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Report No: PAD646

INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT APPRAISAL DOCUMENT

ON A
PROPOSED CREDIT
IN THE AMOUNT OF SDR 52.2 MILLION
(US\$80 MILLION EQUIVALENT)

TO THE

REPUBLIC OF SOUTH SUDAN

FOR A

SOUTH SUDAN – EASTERN AFRICA REGIONAL TRANSPORT, TRADE AND
DEVELOPMENT FACILITATION PROJECT
FIRST PHASE OF PROGRAM

April 15, 2014

Transport Sector
Africa Regional Integration,
Africa Region

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CURRENCY EQUIVALENTS

(Exchange Rate Effective: November 30, 2013)

Currency Unit = South Sudan Pound (SSP)

SSP3.50 = US\$1

US\$1 = SDR 0.65137668

FISCAL YEAR

July 1 - June 30 (South Sudan)

ABBREVIATIONS AND ACRONYMS

AADT	Average Annual Daily Traffic
AC	Asphalt Concrete
AfDB	African Development Bank
AIDS	Acquired Immunodeficiency Syndrome
AU	African Union
BADEA	Arab Bank for Economic Development of Africa
CAR	Central Africa Republic
CEO	Chief Executive Officer
COMESA	Common Market for Eastern and Southern Africa
CPMS	Corridor Performance Monitoring System
CPS	Country Partnership Strategy
ccTLD	country code top-level domain
DA	Designated Account
DB	Design and Build
DBST	Double Bituminous Surface Treatment
DDR	Disarming, Demobilization and Reintegration
DPP	Directorate of Public Procurement
DRC	Democratic Republic of the Congo
EA	Environmental Assessment
EAA	External Audit Agent
EAC	Eastern Africa Community
EATTFP	East Africa Trade and Transport Facilitation Project
EIB	European Investment Bank
EIRR	Economic Internal Rate of Return
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plan
EU	European Union
FM	Financial Management
GAP	Governance & Integrity Improvement Action Plan
GDP	Gross Domestic Production
GoK	Government of Kenya
GPN	General Procurement Notice
GRM	Grievance Redressing Mechanism
GRSS	Government of the Republic of South Sudan
HIV	Human Immunodeficiency Virus

ICB	International Competitive Bidding
ICT	Information and Communication Technology
IDA	International Development Association
IEG	Independent Evaluation Group
IFR	Interim Un-audited Financial Reports
IGAD	Intergovernmental Authority on Development
IPF	Investment Project Financing
IPPDR	Interim Public Procurement and Disposal Regulations
IMF	International Monetary Fund
INT	Integrity Vice Presidency
ISA	International Standards on Auditing
ISN	Interim Strategy Note
ISR	Implementation Status Report
IXP	Internet exchange point
JICA	Japan International Cooperation Agency
JMC	Joint Inter-Ministerial Committee
KEBS	Kenyan Bureau of Standards
KENAO	Kenya National Audit Office
KeNHA	Kenya National Highway Authority
KEPHIS	Kenya Plant and Health Inspectorate Services
KeRRA	Kenya Rural Roads Authority
KES	Kenyan Shilling
KFW	German Bilateral Aid
KICTA	Kenya Information and Communications Technology Agency
KPA	Kenya Ports Authority
KRA	Kenya Revenue Authority
KTSSP	Kenya Transport Sector Support Project
KURA	Kenya Urban Roads Authority
M&E	Monitoring & Evaluation
MoAF	Ministry of Agriculture and Forestry
MoFCEP	Ministry of Finance, Commerce and Economic Planning
MoTWC	Ministry of Tourism and Wildlife Conservation
MoTI	Ministry of Transport and Infrastructure, Kenya
MoTPS	Ministry of Telecommunication and Postal Services
MoU	Memorandum of Understanding
MTRB	Ministry of Transport, Roads and Bridges, South Sudan
NAC	National Audit Chamber of South Sudan
NBS	National Bureau of Statistics
NCB	National Competitive Bidding
NCBP	Non-concessional Borrowing Policy
NCMC	National Corridor Management Committee
NCTIP	Northern Corridor Transport Improvement Project
NCTTCA	Northern Corridor Transit Transport Coordination Authority
NEPAD	New Partnership for Africa's Development
NOFBI	National Optical Fiber Backbone Infrastructure
NPV	Net Present Value
NUTIP	National Urban Transport Improvement Project
OD	Origin Destination
OPRC	Output and Performance Based Road Contract

ORAF	Operational Risk Assessment Framework
OSBP	One Stop Border Post
PAP	Project Affected People
PC	Program Coordinator
PDO	Project Development Objective
PIM	Project Implementation Manual
PIU	Project Implementation Unit
PMT	Project Management Team
POC	Program Oversight Committee
PPA	Project Preparation Advance
PPDA	Public Procurement and Disposal Act
PPDR	Public Procurement and Disposal Regulations
PPOA	Public Procurement Oversight Authority
PPP	Public Private Partnership
PRG	Partial Risk Guarantee
RAP	Resettlement Action Plan
RCIP	Regional Communications Infrastructure Program
RI	Regional Integration
SADC	Southern Africa Development Community
SCF	Standard conversion factor
SIL	Specific Investment Loan
SOE	Statement of Expenditure
SOP	Series of Projects
SPN	Specific Procurement Notices
SPV	Special Purpose Vehicle
SSCS	South Sudan Customs Services
SSDP	South Sudan Development Plan
SS-MoTWC	South Sudan Ministry of Tourism and Wildlife Conservation
SSNBS	South Sudan National Bureau of Standards
SSP	South Sudan Pound
SSRA	South Sudan Roads Authority
TA	Technical Assistance
TMEA	Trade Mark East Africa
ToR	Terms of Reference
USAID	United States Agency for International Development
VOC	Vehicle operating costs
VSAT	Very Small Aperture Terminals
WCO	World Customs Organization
WTO	World Trade Organization

Regional Vice President:	Makhtar Diop
Regional/Country Director(s)	Colin Bruce, Bella Bird, Diarietou Gaye
Sector Director:	Jamal Saghir
Sector Manager:	Supee Teravaninthorn
Task Team Leader:	Tesfamichael Nahusenay Mitiku
Co- Team Leader:	Josphat Sasia

AFRICA
South Sudan – Eastern Africa Regional Transport, Trade and Development Facilitation
Project - First Phase of Program

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PAD DATA SHEET

Africa

*South Sudan- Eastern Africa Regional Transport , Trade and Development Facilitation Project
First Phase of Program*

PROJECT APPRAISAL DOCUMENT

*AFRICA
AFTRR*

Report No.: PAD646

Basic Information			
Project ID P131426	EA Category B - Partial Assessment	Team Leader Tesfamichael Nahusenay Mitiku	
Lending Instrument Investment Project Financing	Fragile and/or Capacity Constraints []		
	Financial Intermediaries []		
	Series of Projects [X]		
Project Implementation Start Date 8-May-2014	Project Implementation End Date 30-Jun-2019		
Expected Effectiveness Date 15-Sep-2014	Expected Closing Date 30-Dec-2019		
Joint IFC No			
Sector Manager Supee Teravaninthorn	Sector Director Jamal Saghir	Country Director Colin Bruce	Regional Vice President Makhtar Diop
Borrower: Ministry of Finance and Economic Planning			
Responsible Agency: Ministry of Roads and Bridges			
Contact: Telephone No.:	James Alam 211-957-102-093	Title: Email:	Project Coordinator, PMT, Chief Engineer Roads (MTRB) alamjj2@yahoo.co.uk
Project Financing Data(in USD Million)			
[] Loan	[] Grant	[] Guarantee	
[X] Credit	[] IDA Grant	[] Other	
Total Project Cost:	255.00	Total Bank Financing:	80.00
Financing Gap:	0.00		

Financing Source	Amount
BORROWER/RECIPIENT	25.00
International Development Association (IDA)	80.00
China Export Import Bank	150.00
Total	255.00

Expected Disbursements (in USD Million)

Fiscal Year	2015	2016	2017	2018	2019	2020	0000	0000	0000
Annual	15.00	24.00	20.00	15.00	6.00	0.00	0.00	0.00	0.00
Cumulative	15.00	39.00	59.00	74.00	80.00	80.00	0.00	0.00	0.00

Proposed Development Objective(s)

The objective of the Project is to enhance regional connectivity and integration of the Recipient with its Eastern Africa neighboring countries, and its access to sea ports.

Components

Component Name	Cost (USD Millions)
Support to the MTRB	222.00
Facilitation of regional transport, trade and development	12.00
Institutional development and program management	6.00
Connecting Juba with fiber optics	15.00

Institutional Data

Sector Board

Transport

Sectors / Climate Change

Sector (Maximum 5 and total % must equal 100)

Major Sector	Sector	%	Adaptation Co-benefits %	Mitigation Co-benefits %
Transportation	Rural and Inter-Urban Roads and Highways	55		
Public Administration, Law, and Justice	Public administration-Transportation	20		
Information and communications	General information and communications sector	15		
Industry and trade	General industry and trade sector	10		
Total		100		

I certify that there is no Adantation and Mitigation Climate Change Co-benefits

information applicable to this project.			
Themes			
Theme (Maximum 5 and total % must equal 100)			
Major theme	Theme	%	
Trade and integration	Trade facilitation and market access	50	
Trade and integration	Regional integration	30	
Financial and private sector development	Infrastructure services for private sector development	20	
Total		100	
Compliance			
Policy			
Does the project depart from the CAS in content or in other significant respects?	Yes []	No [X]	
Does the project require any waivers of Bank policies?	Yes []	No [X]	
Have these been approved by Bank management?	Yes []	No []	
Is approval for any policy waiver sought from the Board?	Yes []	No [X]	
Does the project meet the Regional criteria for readiness for implementation?	Yes [X]	No []	
Safeguard Policies Triggered by the Project	Yes	No	
Environmental Assessment OP/BP 4.01	X		
Natural Habitats OP/BP 4.04	X		
Forests OP/BP 4.36		X	
Pest Management OP 4.09		X	
Physical Cultural Resources OP/BP 4.11	X		
Indigenous Peoples OP/BP 4.10	X		
Involuntary Resettlement OP/BP 4.12	X		
Safety of Dams OP/BP 4.37		X	
Projects on International Waterways OP/BP 7.50		X	
Projects in Disputed Areas OP/BP 7.60		X	
Legal Covenants			
Name	Recurrent	Due Date	Frequency
Qualified Independent firm - Resettlement		15-Mar-2015	
Description of Covenant			
The Recipient shall, no later than six (6) months from the Effective Date, employ and maintain			

throughout the implementation a qualified independent firm to advise the Recipient on the progress achieved in the carrying out of the resettlement process under Part 1 of the Project, and report on related supervision and monitoring of safeguard document (FA Schedule 2, Section I. D. 3.)

Name	Recurrent	Due Date	Frequency
Operational accounting system		15-Mar-2015	

Description of Covenant

The Recipient shall, not later than six (6) months after the Effective Date, set up an operational accounting system within the PIU and carry-out the related training of the relevant staff in form and substance satisfactory to the Association. (FA Schedule 2, Section II, B. 4.)

