues are summarised below.

Table 3. Estimated revenue for Berths 1-3 (US\$)

Year	Container terminal			General Cargo			Total
	Container terminal revenue	Port revenue		Container terminal revenue	Port Revenue		Total Revenue for Terminal & Port
	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	13 600 000	317 000	35 000	12 655 000	726 000	167 000	27 500 000
2025	40 210 000	532 000	154 000	16 534 000	951 000	219 000	58 600 000
2030	74 280 000	889 000	246 000	21 941 000	1 261 000	290 000	98 907 000
2035	87 325 000	1 321 000	315 000	27 000 000	1 551 000	356 000	117 868 000

Source: 2018 LCDA presentation

Assuming the same average revenue per berth, the Project is expected to generate the revenues set out in Table 4.

Table 4. Derived revenue for the Project (Berths 1-6), US\$

Year	Container terminal			General Cargo			Total
	Container terminal revenue	Port revenue		Container terminal revenue	Port Revenue		Total Revenue for Terminal & Port
	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	27 200 000	634 000	70 000	25 310 000	1 452 000	334 000	55 000 000
2025	80 420 000	1 064 000	308 000	33 068 000	1 902 000	438 000	117 200 000
2030	148 560 000	1 778 000	492 000	43 882 000	2 522 000	580 000	197 814 000
2035	174 650 000	2 642 000	630 000	54 000 000	3 102 000	712 000	235 736 000

3.4 OPPORTUNITIES TO LEVERAGE PRIVATE SECTOR CAPITAL

A 2018 PWC Study found that most African governments have overlooked the role of ports as trade and growth facilitators, focusing instead on ports as a source of taxes. Many ports in Africa are still operated by the state rather than by the private sector as governments have failed to successfully attract private actors. Because the state has little incentive to improve operational efficiency, state ownership and operations has resulted in inefficiencies.

Several West African Ports (e.g. Tema in Ghana, Dakar in Senegal, Lomé in Togo, Cotounou, Benin, Abidjan in Cote d'Ivoire) have achieved significant operational benefits from private sector partnerships.⁸ Since most East and Southern African ports are still government owned and operated, significant opportunities exist for private sector participation in these two regions.⁹

The "design, build, finance, operate and transfer" model envisaged will allow KPA to leverage private sector capital for the Project. More importantly, it will harness private sector expertise to optimise the design of Lamu Port. Once it is operated by an experienced international operator, shipping lines are likely to see Lamu Port as a viable alternative to state-run ports in the rest of East Africa.

⁸ At least eight different independent port operators operate in West Africa (PWC, April 2018).

⁹ Only four independent operators are active in East and Southern Africa (PWC, April 2018).

A number of large international port operators already have a presence on the African continent, including Dubai Ports World, Hutchinson, APM Terminals, Bolloré, Transnet, and ICTSI. The inclusion of an such an operator in the PPP consortium will be key to the success of the Project as one of these should be able to mobilise the debt and equity required to fund the Project.

The risk sharing mechanisms that will be developed for the Project by its transaction advisors in 2019 will need to be investor friendly whilst providing upside for government via a revenue sharing mechanism.



An opportunity exists to structure project bonds that will be secured against the revenues of the Project, through NEPAD's 5% Agenda. The Project Company, which would be owned by the PPP partner and the GoK, could issue a project bond that could be attractive to local and regional institutional investors provided it achieves an investment grade credit rating. The African Infrastructure Guarantee Mechanism (AIGM) could facilitate access to risk mitigation and guarantee instruments that would result in an investment grade credit rating.

4 FINANCIAL ANALYSIS

An economic assessments was undertaken for Lamu Port in 2011 by Japan Port Consultants (JPC), which formed the basis for the Kenyan Government's investment to date. The 2011 Feasibility Study forecast an EIRR of 23.4% for Lamu Port's 32 berths and concluded that development of Lamu Port is economically viable based on an opportunity cost of 12%.

Detailed financial and economic assessments will be undertaken for the Project in 2019 by KPA's transaction advisors who will assess the financial and economic viability of the Project under different funding models.

5 JOB CREATION OPPORTUNITIES

5.1 DIRECT JOB OPPORTUNITIES FROM THE CONSTRUCTION AND OPERATION OF THE PORT

The Project's construction and operational phases are likely to create significant job opportunities as illustrated in [Table 5](#).

Table 5. Estimated average annual jobs created

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

Source: PIDA Job Creation Toolkit

The Internal Working Group on Indigenous Affairs has expressed concerns that local communities lack the necessary skills to participate in Lamu Port's job creation opportunities. In response, the Kenyan Government has committed to a capacity building programme to upskill local communities. This will include a technical training institution that will train 1 000 local youth in port and cargo operations.