Name	Recurrent	Due Date	Frequency
Cofinancing Deadline		14-Sep-2015	

Description of Covenant

The Co-financing Deadline for the effectiveness of the Co-financing Agreement is twelve (12) months from the Effective Date. (FA Article 4.02)

Name	Recurrent	Due Date	Frequency
Counterpart Funding Account	X		Quarterly

Description of Covenant

Maintain until the completion of the Project, in a commercial bank, a separate account, established under terms and conditions acceptable to the Association (“Counterpart Fund Account”), into which the Recipient shall deposit from time to time, from its own resources, its counterpart contribution corresponding to its share of the cost of implementation - FA, Schedule 2, Section V. 1 (a)

Name	Recurrent	Due Date	Frequency
Advance Counterpart deposit	X		Quarterly

Description of Covenant

No later than 60 days after the Effective Date, deposit into the Counterpart Fund Account an initial advance corresponding to its share of the cost of implementation, and thereafter replenish the Counterpart Fund Account on a quarterly basis - FA Schedule 2, Section V. 1. (b)

Name	Recurrent	Due Date	Frequency
Funds Exclusivity	X		Quarterly

Description of Covenant

Ensure that funds deposited into the Counterpart Fund Account shall be used exclusively to finance expenditures under its respective Part of the Project - FA Schedule 2, Section V. 1. (c)

Conditions

Source Of Fund	Name	Type
IDA	Effectiveness Condition - Article 5.01 of the Financing Agreement (FA)	Effectiveness

Description of Condition

The Recipient has executed the MOU for Implementation Framework in form and substance satisfactory to the Association.

Source Of Fund	Name	Type	
IDA	Disbursement - Fa Schedule 2, Section IV, B,1(b)	Disbursement	
Description of Condition			
No withdrawal shall be made under Category 2, until the Recipient has recruited a Project financial management specialist for South Sudan Customs Services (SSCS), with qualifications and terms of reference satisfactory to the Association.			
Source Of Fund	Name	Type	
IDA	Disbursement - Fa Schedule 2, Section IV, B,1(c)	Disbursement	
Description of Condition			
No withdrawal shall be made under Category 4, until the Recipient has executed the Fiber Optic MOU with the Kenyan Counterparts in form substance satisfactory to the Association.			
Team Composition			
Bank Staff			
Name	Title	Specialization	Unit
Wolfgang M. T. Chadab	Senior Finance Officer	Senior Finance Officer	CTRLA
Hassine Hedda	Senior Finance Officer	Finance Officer	CTRLA
Gibwa A. Kajubi	Senior Social Development Specialist	Senior Social Development Specialist	AFTCS
Josphat O. Sasia	Lead Transport Specialist	Co-Task Team Leader	AFTTR
Yasmin Tayyab	Senior Social Development Specialist	Senior Social Development Specialist	AFTCS
Alexandra C. Bezeredi	Regional Environmental and Safeguards Advisor	Regional Environmental and Safeguards Advisor	AFTSG
Ntombie Z. Siwale	Senior Program Assistant	Senior Program Assistant	AFTTR
Tesfamichael Nahusenay Mitiku	Sr Transport. Engr.	Team Leader	AFTTR
Benqing Jennifer Gui	Information Officer	Information Officer	TWICT
Adenike Sherifat Oyeyiola	Sr Financial Management Specialist	Sr Financial Management Specialist	AFTME
Teguest Demissie	E T Temporary	Contractor: Telesec Temporary Services	AFTTR
Svetlana Khvostova	Operations Officer	Operations Analyst	AFTSG
Maiada Mahmoud Abdel Fattah Kassem	Finance Officer	Finance Officer	CTRLA
Tadatsugu Matsudaira	Senior Trade Facilitation Specialist	Senior Trade Facilitation Specialist	AFTTR
Juliana C. Victor-Ahuchogu	Senior Monitoring & Evaluation Specialist	Senior Monitoring & Evaluation Specialist	AFTDE

Daniela Anna B. D. Junqueira	Senior Counsel	Senior Counsel	LEGAM		
Muhammad Zulfiqar Ahmed	Sr Transport. Engr.	Sr Transport. Engr.	AFTTR		
Joel Buku Munyori	Senior Procurement Specialist	Senior Procurement Specialist	AFTPE		
Timothy John Charles Kelly	Lead ICT Policy Specialist	Senior ICT Policy Specialist	TWICT		
Lucy Anyango Musira	Program Assistant	Program Assistant	AFCE2		
Haileyesus Adamtei	Highway Engineer	Highway Engineer	AFTTR		
Suzan Poni Piwang	Team Assistant	Team Assistant	AFMJB		
Josphine Kabura Kamau	Financial Management Specialist	Financial Management Specialist	AFTME		
Anjani Kumar	Senior Procurement Specialist	Senior Procurement Specialist	AFTPE		
Emmanuel Taban	Highway Engineer	E T Consultant	AFTTR		
Bedilu Amare Reta	Consultant	Environmental Specialist	AFTHE		
Zemedkun Girma Tessema	Sr Transport. Spec.	Sr Transport. Spec.	AFTTR		
Non Bank Staff					
Name	Title	Office Phone	City		
Locations					
Country	First Administrative Division	Location	Planned	Actual	Comments

I. STRATEGIC CONTEXT

A. Regional Context

Deepening regional integration – economic opportunity for South Sudan & neighbors

1. The countries in the Eastern Africa sub-region, including Kenya, Uganda, Tanzania, Burundi, Rwanda, Ethiopia, eastern Democratic Republic of Congo (DRC), and South Sudan recorded an average annual economic growth rate of about 5 percent over the last decade. The sub-region is potentially a large regional market of over 200 million people. Relatively poor transport links between these countries, the less than satisfactory performance of the ports of Mombasa and Dar-es-Salaam, the high cost of internet access in South Sudan and a range of technical, political and policy-related factors create obstacles and increase costs to the movement of goods, people and services, and act as a major impediments on intra- and inter-regional trade, contributing to the under development of the sub-region. These barriers present huge challenges to prevailing economic activities but also provide great opportunities for transformation of economies and growth prospects, in particular for the region's landlocked countries, if they can be successfully overcome and effectively managed.

2. The East African Community (EAC)¹ is the regional economic community for the sub-region and is implementing a common market protocol and a common customs territory. Some countries in the sub-region are also members of the three regional economic communities, including: the Common Market for Eastern and Southern Africa (COMESA) and the, Southern Africa Development Community (SADC), which together with the EAC are striving to form the largest free trade area in Africa, under a Tripartite arrangement. The trade and transport agenda of the regional economic communities puts a lot of emphasis on creating trade corridors without borders and barriers, on facilitating trade, and promoting economic integration by removing non-tariff barriers. The Gross Domestic Product (GDP) for the EAC countries, in 2012, was estimated to be about US\$95 billion. The eastern neighboring countries of South Sudan, namely: Kenya, Uganda and Ethiopia, in 2012 had a population of 43.2 million, 36.3 million and 91.7 million, respectively and their GDP was estimated to be about US\$37.2 billion, US\$19.9 billion and US\$43.1 billion respectively. South Sudan with a population of about 10.8 million² had a GDP of US\$9.3 billion, in 2012. All of these countries are categorized as low income countries.

3. Formal trade between South Sudan and its neighbors, Ethiopia and Kenya, is restricted due to the limited transport access. The proposed program contributes to the facilitation of trade amongst the four countries in the sub-region, namely: South Sudan, Uganda, Ethiopia and Kenya, through the improvement of the Juba - Nadapal road, which serves as a primary corridor connecting South Sudan and Kenya and with a spur road links Uganda and Ethiopia, together with other focused interventions, including a significant trade facilitation component. Further, the direct road link through Juba-Nadapal - Eldoret corridor will enhance trade between South Sudan and Kenya, one of the high potential trade corridors of the Eastern Africa sub-region.

¹ Kenya, Rwanda, Burundi, Tanzania, Uganda

² World Bank (2013) World Development Indicators

4. The Juba - Nadapal - Eldoret road³ is an extension of one of the EAC road corridors, – the Biharamulo - Mwanza - Musoma - Sirari - Lodwar - Lokichoggio corridor (designated as EAC corridor No.3), linking South Sudan, Kenya, Tanzania and Rwanda, and further connecting to the Dar-es-Salaam – Dodoma – Isaka corridor, which joins the Trans East African Highway at Dodoma. Part of the Juba - Nadapal road, Juba - Kapoeta, serves the Kampala - Juba - Addis corridor, which links Uganda, South Sudan and Ethiopia, and further connects to Djibouti port.

5. However, as it would be complex to develop all these corridors under one program, this specific program would focus on segments within South Sudan and Kenya, through the implementation of interventions improving the efficiency of the Juba - Nadapal - Eldoret corridor, which has high potential to attract high volume of trade and traffic, as well as facilitating the development and commercial extraction of the natural resources on both sides of the two countries. Further, this approach would strengthen the complementarity of this program with other initiatives in the sub-region, such as the Kampala-Juba-Addis Ababa corridor development, facilitated by the African Development Bank (AfDB), which shares in common the Juba – Kapoeta section (240 km) and links South Sudan to Djibouti port.

Enhancing export oriented economic growth

6. The trade flows through the main sea ports in Eastern Africa are dominated by imports, which represent about 80 percent⁴ of the total trade volume, while export trade constitutes only about 20 percent. An assessment⁵ carried out to identify the development potential along the regional corridors in eastern and southern Africa shows that the exportable items from the region are currently limited and focused on mining products, including export of oil from South Sudan (detailed statistics presented in Annex 7). Intra-regional trade is also at a very low level. This imbalance demands harnessing all export development potential in which the improvement of the proposed road, trade facilitation measures, extension of the fiber-optic cable from Lokichoggio to Juba, export processing zones, and simplification of import-export processes, could play a catalytic role. The anticipated development will also facilitate intra-regional trade, including exports of South Sudan’s agricultural products to markets in the sub-region.

7. **South Sudan** with a land area of about 648,000 sq km is endowed with abundant natural resources including a large amount of good quality rain-fed agricultural land, potentially irrigable land, aquatic and forest resources, and significant oil reserves. Yet more than 50 percent of the population is poor with indicators of human well-being are among the lowest in the world. The economy of South Sudan is dominated by oil exports. Geographically, the South Sudan states of Eastern Equatoria and Southern Jonglei are the closest areas to sea ports and the agricultural market in the neighboring countries. Moreover, the immense potential of agriculture

³ The Juba – Eldoret corridor starts from Juba, the Capital of South Sudan and pass through Torit, Lobira (Junction to Uganda through Kitgum and Gulu), Kapoeta (junction to Ethiopia and Djibouti through Boma), Nadapal (the border between South Sudan and Kenya located about 360 km away from Juba), Lokichoggio, Lokichar, Lodwar, Marich Pass, Kitale-Laseru, and reach Eldoret located about 595 km from Juba, which is a major node where roads connecting to Mombasa, Tanzania, Kampala meet.

⁴ Trade Mark East Africa (TMEA), presentation to the Juba-Eldoret road financing donors’ consultative meeting, Nairobi, January 2013.

⁵ Nathan Associates Inc, Corridor Diagnostic Study Northern and Central Corridors of East Africa, April 2011

and mineral exploitation makes this part of South Sudan a prime area for attracting foreign investment. The development potential along the corridor includes: (a) agriculture production (forestry, fishery, tea, coffee, cereals, live-animal and animal products); (b) cement and lime industry; and (c) mining of gold and semi-precious stones. There is a potential of enhanced petroleum extraction and the benefits of extending high-speed internet access to Juba and several state capitals. The improved corridor will also facilitate the delivery of social and administrative services as well as promotion of commercial services, including storage facilities and road side businesses.

8. **Kenya** with a land area of 580,400 sq. km is endowed with agricultural land, minerals and abundant tourism potential, which remain to be developed in the northern part of the country. The corridor helps the promotion of export based growth in the north western part of Kenya by facilitating the development of: (a) agriculture and livestock (fisheries in Lake Turkana); (b) irrigated agriculture in the Turkwel and Wei Wei river basins; and (c) tourism. It will also support petroleum extraction in the region which has been discovered in commercially viable quantities. Further, the corridor improvement will facilitate the delivery of social and administrative services and expansion of small and medium size enterprises.

B. Sub-Regional Corridors, Sectoral and Institutional Context

Sectoral Context - Promoting Regional Trade, Interconnectivity and Economic Development:

9. The road transport infrastructure in the sub-region is currently in poor condition. Fuel and logistical costs are high due to inefficient customs clearances and limited competition in the transport market. South Sudan faces more bottlenecks than other East African countries because of missing transport links, dilapidated and disconnected infrastructure. Only 4,000 km of the 17,000 km classified roads are all-weather gravel roads, while the remaining are earth roads many of which are impassable after heavy rain. The poor road condition means that freight tariffs can reach US\$0.20 per ton kilometer, which is about three times that of the East African average. The road transport network in Kenya is the largest in terms of size compared to the other countries in East Africa. The classified network totals almost 160,900 km. The major corridors linking Juba to Eastern seaports and major commercial centers are summarized in Table 1 and the map in Annex

Table 1 – Key features of the main corridors

Corridor	Distance Juba to seaport (km)	Time Juba to seaport	Transit regimes	Corridor transport modes
1. Nimule via Kampala	Mombasa - 1,820	6-9 days	Two	Road, rail and pipeline
2. Nimule via Soroti	Mombasa - 1,630	6-9 days	Two	Road, rail, and pipeline
3. Boma	Djibouti - 1,900	n/a	Two	Road and rail
4. Kaya	Mombasa - 1,950	7-11 days	Two	Road, rail and pipeline
5. Nadapal ⁶	Mombasa - 1,745	5-8 days	One	Road, rail, and pipeline

⁶ The Lamu port, which branches off at about 200 km away from Nadapal, at Lokichar, makes the distance between Juba and the Port about 1,500 km.

10. The Kenya - Uganda railway accounts for only about four percent of the cargo handled through the port of Mombasa. Plans exist for extending several railway lines, for example, the extension of the Port Sudan - Wau line to Juba and Gulu to merge with the operational railway at Tororo. There is an oil pipeline running between Mombasa and Eldoret with a spur to Kisumu (Lake Victoria) in Western Kenya and serving several East African countries.

11. Empirical evidence suggests that only about a quarter of the delays along the major transport corridors are as a result of poor infrastructure, the rest being due to non-tariff barriers and poor trade facilitation. However, due to the current state of the road between Juba and Marich Pass, where the road surface has deteriorated heavily and the drifts are washed out, trucks couldn't use the corridor and trade movement is limited to smaller vehicles charging excessive tariff. Trade between the countries in the sub-region is restricted mainly by: high logistics costs, customs regulations, informal cartels and limited competition in the trucking industry along the South Sudan regional transport corridors. Supply chains to South Sudan and the transit routes are long and rely on a sequence of discrete operations involving many procedures, agencies and services, all of which are prone to rent-seeking activity and over regulation. Insufficient trust, harmonization and simplification of trade documentation add to the complexity of the transit regimes and increase the cost of door-to-door deliveries. The program will promote sound trade facilitation measures that will help to reduce non-tariff barriers and strengthen the institutional and legal framework to enhance the efficiency of border management and cross border coordination. This should reduce the time and costs for traded goods and in particular lower the price that consumers pay.

Institutional Context on Transport and Trade facilitation – much to be done

12. In South Sudan, the newly merged (in July 2013) Ministry of Transport, Roads and Bridges (MTRB) is responsible for overall transport sector policy and administration of road, air, rail and river transport. The establishment of the South Sudan Roads Authority (SSRA) to focus on the maintenance and management of road development projects is underway, while the creation of a Road Fund has been accepted in principle. The South Sudan Customs Services (SSCS) has been established under the Ministry of Finance, Commerce and Economic Planning (MoFCEP). Although, MTRB has been managing donor supported projects its capacity to administer the development and maintenance of the transport system is limited. SSCS has been providing customs services based on the weak capacity inherited from Sudan and it is at its infancy. Other institutions playing critical roles in cross-border traffic movement, such as immigration and police are recently re-established and need significant strengthening. There are also restrictions on the supply of road haulers in country, reflecting the recent history and the relatively small market. In addition, to MoFCEP, the lead institution on customs, commerce and development, and MTRB, the trade and development facilitation will engage: the ministries⁷ responsible for agriculture, wildlife and telecommunication, as well as the South Sudan National Bureau of Standards (SSNBS). These institutions are also at their formative stage and have limited capacity to implement and coordinate the activities envisaged under the program. The engagement of these key stakeholders in the management of cross border movement of goods,

⁷ The ministries responsible for agriculture, wildlife and internal affairs, and telecommunication are: the Ministry of Agriculture and Forestry (MoAF), the Ministry of Tourism and Wildlife Conservation (MoIWC), and the Ministry of Telecommunication and Postal Services (MoTPS), respectively

people and services will be coordinated by a national corridor management committee to be established through the support to be provided under this program.

13. In 2007, three new road authorities were created in Kenya to manage the entire road network, Kenya National Highways Authority (KeNHA), Kenya Rural Roads Authority (KeRRA), and Kenya Urban Roads Authority (KURA). This arrangement was intended to separate policy formulation from execution of programs, and to provide greater transparency and accountability in the use of allocated resources. The 2010 Constitution has brought further changes creating two categories of roads, county and national and leading to the consolidation of all sub-sectors of transport under one ministry, the Ministry of Transport and Infrastructure (MoTI), re-established in April 2013. The MoTI has an oversight responsibility across all modes of transport. Kenya has established a Road Maintenance Fund, based on fuel levy, which generates about US\$300 million annually for road maintenance. A Customs Department is established as part of Kenya Revenue Authority (KRA) and its capacity needs to be strengthened. Border management and regional trade are complex and call for the engagement of key stakeholder institutions, such as Kenyan Bureau of Standards (KEBS), Kenya Plant and Health Inspectorate Services (KEPHIS), Kenya Ports Authority (KPA), Ministry of Health, and Kenya Police. These institutions have been in place for a long period of time and have developed some capacity.

14. The EAC member states are implementing a Customs Union Protocol to speed up regional trade integration and cooperation. This Protocol was enacted, and a Customs Management Law in the respective countries was approved in December 2004, thereby allowing for a common external tariff and reduced internal tariffs. The EAC member countries are also implementing a common market protocol and a common customs territory. The EAC member countries are linking the Customs Department at the EAC Secretariat in Arusha with their respective Revenue Authorities. Under the common market protocol EAC member countries have accepted to remove restrictions on the free movement of workers and on the right of establishment, as well as pursuing mutual recognition of academic and professional qualifications. South Sudan formally has applied to join the EAC.

Impacts of the Conflict in South Sudan on the Project

15. The conflict that broke out in mid-December 2013 in South Sudan, between the forces loyal to the former vice president, Dr. Riek Machar, and the army loyal to the Government, led by President Salva Kiir, has put the progress towards a coherent and stable South Sudan at risk. Though the political dispute that triggered the conflict was not necessarily based on ethnic grounds, although it coincided with heightened ethnic and political grievances that have sparked armed clashes and targeted ethnic killings. The conflict that broke out in Juba has turned into fighting in the tribal base of the former Vice President, mainly in the north eastern part of South Sudan. The nation's capital Juba remains tense, and the security situation in the country is unpredictable, especially in areas affected by the violence. The conflict has left many people dead and forced thousands of others seeking shelter within UN peacekeeping bases or refuge in neighboring countries. Following peace talks between the two groups, hosted by regional leaders in Addis Ababa, Ethiopia, a cessation of hostility agreement was signed on January 23, 2014, with the opportunity of a peaceful resolution of the conflict. Negotiations to resolve the conflict are in progress.

16. The project is located in one of the relatively more peaceful areas of the country, so far not affected by the outbreak of the violence. It will help to build the core infrastructure and institutions of the country, and will contribute to improved livelihoods of the people in the project influence area. Further, as the border at Nadapal will be the main gateway to South Sudan, the Juba-Nadapal corridor will be a key import-export corridor serving the entire country. The Government considers the regional project as a top priority and has a strong desire to continue with the operation.

17. If the conflict cannot be resolved quickly, it may cause some risks to the project, which include: (a) the attention of the government could be diverted to conflict management and implementation capacity may be compromised; (b) the ability of the government to ensure law and order in the project area, which could impact on the safety of contractors working on the project and could lead to abandonment of the works; (c) the risk level of the country will be high and response to invitation of bids may not only be limited but costs of construction could rise to reflect this; (d) the ability of the government to implement the project may be compromised and an independent project management firm or a UN Agency like United Nations Office of Project Services (UNOPS) may have to be engaged to be manager of the civil works contracts and deliver the monitoring and supervision services of the road improvement and fiber installation, as well as the Technical Assistance to the modernization of the SSCS; and (e) the government contribution to the project may not flow as expected and counterpart funding may be required (including costs related to resettlement). Mitigating arrangements include: arranging adequate security for the operation and meeting any cost escalations. Contractors' logistics may not be a major challenge as the transportation of equipment and materials to the project site will be through Nadapal, which is the starting point for the road to be upgraded in South Sudan's territory. For the fiber optic construction, microwave or even satellite communication could be used as a short-term substitute for fiber optic cable in areas that may be closed to terrestrial construction.

Rationale for Bank involvement

18. The proposed program meets the Guidelines for IDA Regional Program Funding as: (a) it covers a post conflict country, South Sudan, and a contiguous economically inter-dependent country Kenya; (b) enhances transport and communication connectivity among South Sudan, Uganda, Kenya, and Ethiopia; (c) the expected transit efficiency gains cannot be fully achieved without the direct and integrated involvement of the countries sharing the corridor, namely South Sudan and Kenya; (d) the expected benefits can only be achieved through the simultaneous implementation of an integrated set of infrastructure trade and development facilitation in the countries along the corridor; (e) the program enhances competition among transport corridors in the sub-region; and (f) the proposed road is part of EAC's corridor No. 3 linking South Sudan, Kenya, Tanzania and the Great lake countries, serving more than three contiguous countries, although this program focuses on linking South Sudan and Kenya.