It will be important that local content requirements are included in the PPP agreements to ensure that local communities and businesses derive benefit from the Project.

6 ENVIRONMENTAL, SOCIO-ECONOMIC IMPACT & SUSTAINABILITY

A **Strategic Environmental Assessment (SEA)** was conducted for the LAPSET Corridor in 2016/17 by Repcon Associates. The objective of the SEA was to identify strategic resources and linkages between environmental protection and economic growth in the project area. It also aimed at recommending mechanisms for reducing environmental and social costs associated with the achievement of economic goals.

The **2011 Feasibility Study**, undertaken by JPC, identified key items for environmental consideration and stated that the Lamu Port development will have extensive and irreversible environmental, social, and cultural impact on Lamu's unique and culturally sensitive area. Key considerations included the impact of the project on marine life (sea turtles, dugongs, etc.), fishing industry, the world heritage site of Lamu, and terrestrial floral and faunal species.

An Environmental and Social Impact Assessment (ESIA) for the construction of Berths 1-3 was conducted by Heztech Engineering Services in 2012. The report identified several risk areas, including: water quality; mangroves; fisheries; archaeological, historical and cultural sites; and land ownership. The report also proposed mitigation measures.¹⁰ The ESIA was approved by the National Environmental Management Authority (NEMA) and the Kenya Forestry Services in 2014. This approval enabled the Ministry of Transport to acquire an Environmental Impact Assessment license from NEMA prior to the construction of the Port infrastructure.

Some local communities were resettled and compensated in 2016 as part of a **Resettlement Action Plan (RAP)**.¹¹ Further mitigation measures to minimise Lamu Port's impact on local communities have been approved by the Kenyan Government. These measures include: addressing land tenure issues; introducing conflict management committees; and through trainings, providing communities with the necessary skills to be employed during project implementation.

7 RISKS AND MITIGATION MEASURES

This section focuses on the risks that are likely to be borne by the private sector who will be constructing, financing and operating the Project. The public sector will ultimately remain responsible for these risks in the event that the Project Company becomes insolvent. KPA's transaction advisors will assess these risks during the 2019/20 feasibility study and associated TA support to conclude on the optimal risk sharing approach between the private sector and the Kenyan Government.

7.1 DEVELOPMENT RISKS & MITIGATION MEASURES

Environmental and social risk: Critics such as Save Lamu have expressed their concern over the allegedly irreversible environmental and social impacts of Lamu Port given that the site includes two islands that form part of a UNESCO World Heritage Site. The methodology of the ESIA was also criticized for overlooking key environmental information, and for being limited in its analysis due to financial constraints. It is worth noting however, that the project site is actually 10 km away from the UNESCO World Heritage Site and that is therefore not expected to have a significant impact on Lamu island.

Design risks: The PPP consortium will need to be responsible for ensuring that the Port's design meets acceptable infrastructure standards. From a government perspective, design risks could be mitigated by evaluating the consortium's track record of delivering similar projects during the PPP procurement process.

Construction risks: Such risks will be borne by the PPP consortium but could be mitigated by appointing a reputable EPC contractor and fully transferring the risk onto it. From a government perspective, this risk could be mitigated by evaluating the terms of the EPC contract and the credit quality of the EPC contractor during the PPP procurement process.

7.2 OPERATIONAL RISKS & MITIGATION MEASURES

7.2.1 MARKET RISK

Geographic risk: The physical location of the port may not be attractive to shipping companies based on future shipping routes. In the absence of significant cargoes being generated by the larger LAPSSET Corridor, shipping companies may not see it as a viable alternative to Mombasa or Djibouti.

¹⁰ Significant impacts identified include: a) the loss of fishing grounds and landing sites; b) the closure of channel during port operation, impacting fishermen, traders and school children; c) the displacement of agricultural land owners in Kililana; d) the loss of coral reef in the Iweni Conservation area caused by dredging; e) the pressure and pollution from overpopulation in the Lamu County (driven by influx of migrants seeking economic opportunities); f) the disruption of the lifestyle of the minority communities, including the hunter-gatherer Boni community; and g) unresolved land issues and skewed allocations of title deeds.

¹¹ Over 528 acres of land were acquired for the port.

7.2.2 TECHNOLOGY

Performance risk: there is a risk that the infrastructure is not able to achieve the expected output and that it degrades too rapidly. By appointing an experienced PPP consortium that will be responsible for developing and operating the port, this risk should be largely mitigated as the PPP consortium will seek to invest in infrastructure that will meet performance requirements over their contract term.