19. The World Bank's role is consistent with the overall strategy of supporting regional road transport, transit and communication facilitation and development program on the main transport corridors in East Africa. Through this project, the World Bank will be part of a broader initiative, together with a number of multilateral and bilateral donors.

Partnership with other Development Partners

20. The program is also one of the first initiatives to promote the joint partnership between the World Bank and China EXIM Bank to enhance growth and poverty reduction in Africa. The World Bank and China EXIM Bank are parallel co-financing partners to the road upgrading works and promote South-South learning through knowledge transfer in infrastructure development. The joint initiative will also help in developing strategies to create synergy of the efforts to support Africa's development by the two development partners.

C. Higher Level Objectives to which the Program and Project Contributes

21. The proposed overall program and the project are aligned with and supports the core pillars of the Africa Strategy⁸, mainly the competitiveness and employment pillar, by improving the business environment and reducing transport and telecommunication costs. It also supports the vulnerability and resilience agenda, as it aims to enhance trade competitiveness and regional integration, contributing to rebuilding the new post-conflict nation, South Sudan. The proposed program is consistent with the objectives of the World Bank Regional Integration Assistance Strategy for Sub-Saharan Africa (RIAS 2008).

22. The overall program and the project are also aligned with the Almaty Action Program of the United Nations for landlocked countries, and the regional integration initiatives of the African Union (AU) / New Partnership for Africa's Development (NEPAD). The inclusion of the ICT connectivity component also fits well with the commitment of the World Bank and the African Development Bank on the transformative effect of ICTs in Africa (eTransform Africa, 2012).

23. The proposed overall program and the project support the objectives of the Country Assistance/Partnership Strategies (CASs) for South Sudan and Kenya. The draft Interim Strategy Note (ISN - FY13 to FY15) for South Sudan focuses on enhancing governance, non-oil based economic development and improving livelihoods, which attaches a high priority to transport, connectivity and trade operations. Under the ISN, a transport operation is suggested to support the rebuilding of the critical core road network of South Sudan and enhance regional integration through upgrading of the Nadapal to Juba road.

24. The proposed overall program and project are also aligned with South Sudan's Vision 2040 pillar of building a prosperous, productive and innovative nation, and the South Sudan Development Plan (SSDP), which calls for rapid development of interstate and regional roads as part of its economic development endeavors. For South Sudan, the corridor offers a unique opportunity to promote non-oil based export oriented growth.

25. The World Bank 2010, Kenya Country Partnership Strategy (CPS) for the period FY2010-13, supports the creation of a stronger infrastructure asset base to achieve Kenya's comprehensive development strategy enshrined in Vision 2030 that is to transform Kenya into a

⁸ Africa's Future and the World Bank's Support to It, March 2011

middle income country by 2030, and foresees significant new transport sector infrastructure investments. The proposed project directly supports the CPS's stated objective of supporting regional integration through investments in regionally focused transport projects, whilst supporting Kenya's vision, which aims to accelerate sustainable growth, reduce inequality, and manage resource scarcity, based on *inter alia*: enhanced equity and more wealth creation opportunities for all citizens; and infrastructural development, as it helps enhancing growth in the relatively less developed north-western part of Kenya.

II. PROJECT DEVELOPMENT OBJECTIVES

A. The Project Development Objective (PDO)

26. The proposed Project Development Objective (PDO) of the South Sudan - Eastern Africa Regional Transport, Trade and Development Facilitation Project is to enhance regional connectivity and integration of the Recipient with its Eastern Africa neighboring countries, and its access to sea ports.

27. This will be achieved through increasing transport efficiency along the Juba - Nadapal - Eldoret corridor connecting South Sudan to Mombasa port, facilitating trade and development, connecting Juba with fiber optics, and linking the new landlocked country, South Sudan, to an alternative sea port of Djibouti in a later phase. The proposed program helps the eastern part of South Sudan and the north western part of Kenya to boost export oriented agricultural development by facilitating increased agricultural production along the Juba - Eldoret corridor, endowed with abundant natural resources, through improved transport, trade facilitation, ICT access, as well as the development of export processing zones. The proposed program contributes to the overarching goal of facilitating and lowering the cost of intra-regional trade to support regional cooperation and integration of economies in the sub-region. The program helps South Sudan compete in the regional and global market. The program will also contribute to the reduction of transport cost that will help lower the cost of economic development, service delivery to the poor, and doing business in the program influence area.

28. The program will be implemented in a series of three projects (SOP). The first phase of the program (Phase 1) is defined herein after as the "first project". The first project focuses on enhancing connectivity to Mombasa Port, improving customs, and promoting trade and development facilitation along the Juba-Nadapal-Eldoret corridor.

29. The second project -Phase 2- will focus on the improvement of the road infrastructure not covered under the first project and support priority trade and development facilitation along the Juba – Nadapal - Eldoret corridor. The third project -Phase 3- will focus on enhanced support to trade facilitation measures along the priority corridors linking South Sudan to Mombasa and Djibouti ports, concentrating on interventions to be implemented within the territory of South Sudan and Kenya. The third project will also include completing the rehabilitation of the remaining sections of the road infrastructure not covered under the previous phases on the Kenyan side. All the three projects support the overarching program objective. The total program is estimated to cost about US\$1.27 billion, while the first, second and third projects are estimated to cost about US\$255 million, US\$835 million and US\$175 million, respectively. This Project Appraisal Document applies to SOP1-the first project.

30. The principal factors for focusing on the Juba - Nadapal - Eldoret corridor, include: (a) the corridor opens the massive agricultural, livestock, and mineral resources rich area in the eastern part of South Sudan, an area closer to the regional and global market, and the less developed Turkana region of Kenya; (b) the corridor crosses only one transit regime and will be the cost effective and shortest connection to Mombasa, in terms of truck turnaround time; (c) the project crosses flatter terrain, which will reduce vehicle operating cost and improve driving safety; (d) the corridor opens access to an alternative sea port - Djibouti; and (e) the corridor offers the quickest route to the offshore submarine cables off the East African coast.

B. Project Beneficiaries

31. The beneficiaries of the project will include: road users, passengers and freight, residents along the road corridor, tradable sectors of the economy, agriculture, mining and ultimately, consumers and producers both inside and outside the sub-region. With export processing facilities, the project will offer new job and income earning opportunities to the people in Eastern Equatoria and eastern part of central Equatoria states in South Sudan. A similar scenario is manifested in the north western part of Kenya traversed by the corridor. Currently a region that has not received adequate attention and exhibit very high levels of poverty. Due to the poor state of this corridor the inhabitants are occasionally cut off from the rest of Kenya and South Sudan, particularly during the rainy season. ICT users throughout South Sudan, government departments, the private sector, especially small and medium enterprises, and development partners will also benefit from the reduced costs for internet. Improvement of the corridor will also attract investment for export oriented agricultural development and mining in the project influence area.

C. PDO Level Results Indicators

32. The expected outcome for the first project includes a reduction in travel time between Juba and Mombasa, in addition, to the three IDA core indicators namely: (i) reduction in transport cost, (ii) road in good and fair condition as share of the Juba-Mombasa Corridor, and (iii) direct project beneficiaries (number of which female - percentage). Expected outcomes of the proposed overall program, as a result of the road improvement, and the trade and development facilitation initiatives, include: (a) an increase in trade volume between South Sudan and Kenya; and (b) a reduction in ICT access costs, while contributing to the achievement of the three IDA core outcome indicators as mentioned above. Progress towards the attainment of the PDO will be assessed through the indicators encapsulated in Annex 1.

III. PROJECT DESCRIPTION

A. Project Components

33. The First Project will include:

SOUTH SUDAN

34. Component 1: Support to the MTRB (US\$222 million of which IDA financing is US\$47 million). This component consists of:

Sub-component 1 (a): Upgrading of approximately 125 km of the Juba-Torit road section of the Juba-Nadapal-Eldoret Corridor. This will be financed by the China EXIM Bank and Government of the Republic of South Sudan (GRSS).

Sub-component 1 (b): (i) Construction and rehabilitation, within the Recipient's territory, of bridges between Kapoeta and Nadapal and upgrading of approximately 40 km of the Kapoeta-Narus road section of the Juba-Nadapal-Eldoret Corridor and (ii) related supervision costs.

Sub-component 1 (c): Road repairs of approximately 190 km of road sections, within the Recipient's territory, between Torit and Kapoeta, and Narus and Nadapal.

35. Component 2: Facilitation of Regional Transport, Trade and Development (US\$12 million of IDA financing). This component supports promotion of sound transport, trade and development facilitation measures, increasing the efficiency of the corridors. This includes:

Sub-component 2(a): Support to MOFCEP and SSCS in the facilitation of regional trade, transport and development through the establishment of an institutional base and legal framework, including: (i) the harmonization of customs procedures and the legal establishment of an OSBP in Nadapal; (ii) the provision of advisory services for the modernization of the Recipient's custom services; (iii) the implementation of an integrated border management system; and (iv) the provision of advisory services and equipment for the establishment of a trade information platform within MOFCEP.

Sub-component 2 (b): Support to MTRB in the facilitation of regional trade, transport and development, including: (i) the carrying-out of a trade and development facilitation study and transport review on key national corridors; (ii) the preparation of a transit transport agreement protocol and related support to the Recipient's national management corridor committee; (iii) the preparation of legal agreements and regulations for the establishment of a vehicle overloading control system; (iv) the development of a legal framework on traffic and safety, and the carrying-out of a road safety audit along part of the Juba-Nadapal-Eldoret Corridor within the Recipient's territory; (v) the implementation of a Corridor Performance Monitoring System (CPMS); and (vi) the carrying-out of studies and ESIA's for the simplification of export-import processes, the certification of products and the provision of services at rest stops.

36. Component 3: Institutional Development and Program Management (US\$6 million of IDA financing)

Sub-component 3(a): Strengthening of MTRB's institutional capacity through the provision of advisory services and training, and the preparation of a sectoral governance and anti-corruption strategy.

Sub-component 3(b): Provision of advisory services to MTRB to strengthen its safeguards management capacity.

Sub-component 3(c): Provision of advisory services, training and logistical support, including office equipment, materials and supplies, and Operating Costs as required to sustain the management and coordination of Project implementation activities, including audits, and the monitoring and evaluation of progress achieved in the execution of the Project.

37. Component 4: Connecting Juba with Fiber Optics (US\$15 million of IDA financing). Construction of a fiber optic cable, alongside the part of the road located in the Recipient's territory, from Juba to Lokichoggio in the Republic of Kenya at the Juba-Nadapal-Eldoret Corridor.

38. In parallel with the implementation of the first project in South Sudan, Kenya will implement preparatory activities for the second project and studies to be implemented in tandem with the first project under a Project preparation Advance (PPA) for Kenya.

B. Project Financing

Lending Instrument

39. The proposed lending instrument for the project is an Investment Project Financing (IPF). The IPF will allow the project to be financed through a series of projects (SOP) and there will be no trigger to initiate a successor phase, although each phase may have eligibility criteria. This will allow the Bank to provide support in a flexible manner depending on the preparedness of individual development partners to engage in the proposed project. The IPF will be structured to allow individual countries to participate in parallel.

Financing Arrangement

The First in a Series of Project

40. The proposed total project cost for the first project for South Sudan is about US\$255 million of which US\$80 million would be an International Development Agency (IDA) Credit for the Republic of South Sudan. The Bank support will focus on upgrading critical sections in South Sudan to ensure all season passability along the corridor and priority trade and development facilitation as well as connecting Juba with fiber optics. Due to the conflict in South Sudan, the project will set aside about 10 percent of the road infrastructure and fiber optic construction costs (about US\$6 million) as a provision for unforeseen cost overruns. The

situation should be monitored until the launching of the bids for the civil works and the size of the contracts will be adjusted accordingly.

41. In addition, a Project Preparation Advance in the amount of US\$6 million has been requested for the Republic of Kenya, to be refinanced under the Credit to the Republic of Kenya for the second project. The program anticipates additional national and RI resources from IDA17 for the second project.

42. China EXIM Bank has expressed interest to provide a loan to upgrade part of the Juba-Nadapal road, based on terms to be negotiated between the GRSS and China EXIM Bank. The amount is expected to reach up to US\$150 million. China EXIM Bank would cover 85 percent of the cost of the civil works while the government contributes about 15 percent upfront. Due to the current financing constraints GRSS may negotiate for a 5 percent down payment, as it has done for another infrastructure project in South Sudan. In line with this, GRSS will contribute about US\$8 million as a down payment plus the supervision cost estimated at about US\$8 million.

43. The support from China EXIM Bank would be in the form of parallel cofinancing. The timing and formal confirmation of the China EXIM Bank funding is much influenced with the overall bilateral cooperation between the GRSS and Government of China, which is under consultation. GRSS has formally requested China EXIM Bank to finance the upgrading of the Juba-Nadapal road, and the project financing was discussed as part of the bilateral cooperation consultations between GRSS and China EXIM Bank in December 2013, before the outbreak of the conflict. China EXIM Bank has confirmed to the World Bank that it will continue preparing the project while monitoring the security situation. The financing agreement provides for a deadline for the effectiveness of the co-financing agreement to be signed between China EXIM Bank and GRSS to become available.

44. Government contribution: During the donor's consultative meeting of January 29, 2013, GRSS has committed about US\$25 million for the upgrading works and land acquisition, while the GoK has indicated that it will contribute about 10 percent of the road upgrading.

45. Trade Mark East Africa (TMEA) is supporting trade facilitation initiatives in eastern African countries and South Sudan. TMEA has launched a program, which includes support to the modernization of South Sudan Customs as a parallel project, which will be implemented in collaboration with SS-EARTTDP.

46. For FY 14, for the purpose of IDA resource allocation, South Sudan is classified as a "yellow light". The country is eligible for IDA grants and subject to IDA's Non-concessional Borrowing Policy (NCBP). The Bank will assess the concessionality of China EXIM Bank's expected financing in light of the project's economic returns and address this issue in line with NCBP provision.

Project Cost and Financing (First series of Project)

Table 2: Project Cost by Main Component and Source of Financing (US\$ million)

Project Components	IDA	GRSS	China EXIM bank	Total
1. Support to MTRB ⁹	47	25	150	222
2. Transport, Trade and Development Facilitation	12			12
3. Institutional development and program management support	6			6
4. Connecting Juba with fiber optics	15			15
Total Project Costs				
Interest During Implementation				
Total Financing Required	80	25	150	255

C. Series of Project Objectives and Phases

47. The second and third series of projects would support the overarching program objective and will have the following components:

The Second in a Series of Project:

48. **Support to MTRB and KeNHA for upgrading of road infrastructure (Investment requirement to be determined depending on the resources to be leveraged for the first phase-up to US\$780 million).** This includes:

- (a) *Upgrading of the Juba-Nadapal corridor in South Sudan* - Upgrading of the remaining section between Torit and Nadapal road from the first phase. The African Development Bank (AfDB) is expected to support the upgrading of Torit - Lobira (about 70 km - US\$100 million), while the European Investment Bank (EIB) may provide support to the upgrading of part of the Kapoeta-Nadapal section;
- (b) *Asset management contract* to maintain the sections upgraded under design and build arrangement in South Sudan; and
- (c) *Support to KeNHA for the Upgrading of the Nadapal-Eldoret corridor in Kenya* - Support to the upgrading of approximately 300 km of the Nadapal-Marich Pass section of the Juba-Nadapal-Eldoret corridor through design and build arrangement (US\$330 million). The Nadapal-Eldoret road which will not be under upgrading contract will be maintained by KeNHA to ensure all season passability. The section between Marich Pass and Eldoret estimated at US\$200 million is expected to be financed by Japan International Cooperation Agency (JICA). Both the European Union (EU) and AfDB have also expressed interest and could provide support to

⁹ Physical contingencies of 10 percent and price contingencies of 10 percent are included in the estimated capital costs. All contracts will be in US dollars.

part of the road between Lodwar and Marich Pass that will not be financed by the World Bank.

49. **Support to MoFCEP/SSCS, MTRB-SS, KRA, KeNHA and MoTI for Facilitation of Regional Transport, Trade and Development (US\$50 million).** Support to the implementation of the recommendations of transport, trade and development facilitation studies to be conducted under the first project along the Juba- Nadapal - Eldoret corridor, and building on the interventions initiated in the first project, including: (a) Corridor performance monitoring; (b) Support to national corridor management committees; (c) Strengthening the South Sudan Customs Services; (d) Establishing OSBP at South Sudan and Kenya side of Nadapal, through a design-build (DB) arrangement; (e) Enhancing social infrastructure and social services delivery, including Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome (HIV/AIDS) prevention, and Road Safety along the corridor; (f) Establishing overloading control weigh bridge at Nadapal on South Sudan side; (g) Support to provision of site and services to rest stops, export processing zones and storage facilities, as well as certification of export products and simplifying the process for import-export; and (h) connecting export processing zones, rest stops and community centers and service centers along the corridor with ICT.

50. **Support to MTRB, SSCS, KeNHA, KRA and MoTI for Program Implementation and preparation of follow-on operations (US\$10 million),** including institutional development support to the program implementation entities, as well as other institutions involved in trade and development facilitation and private sector stakeholders, such as freight forwarders and transporters association; and studies and design to provide access along Lobira-Kitgum and Gulu (Uganda).

The Third in a Series of Project

51. Primarily it would focus on enhanced support to trade facilitation measures along the priority corridors linking South Sudan to Mombasa and Djibouti ports. This support will concentrate on activities within South Sudan and Kenya. The third project will also finance the rehabilitation of the remaining sections of the Nadapal - Eldoret road not financed under the first and second projects. The activities under this project are estimated to cost about US\$175 million.

52. The Provisional Scale of the overall Program is estimated at about US\$1.3 billion.

Other Financiers

53. AfDB is considering providing up to US\$100 million to support the upgrading of part of the Juba - Kapoeta road. The commitment of this fund is expected to be confirmed by the end of calendar year 2014, and this would finance part of the second project. The support from JICA and EIB is expected to be realized during the second project. The timing for the engagement of other development partners, which will be potential contributors to the trade and development facilitation, including the EU is not yet known and will be further discussed during the preparation of the second project.

Program Eligibility Criteria

54. There will be no trigger to initiate a successor project. The program has to be implemented in series based on the amount available for each phase of the three projects. There will be no new country joining the implementation in the subsequent phases (second and third project) except the primary beneficiaries, South Sudan and Kenya.

55. However, all projects would have to meet the standard Bank requirements (including safeguards) and will have to fit into existing country programs (net of the regional IDA allocation).

D. Lessons Learned and Reflected in the Project Design

56. The program design has taken into consideration the recommendations provided by the World Bank Independent Evaluation Group (IEG) on its review of various regional programs around the Bank¹⁰, in particular the need to: (a) have a strong country commitment to regional cooperation; (b) match the scope of objectives with national and regional capacities; (c) have clear delineation and close co-ordination between the regional and national stakeholder institutions; (d) have in place accountable and well-designed governance and management arrangements; and (e) ensure sustainability after external support ends.

57. The program and the first project have been designed to reflect the lessons gained from the East African Trade and Transport Facilitation Project (EATTFP) in regards to risks in investment versus return in relation to implementation of soft measures and the time it takes, and other regional investment projects in transport in Kenya and South Sudan. Accordingly, the proposed program has been designed to ensure the following: (a) the use of a phased approach within a consistent program framework; (b) the simplification of project objectives, implementation arrangements, design and components; (c) early preparation of engineering, social, environmental, and institutional aspects to ensure quality at entry; (d) agreeing on an implementation strategy for implementation of soft measures ahead of time (e) extensive consultation with key stakeholders to ensure increased ownership; (f) improved cross sectoral and donor coordination to support program objectives and sustainability; (g) provision of support to establish a bilateral mechanism, tasked with a monitoring role and sustaining program outcomes, including the establishment of a joint coordination and corridor management group; (h) adoption of DB approach to reduce risk of cost overrun due to faulty design and reduce the time required for two stage (separate design preparation and construction) project implementation process; and (i) introduction Output and Performance Based Road Contracting (OPRC) arrangements to support sustainability of investments.

E. Alternatives Considered and Reasons for Rejection

58. The idea of preparing a multi-country investment operation in the form of a single Investment Project Financing (IPF) was considered and rejected. Implementation of all

¹⁰ The World Bank Group (2007a) *The Development Potential of Regional Programs. An Evaluation of World Bank Support of Multi-country Operations*. A report by the Independent Evaluation Group.

infrastructure improvement and trade facilitation measures on all the corridors in one operation was precluded as the project would be far too complex. Resource limitations also do not allow the implementation of all anticipated activities under one operation. Therefore, developing the remaining parts of the EAC corridor No. 3 and the Djibouti corridor stage by stage was considered. This will also avoid duplication of efforts.

IV. IMPLEMENTATION

A. Institutional and Implementation Arrangements

Partnership arrangements

59. The countries in the sub-region, South Sudan, Kenya, Uganda, and Ethiopia are keen to enhance economic cooperation and trade among themselves. This interest is manifested by the effort of all neighboring countries to improve the road links connecting them to South Sudan.

60. The potential development partners that would support the infrastructure upgrading, and trade and development facilitation along the Juba - Eldoret corridor, include: the AfDB, China EXIM Bank, EU, EIB, JICA, TMEA, and the World Bank. The United States Agency for International Development (USAID), which has a very active program in the region, could potentially be interested in promoting trade and development facilitation. The program will forge partnership with the development of the Kampala-Juba-Addis Ababa corridor, supported by the AfDB, as the corridor shares a major part of the Juba - Nadapal road. To facilitate donor coordination, the governments of South Sudan and Kenya have successfully held a donors' consultative meeting on January 29 and 30, 2013.