Future proofing risk: Ever increasing container ship sizes may require significant upfront outlay on taller cranes, with greater reach, as well as the construction deeper berths to allow for future ship sizes.

7.2.3 INTERFACE RISK

Implementation of supporting LAPSET infrastructure: the PPP consortium will be exposed to significant risk in respect of the timely completion of enabling infrastructure that is outside of their control (e.g. roads, pipelines and railways). The PPP consortium will seek assurances and downside protection in respect of the impact of delays in the completion of certain components of the LAPSET corridor on future cargo volumes. The 135km A112 Lamu Road is currently under construction and is fully funded. This road, once completed, will create a connection between Lamu Port and Nairobi which will be 2 hours longer by car than the current travel time between the Port of Mombasa and Nairobi. Since around 70% of cargo delivered to Mombasa Port currently moves through Nairobi, the road will open up a vital trade route from Lamu Port. The planned Lamu – Garissa, road which forms part of the LAPSET Corridor, will create a more direct route to Nairobi once it is constructed.

Fiscal constraints: the Kenyan Government as well as the Ethiopian and South Sudanese governments are likely to face significant fiscal constraints that may delay the implementation of components of the LAPSET Corridor. However, the intention is for PPPs and other innovative financing mechanisms to be used to fund the majority of the LAPSET Corridor's infrastructure, reducing the countries' funding obligations.

7.2.4 PREDICTABILITY OF CASH FLOWS

Revenue risks: Revenue risk associated with the Project will be a key consideration for the PPP consortium, so it is likely to seek downside protection from the Kenyan Government in the event that cargo volumes are lower than forecast due to delays in the implementation of the LAPSET corridor. A comprehensive demand and traffic study should be undertaken by KPA and should be shared with PPP bidders. This would increase their knowledge of the demand risk associated with the Project and enable informed decisions and risk pricing. KPA's transaction advisors will also need to develop a revenue mechanism that is both investor friendly in respect of delays, whilst ensuring that the Kenyan Government benefits from higher than expected cargo volumes.

Lack of contracted revenue: A model where the PPP partner does not benefit from contracted bulk services and landlord related revenue (e.g. lease or rental payments for landside facilities, pilotage, wharfage, conservancy) is likely to expose the private sector partner to more risk as it will be wholly reliant on unpredictable cargo volumes.

Regulatory risks: Regulatory risks relate to the tariffs that a PPP consortium will be able to charge the users of Berths 1-6. The extent to which the consortium will be subject to regulatory risk is unclear at this stage. This risk will need to be clearly articulated to PPP bidders during the procurement process.

Interest rate risks: The PPP consortium will bear interest risk but could seek to enter into fixed rate loans to mitigate the risk.

Inflation risks: It is expected that the PPP consortium will be able to pass this risk onto users via the tariff mechanism that will be developed by KPA's transaction advisors.

Rerouting risk: if the Project is not operated efficiently, or if new developments in the region make a different route more efficient, logistics or shipping companies can reroute cargo to nearby ports, which could adversely impact Lamu Port's revenues. A demand and traffic study should identify these risks and develop scenarios that could be tested to better understand the potential impact.

7.2.5 CREDIT RISK

Nature of asset ownership: The extent to which the private sector owns, or derives economic benefit, from the port assets helps determine the extent to which it can maximise returns and repay its debt obligations. It will also reduce recovery risk for creditors in the event of default, resulting in a more bankable project.

Capital programme risk: The PPP partner may choose to minimise maintenance spend¹² over its concession period which could impact the credit quality of bonds and debt issued/raised by the Project.

Key credit metrics: For bonds or debt issue/raised by the Project to achieve an investment grade credit rating, the facilities will need to be structure to achieve favourable cash interest coverage debt service cover ratios. The 2019/20 feasibility study should conclude on whether these metrics could be achieved and what credit enhancement mechanisms could be deployed to achieve investment grade credit ratings.

7.2.6 TRACK RECORD

KPA has successfully implemented six berths at Mombasa Port since its establishment in 1978. Berths 16-18 were developed in the 1980s and Berth 19 in 2013. KPA also completed two further berths (i.e. Berths 20 and 21) as part of the Mombasa Port Development Programme in February 2016.

8 TIMELINES & MILESTONES

The Figure below illustrates the project preparation milestones and target dates to develop the requisite tender documents and reach financial close.



Figure 5 Lamu Port timeline

¹² Moody's view 3% of revenues as being a reasonable minimum level to maintain equipment in good condition. A lesser percentage may be viewed as credit negative

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