Coordination

61. The program will involve South Sudan and Kenya, and the implementation will be coordinated by the Joint Inter-Ministerial Committee (JIMC), representing MTRB of South Sudan and the MoTI of Kenya. The two ministries will strengthen the JIMC by including key institutions involved in transit transport management. The JIMC will engage with Inter-Governmental Agency for Development (IGAD), EAC and Northern Corridor Transit Transport Coordination Authority (NCTTCA) on trade facilitation matters and inter-country coordination. The JIMC will have an oversight responsibility and will be responsible for overall regional coordination.

62. The two countries will establish national level Program Oversight Committees (POCs) comprising core institutions involved in corridor management, and chaired by Principal Secretary of MOTI and Undersecretary of MTRB, respectively. The POCs will be the technical arm of the JIMC.

63. The two countries will also establish a National Corridor Management Committees (NCMCs). The NCMC will not have a direct implementation role however will act to facilitate inter-agency coordination and communication, as well as enhance the engagement of the private sector and civil society in corridor management. The NCMCs include Bureau of Standards, Police, Immigration, Ministry of Agriculture, and Ministries responsible for commerce and

industry, etc. Transit regime issues will be looked after by NCTTCA as both South Sudan and Kenya are members of the Authority, while the NCMCs will facilitate implementation of NCTTA's initiative at national level.

Project Implementation

64. The program will be implemented by MTRB and SSCS in South Sudan, and by KeNHA, KRA, and MoTI in Kenya. The implementing entities will establish Program Management Teams (PMTs) assigning staff from within. SSCS will establish a Project Implementation Unit (PIU) with intensive TA input. The implementing entities will also designate program coordinators who will be leading the PMTs and serve as focal persons. KeNHA and KRA each will sign a Project Agreement with the Bank. The JIMC through the POC will oversee implementation. The PPA for Kenya will be implemented by KeNHA and KRA.

65. The PMT under the MTRB will lead the implementation in South Sudan. The PMT is familiar with Bank procurement and implementation procedures. The capacity of the PMT will be strengthened and TA will be provided under the project. The SSRA has already been established and the functions of the PMT under MTRB will be transferred to the Authority when it becomes fully operational. The transfer will be subject to the Bank's fiduciary assessment and approval.

66. MTRB will be responsible for the financial management and procurement of the ICT component on behalf of the Ministry of Telecommunication and Postal Services (MoTPS). MoTPS who will be responsible for the technical aspects of the fiber optic construction will establish a Project Implementation Unit. An MOU will be signed between MTRB and MoTPS, to spell out roles and responsibilities and detailed implementation modalities with respect to the fiber optic installation before effectiveness. An MOU will also be signed between Kenya Information and Communications Technology Agency (KICTA) and MoTPS on the extension of the fiber optic and its operation, before disbursement is permitted. In Kenya, the KICTA will be the primary partner for the ICT component to be implemented to connect Juba with fiber optics, seeking to ensure open access and interconnection with networks that serve and transit through Kenya. The KICTA has considerable experience in implementing World Bank program, notably the first phase of the Regional Communications Infrastructure Program (RCIP-1).

67. As for the custom and trade facilitation component, the SSCS will have the overall responsibility to implement the trade facilitation component. The SSCS will implement the trade information platform/portal establishment and accession to the World Trade Organization (WTO) in collaboration with the Commerce Department of MoFCEP. SSCS has its own procurement and finance units though it has limited experience in managing large contracts and projects supported by development partners. Therefore, a Project Implementation Unit (PIU) has been established under SSCS. The program will provide TA to strengthen the SSCS. The Customs Services is anticipated to be re-established as part of a new Revenue Authority for South Sudan, which will be an autonomous entity. The project will review the capacity of this new entity and consider transferring to it the responsibility of implementation when its capacity is adequate.

68. MoTI will be responsible for the overall coordination and implementation of the program in Kenya. KeNHA will focus on road corridor upgrading. MoTI will also be responsible for the implementation of the development facilitation measures. MoTI and KeNHA have experience in managing Bank supported projects and further TA to strengthening project implementation capacity will be provided under the project. KRA will have the overall responsibility of implementing the trade facilitation measures on the Kenyan side. KRA has been implementing trade facilitation measures related activities under the EATTFP supported by the World Bank, and it is familiar with the Bank's procurement and financial management guidelines and procedures. The program will provide TA to strengthen the capacity of KRA.

69. MoTI and MTRB through the JIMC are proposed to oversee the implementation of the project. The JIMC will engage all participating countries, including Djibouti and the sub regional communities (IGAD and EAC) during the trade facilitation study by organizing consultative workshops.

70. *Timeline.* The first project is planned to be implemented over a period of five years. The second project will require an implementation of eight years, consisting of three years for the upgrading works and five years of maintenance under an OPRC arrangement for major road contracts, while the design-build contracts will have three years term and be followed by five years road asset management contracts for maintenance using the OPRC arrangement. The fiber optics will be implemented starting the first year of the first project. The third project will be implemented over a period of seven years. Details of the timeframe are presented in Annex 3. As the program will focus on South Sudan and Kenya the second and third projects will concentrate on activities within these two countries, and thus, the same institutions implementing the first project will continue to be responsible for the execution of the tasks under the follow-on projects.

71. A Program Implementation Manual (PIM), providing guidance on program coordination, implementation of components, as well as fiduciary and safeguards responsibilities has been prepared.

B. Results Monitoring and Evaluation

72. The program has designed and includes a set of monitoring indicators that are intended to work at both the national and corridor levels, in line with the Results Framework. The indicators would be replicated in subsequent phases to allow the effective measurement of the outcome and results of the project(s) and aggregated to provide results for the program. These indicators together with the monitoring and evaluation arrangements are detailed in Annex 1. The indicators will be collected, monitored, reported and disseminated by MoTI and MTRB after endorsement by the JIMC/POCs. Data will be disaggregated by gender. The project will also monitor the impact of the project in reducing poverty and improving the livelihood.

73. The overall responsibility for monitoring and evaluation of outcomes of the program will formally lie with MTRB and MoTI. The two institutions will prepare half yearly progress reports that will detail progress of the components the project monitoring indicators as per the project's results framework (see Annex 1).

74. The project will carry out an early Mid-Term Review, about two years into implementation, as stipulated in the Financing Agreement.

C. Sustainability

75. The program is expected to address sustainability issues related to the infrastructure investments and facilitation measures, through enhanced ownership and by establishing trade facilitation groups. The road upgrading will be implemented through an OPRC arrangement to ensure that maintenance of the investment is guaranteed for the initial five years. The sections that will be implemented under design-build (DB) arrangement will be followed up with a road asset management contract. The two governments are providing counterpart funds that would partly be applied to the OPRC contracts, sufficient to cover the maintenance components. The program will urge the two governments to put in place an appropriate asset management system that will facilitate the undertaking of maintenance along the corridor through a long term output and performance based maintenance contracts of five years duration. The road maintenance fund in Kenya will also help to secure funds for maintenance. South Sudan is also expected to establish a mechanism to ensure a stable flow of funding to maintenance. The social infrastructure will be mainstreamed within the domestic institutional framework, but will evolve towards offering fee-based services.

D. Risk Ratings Summary Table

Table 3: Risks and Mitigation Measures
Risk Rating: H (High Risk); S (Substantial); M (Moderate Risk); L (Low Risk)

	Rating
Project Stakeholder Risks	S
Implementing Agency Risk	
- Capacity	H
- Governance	H
Project Risks	
- Design	H
- Social and Environmental	S
- Program and Donor	S
- Delivery Monitoring and Sustainability	H
- Other (Optional)	H
Overall Implementation Risk	H

E. Overall Risk Rating Explanation

76. The overall risk of the program is high as part of the program will be implemented by a country affected by conflict and implementation also requires the engagement of two countries (South Sudan and Kenya) and multiple agencies. The program also requires that significant financial resources be contributed by multiple development partners. There are risks of capacity constraints, in particular in South Sudan; spot land mines and insecurity; the absence of a competitive construction market; and sustainability of the facilitation measures are considered to be high. The program has to be prepared in the absence of adequate information. The project risk at implementation is considered to be high. The risks are discussed in the Operational Risk Assessment Framework (ORAF-Annex 4).

Governance Issues

77. The program has been designed to improve governance in the implementing entities by strengthening the procurement and financial management systems and procedures used, together with additional specific actions to ensure good governance in the Program. In addition, the Borrowers will be required to implement the project in accordance with the World Bank Anti-Corruption Guidelines.¹¹ These will be supported by improved financial management and other controls in project implementation, as summarized below:

- (a) Enhancing governance in the transport sector of South Sudan through: (i) strengthening fiduciary capacity of MTRB; and (ii) preparation of sectoral governance and anti-corruption strategy;
- (b) Hiring international consultants to support MTRB, MoTI, KeNHA, SCS and KRA, as necessary, in the administration and implementation of the project, and the application of transparent procedures for administering the designated account and producing more efficient, equitable and needs-based expenditure programs;
- (c) Hiring reputable international consultants to undertake random technical audits of completed works to ensure quality and sustainability of investments;
- (d) Procurement controls to ensure the reliability of cost estimates, detect over-pricing through bid analysis, close supervision control in respect of contract variations and dissemination of the complaints handling mechanism in bidding documents;
- (e) Enhanced supervision by the Bank through field-based fiduciary, safeguards and technical staff, with frequent missions by staff from headquarters; and
- (f) Adopting a sound Grievance Redressing Mechanism (GRM). The GRM would also help in addressing complaints related to resettlement. Details on GRM are presented in Annex 3.

78. In Kenya, to enhance integrity and governance, and mitigate the associated risks, the Bank and the Government of Kenya (GoK), with the guidance of the Integrity Vice Presidency (INT), agreed on a Roads Sector Governance and Integrity Improvement Action Plan (GAP), which is being implemented under Northern Corridor Transport Improvement Project (NCTIP), and where appropriate, has been adopted for the ongoing Kenya Transport Sector Support Project (KTSSP) and National Urban Transport Improvement Project (NUTIP) financed by the Bank. Similarly, the Kenyan part of the SSEATTDFP, where appropriate, will adopt relevant aspects of the GAP: in particular, unit costs will be rigorously investigated and estimated; stringent due diligence will be done of bidders, consultants and suppliers; bids and qualifications will be subjected to much higher levels of scrutiny; use of post-qualification of bidders for large works contracts will be continued; and the “Engineer” will be independent works supervision consultants.

¹¹ “Anti-Corruption Guidelines” means the “*Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants*”, dated October 15, 2006, revised in January 2011.”

V. APPRAISAL SUMMARY

A. Economic Analysis

79. The economic analysis for the upgrading of the Juba - Eldoret road was carried out in four sections. The analysis for South Sudan part covered the Juba - Nadapal section, while the Kenya part was sub-divided into three sections: (a) Nadapal - Lodwar; (b) Nadapal - Marich Pass; and (c) Marich Pass - Eldoret/Lasseru.

80. The traffic level and results of the economic analysis¹² for the different sections of the corridor are summarized in Table 4. The results for the four sections have shown an Economic Internal Rate of Return (EIRR) ranging from 14.6 percent to 41.3 percent, and Net Present Value (NPV) ranging from US\$23 million to US\$410 million, using a 12 percent discount rate, demonstrating that the upgrading of the corridor is economically viable. The results suggest that the economic viability of the project is robust, with the defined changes in the key parameters having little impact on overall viability.

Table 4: Summary of Program Corridor Economic Analysis

Road Section	Length (km)	Traffic flow			Economic analysis		
		AADT	Generated	Diverted	EIRR (%)	NPV (US\$m)	Sensitivity analysis EIRR(%)
Juba-Nadapal	363	(71-135) ¹³	127-135	70	21.1	353.90	19.5 ¹⁴
Nadapal-Lokichoggio	240	357 (520) ¹⁵	36	115	14.6	23.45	11.9
Lokichoggio-Lodwar		368 (644)	36	113			
Lodwar-Marich Pass	197	154-262 (1537) ¹⁶	Annex 6	±124	33.2-41.3	410.35	26.7
Marich Pass-Eldoret	158	193 to+10,000	Annex 6	17	31.4	321.30	21.1

81. *Sensitivity Analysis.* As shown in the economic analysis summary table (table 5) the sensitivity analysis results for the three sections: Juba - Nadapal (19.5 percent), Lodwar - Marich Pass 26.7 percent), and March Pass - Eldoret (21.1 percent) are robust while the EIRR for the Nadapal - Lodwar section is near the discount rate of 12 percent. The latter section is sensitive to changes in construction cost, which should be monitored during implementation and adoption of appropriate standard for the upgrading works. The EIRR of the Juba - Nadapal section relies on the traffic to be generated from the economic output expected to be facilitated by the project interventions in the long term.

82. The Bank has also reviewed the economic analysis and confirmed that the Juba - Nadapal road improvement is economically justifiable. With the project alternative the HDM-4 analysis shows an EIRR of 18.6 percent for upgrading to Double Bituminous Surface Treatment

¹² Details on the economic analysis are presented in Annex 6.

¹³ The figures show the range of traffic flow over the Nesitu (start of the project- junction to Torit and Nimule) to Torit section. The AADT along the Juba-Nesitu section is 723 while the estimate of the generated traffic is 1038.

¹⁴ EIRR is only > 12% + NPV positive if short-term labor + regional (economic output) benefits are included

¹⁵ The traffic figures in italics include motorcycles.

¹⁶ The traffic figures show the range of traffic flows between Lodwar and Marich Pass. The figure in italics shows the traffic flow in the urban area of Lodwar.

(DBST) and 17.9 percent for Asphalt Concrete (AC), base case scenario. The results of the sensitivity analysis show that the proposed road is still viable for 20 percent increase in cost and 20 percent decrease in benefit with EIRR of 13.4 percent and 13.2 percent for DBST and AC options, respectively. The review of the three sections on the Kenyan side will be carried out as the final engineering designs will be completed before the end of 2013.

83. *Supporting trade and development.* The upgrading of this corridor helps to generate and promote trade and development in the sub-region. Increased accessibility will contribute to creating and enlarging markets, particularly that of regional agricultural trade, but also third country origin products transported along the corridor. The gains of accessibility are obtained by the upgrading of the road infrastructure, which must be supplemented by reduction of transport and trade transaction costs. One day delay road transportation cost each truck US\$140 per day in fixed cost and driver's time¹⁷ and this is further augmented by additional cost of 0.5 percent of goods value per day to the traders, which constitutes lost opportunity cost and financial cost. The program's sound transport, trade and development facilitation measures will reduce the border dwell time significantly, thus contributing to the reduction in the turnaround time between Juba and Mombasa from 8 days to 5 days. The economic effect of the program will be further increased by: increased competitiveness in road transportation sector (bilateral transit agreement); accessibility to efficient financial and social infrastructure (banking and insurance services); gains from the prevention of HIV/AIDS; economic return from export processing zones and storage facilities; gains from prevention of causality and congestion caused by traffic accident; and prevention of road damage caused by overloading.

84. Laying fiber optic cable alongside the road from Juba into Kenya will link South Sudan with the global internet and should lead to a substantial reduction in the price of internet service. Currently, the retail price of mobile data in South Sudan is over US\$450 per Gigabyte, which makes most internet applications prohibitively expensive for mobile users. One reason the price is so high is because the mobile operators are reliant on satellite bandwidth. Providing wholesale internet connectivity through a fiber cable should reduce the retail price by more than half within three years of the service becoming operational.

85. *Project Impact.* The improved access, trade facilitation and export processing facilitation will provide greater opportunity to local farmers and pastoralists to have better access to the domestic and regional agricultural markets. The farmers and pastoralists would have the opportunity to be out growers for the processing plants and businesses, hence these opportunities will help local products to be sold at market prices and increase household income, contributing to shared growth. The small business that would develop along the corridor, border post, rest stops, and processing areas will create employment opportunity to the youth and the rural poor. The construction and maintenance works will also provide income generating jobs to the local people. Therefore the project will play catalytic role in increasing production, generating employment and income, which will help to reduce poverty and improve livelihood. The feasibility study for the Juba - Nadapal and Nadapal - Lodwar sections have demonstrated the value added of the project, by estimating the economic output that would be facilitated due to the improved access and movement of trade.

¹⁷ Juma Mwapachu, the secretary general of the East African Community in "Doing Business" (2011).

86. *Rationale for public involvement.* Given the current post conflict environment in South Sudan it is difficult to attract private investment for such projects. Due to the current low level of development, poor road condition, and spot insecurity in the project area traffic volume is low and toll road option is not applicable at this stage. This is a development project, which is considered as a public domain. Although, it is difficult to develop a Public and Private Partnership (PPP) in the transport sector in post conflict South Sudan at this moment, as part of the vision for the sector, the Bank is undertaking an Economic and Sector Work to help outline strategies for the development of the roads network, including strategies for PPP opportunities.

87. *Benefit from the World Bank's contribution.* The Bank is helping the two governments to adopt robust trade and development facilitation measures, as well as alternative contracting arrangements, such as Design Build (DB) approach, based on its international experience in supporting regional transport and trade facilitation projects. As a new nation and after years of isolation due to conflict, the institutional base of the transport sector is weak and local expertise in South Sudan is scarce and not sufficiently developed. The World Bank Group, as a global institution, with years of experience in providing support to countries who have experienced conflict, is in a unique position to design a long-term engagement in the sector that takes into account the challenges that countries such as South Sudan face. The program is based on a series of strategic and incremental interventions based on country circumstances, and anchored in international best practice. These include immediate actions in developing governance and integrity strategies for the transport sector for South Sudan, and adopting international standards and practices for procurement, financial management, and environment and social safeguards. Furthermore, the Bank has the convening power to bring development partners together to support the program.

B. Technical

88. The proposals for the road upgrading constitute mainly a two lane single carriageway with a width of 7 meters and shoulders of 2 meters wide throughout the corridor, except the section from A1/B2 Junction to A/1/C45 Junction in Kenya, which is a dual carriageway. The road conditions vary considerably along the corridor from fair to poor, and in some sections the road has degraded to gravel or an earth road. The proposed pavement options vary depending on the traffic level, as well as, natural soil and climatic conditions.

89. *Alternatives.* A comparative assessment of the benefits and cost implications of upgrading the road to AC or DBST standard was conducted and the variation in economic viability results was found to be marginal. For example, the EIRR for the Juba - Nadapal section for AC and DBST are 21.1 and 21.2, respectively. The option of upgrading the road to gravel standard and sustaining it with continuous maintenance through OPRC appears to be expensive over the road life cycle (details provided in Annex 6). However, to ensure all season access the construction of bridges and upgrading the road in stages, starting with gravel sub-base, in areas where the intensity of rain is low, lateritic material is in abundance and the traffic volume is lower has been considered. The option of DB is also considered where the contract length is short and a contract constitutes construction of bridges only. The second project will consider upgrading and maintaining longer sections under OPRC arrangement.

C. Financial Management

90. The Financial Management (FM) capacity of MTRB and SSCS is at its infancy and TA will be provided under the project. MoTI, KeNHA and KRA have experience in managing Bank projects. Overall the three implementing entities in Kenya have adequate Financial Management Systems for the purpose of the project, while the system for the implementing entities in South Sudan needs strengthening. FM risks are rated as substantial for South Sudan and moderate for the entities in Kenya, and proposed to be mitigated through provision of TA. In addition, financial and technical audits will be conducted.

91. Each implementing entity will prepare and submit to the Bank Interim Financial Reports (IFRs) within 45 days after the end of the calendar year quarters. In addition, audited financial statements will be prepared and submitted to the Bank within six months after the year-end by each of the implementing entities. The details of the FM assessments and action plan are summarized in Annex 3.

D. Procurement

92. The Bank team has made an assessment of the five implementing agencies responsible for the implementation of the project namely MTRB, SSCS, MoTI, KeNHA and KRA. MTRB has acquired some experience in procurement, and the proposed project is also expected to further enhance transparency and MTRB's procurement capacity. However, SSCS is new for managing Bank supported projects. SSCS and MTRB will each engage a Procurement Consultant before effectiveness. The unit will also be assisted and guided by the MTRB-PMT, which will have the overall responsibility of fiduciary compliance of the components administered by South Sudan. MoTI, KeNHA and KRA have the experience of managing procurement of Bank financed projects. The overall project risk for procurement is "Moderate" for Kenya and "High" for South Sudan. The project has adequate provision for TA.

93. All Procurement for Bank financed components will be carried out in accordance with the World Bank *Guidelines: Procurement of Goods, Works, and Non Consulting Services under IBRD Loans and IDA Credits & Grants by World Bank Borrowers*, dated January 2011; *Guidelines: Selection and Employment of Consultants under IBRD Loans and IDA Credits and Grants by World Bank Borrowers*, dated January 2011; *Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants*, dated October 15, 2006 and revised in January 2011, and provisions stipulated in the Financing Agreement.

E. Social (including Safeguards)

94. The project triggers the Involuntary Resettlement (OP/BP 4.12). The road upgrading project in both South Sudan and Kenya will follow the existing route and the civil works will be carried out within the existing right of way and the project will not have adverse and irreversible impact. As the Kenya portion of the road will be prepared for the second project, a Resettlement Policy Framework has been prepared, consulted upon, and disclosed in-country and at the InfoShop on November 26, 2013. For South Sudan, the Resettlement Action Plan (RAP) has

been prepared, consulted upon, and disclosed in-country and at the InfoShop on November 11, 2013.

95. In South Sudan the project involves road widening within the existing right-of-way (RoW). Over the entire Juba - Nadapal road, 218 household structures (consisting of 171 permanent and temporary residential houses; 5 animal sheds; and 42 cooking sheds) and 145 permanent and temporary household road side business structures located with the road RoW will be affected. The relocation of the houses will be within the respective community (moving back the properties within the existing open land within the community where the Project Affected People (PAPs) currently live). The GRSS will compensate the PAPs for the lost property. In addition, 28 trees will be replaced. Segments of farmlands totaling 375 hectares claimed by 517 individuals will be acquired by the project. During the consultations with the communities, the local administration communities have agreed to provide replacement land for free. In Kenya, the number of PAPs and the cost involved to implement the RAP for the Nadapal-Eldoret road will be confirmed when the engineering design will be completed. All costs associated with compensation and any other expropriation will be borne by the two Governments and will be paid before the commencement of the works.

96. The project also triggers OP 4.10 in Kenya and South Sudan. In both cases, the vast majority of people in the project meet the criteria for OP 4.10; therefore, Indigenous Peoples Plans do not need to be prepared, but Social Assessments are needed, consulted upon and disclosed. The findings of the Social Assessment, including the process used in fostering free, prior, and informed consultations leading to broad community support of the project; a grievance redress mechanism; addressing adverse impacts and/or providing benefit-sharing; establishing monitoring, evaluation, and reporting during implementation relating to the communities, have all been included in the project as social risk mitigation measures and benefits. The draft Social Assessment Report for Juba-Nadapal road has been prepared, consulted upon, and disclosed in-country and at the InfoShop on November 25, 2013. The ToRs for Social Assessment for Kenya have been disclosed in-country and at the InfoShop on November 26, 2013.

97. **Gender Issues.** The program will benefit women and men, children and the elderly by improving access to markets, and social infrastructure and services. Particular attention will be given to markets at the border, rest stops, and export facilitating zones by providing safe and enhanced access to the market places, which will benefit more the rural women who represent the majority engaged in informal cross-border trade.

98. **HIV/AIDS Prevention.** An HIV/AIDS assessment along the road corridor will be carried out as part of the social infrastructure and services needs assessment, during phase 1 of the program and mitigation measures would be implemented in phase2. In addition, the civil work contracts will have provision for awareness campaigns for the workers, the community and drivers aiming to address HIV/AIDS risks during construction period.

F. Environment (including Safeguards)

99. The project triggers OP/BP 4.01 (Environmental Assessment), Natural Habitats (OP/BP 4.04) and Physical and Cultural Resources (OP/BP 4.11). For South Sudan, an ESIA has been prepared, consulted upon, and disclosed at the InfoShop on November 11, 2013; the ESMF for

Kenya has been prepared, consulted upon, and disclosed in-country and at the InfoShop on November 26, 2013. Given the scale and nature of the proposed project, the anticipated environmental impacts are reversible and no significant adverse environmental impacts are expected, as the proposed project activities involve road upgrading, minor widening and raising the level of the road within the existing right-of-way. Therefore, the environmental assessment category (EA) for this project is assigned to be category B.

100. A Bank safeguards team has visited the proposed road corridor in July 2013. In the South Sudan territory no significant irreversible negative environmental impact will be caused due to the road upgrading. There are no significant wildlife habitats reported to exist in the proposed road corridor and no endangered animal species have also been identified that will be affected by construction activities. The South Sudan Ministry of Tourism and Wildlife Conservation (SS-MoTWC) has also confirmed that the proposed road does not traverse through any one of the conservation area in South Sudan. However, there is wildlife crossing corridors particularly around Kidepo Valley (from Kenya, Ethiopia and Uganda to Nimule National Park, Kidepo reserve area). To minimize and/or avoid the possible impact on this in the future MTRB in consultation with SS-MoTWC would introduce risk mitigation measures to be implemented during and after construction works. OP 4.11 (Physical and Cultural Resources) has also been triggered, given the possibility that there may be known or unknown cultural assets and/or sites in the project area; the ESIA includes measures for handling cultural assets.

101. Under component 4, the proposed program will support the construction of a fiber optic cable alongside the road from Juba into Kenya to bring enhanced international internet connectivity into South Sudan for the first time. Given the installation of the proposed Fiber optic cable is within the right of way of the proposed road upgrading work, the anticipated environmental impacts would be encapsulated in the proposed upgrading works. Therefore, any impacts generated from the installation of Fiber optics cable activities would be addressed through implementation of the recommended mitigation measures indicated under Juba-Nadapal ESIA and Environmental and Social Management Plan (ESMP) reports.

102. The ESIA for South Sudan has indicated that some unexploded landmines on either side of the existing road may exist. Demining of the area has been conducted, and the project will require the Government to be responsible for any demining, if needed. The Government will also provide a map showing demined areas by UN mines action, to be used in case the project will involve resettlement in new locations. The ESIA will be shared with all co-financiers and contractors and this will help to make all stakeholders aware of the landmines issue. The road upgrading is not expected to cause major negative impact, except being high risk, due to the landmines challenge.

103. On the Kenyan territory around West Pokot, between Lokichar and Kapenguria there is a South Turkana National Reserve area crossed by the proposed road and animal passing corridors were observed, which may require provision of animal under pass and fencing along section of the road frequently crossed by animals to direct them to the under pass. A realignment section of about 12 km that would have impact on Kamatira forest area was proposed, but KeNHA has reconsidered to follow the existing alignment and improve the gradient and curves. Kitale town crossing is proposed to be improved in such a way that will not affect settlement by following the existing route. The Segment between Marich Pass and Kitale will be upgraded in

the second phase by JICA and safeguard issues along this segment will be reconsidered by JICA and KeNHA. The road upgrading will follow the existing alignment and with the adoption of the environment friendly approaches and implementation of the mitigation measures no adverse negative impact is expected.

104. **Main Safeguards related risks.** The potential adverse environmental and social impacts related to the civil works in South Sudan will include dust and noise due to the road construction operations, as well as: (a) soil erosion and pollution, as a result of establishment of base camps, borrow pits and quarries; (b) dumping of construction material and spillage of machine oil, lubricants, etc.; (c) loss of properties; and (d) traffic, health and safety issues during construction.

105. Potential positive indirect impacts include increased employment and income for skilled and unskilled workers and indirect employment opportunities from provision of services to construction workers such as sale of food and beverages. Also, the reduction of travel time reduces the CO₂ emissions to the atmosphere, and installing fiber optic cable may actually substitute for some physical travel, so this kind of road improvement and communication projects has a positive impact in relation with mitigation of climate change.

106. These impacts have been captured in the prepared safeguards instruments. To mitigate the anticipated negative impacts, environmental protection and social clauses will be incorporated in the civil works contract documents. Compliance in implementation will be monitored by the supervision consultants of MTRB and KeNHA. The Environmental and Social Management Plan will be incorporated in contract documents for packages to be financed by China EXIM Bank and by the World Bank under the first project, and it will be also incorporated by other donors parallel financing the program or co-financing any subsequent project. China EXIM Bank has agreed to follow international standards and practices, the laws and regulations of the South Sudan as well as bilateral agreements. Supervision of safeguards may have to be carried out separately or through GRSS with the support of an independent firm.

107. The major safeguards challenge is the implementation of the resettlement and safeguards mitigation measures. Given the limited capacity of MTRB, an independent firm will be engaged under the project to help GRSS through the resettlement process and monitoring of the implementation of the mitigation measures, while building the in-house safeguards management capacity. This will help to reduce the risk, not only with the Bank financed components, but also serves as a sound supervision and monitoring mechanism for ensuring adoption and adherence to the safeguard instruments that are consistent with Bank's policy to Project components to be financed by China EXIM Bank under this first phase, and provided to all future development partners financing the program by both the GoK and the GRSS. As per the financing agreement, GRSS will ensure that the safeguard instruments prepared for the Juba-Nadapal road are adopted and complied with by all development partners co-financing this project in parallel or any other subsequent projects. Likewise, the financing agreement requires GRSS to employ, no later than six months from the Effective Date and maintain throughout the implementation of the Project, an independent firm to provide advisory services through the resettlement process and related supervision and monitoring of the implementation of the impact mitigation measures recommended by the Safeguard Documents under the Project.

G. Other Safeguards Policies Triggered

Safeguard Policies Triggered by the Project	Yes	No	
<u>Environmental Assessment (OP/BP 4.01)</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<u>Natural Habitats (OP/BP 4.04)</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<u>Pest Management (OP 4.09)</u>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<u>Indigenous Peoples (OP/BP 4.10)</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<u>Physical Cultural Resources (OP/BP 4.11)</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<u>Involuntary Resettlement (OP/BP 4.12)</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<u>Forests (OP/BP 4.36)</u>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<u>Safety of Dams (OP/BP 4.37)</u>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<u>Projects on International Waterways (OP/BP 7.50)</u>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<u>Projects in Disputed Areas (OP/BP 7.60)*</u>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

* *By supporting the proposed project, the Bank does not intend to prejudice the final determination of the parties' claims on the disputed areas*

Annex 1: Results Framework and Monitoring

**Africa: Project Name: South Sudan- Eastern Africa Regional Transport , Trade and Development Facilitation Project (First Phase of Program)
(P131426)**

Table 1.1(a) - Results Framework for the First Project

Project Development Objectives											
PDO Statement											
The objective of the Project is to enhance regional connectivity and integration of the Recipient with its Eastern Africa neighboring countries, and its access to sea ports.											
These results are at		Project Level									
Project Development Objective Indicators											
Indicator Name	Core	Unit of Measure	Baseline	Cumulative Target Values					Frequency	Data Source/ Methodology	Responsibility for Data Collection
				YR1	YR2	YR3	YR4	End Target			
Reduction in travel time between Juba and Mombasa	<input type="checkbox"/>	Days	8.00	0.00	0.00	0.00	7.00		Annual	Project progress report by implementing entities	MoTI & MTRB
Reduction in transport cost	<input type="checkbox"/>	Percentage	0.00	0.00	0.00	0.00	5.00		Annual	Project progress report by implementing entities	MoTI & MTRB
Road in good and fair condition as a share of the Juba –Mombasa Corridor (%)	<input type="checkbox"/>	Percentage	45.00	45.00	45.00	46.00	47.00		Annual	Project progress report by implementing entities	MoTI & MTRB
Direct project beneficiaries	<input checked="" type="checkbox"/>	Number	0.00				655,162		Annual	Project progress report by implementing entities and National	MoTI & MTRB National Statistics Offices in South Sudan and Kenya

										statistical reports	
Female beneficiaries	<input checked="" type="checkbox"/>	Percentage Sub-Type Supplemental	50				50.00				
Intermediate Results Indicators											
Indicator Name	Core	Unit of Measure	Baseline	Cumulative Target Values					Frequency	Data Source/ Methodology	Responsibility for Data Collection
				YR1	YR2	YR3	YR4	End Target			
Length of Road Rehabilitated – non rural (km)	<input type="checkbox"/>	Kilometers	0.00	0.00	0.00	20.00	40.00		Annual	Project progress report by implementing entities	MoTI and MTRB
Reduction in number of road blocks along the Juba-Nadapal-Eldoret road	<input type="checkbox"/>	Number	5.00	0.00	0.00	4.00	3.00		Annual	Project progress report by implementing entities	MoTI and MTRB (on behalf of NCMC)
Reduction in custom clearance processing time by South Sudan Customs Services	<input type="checkbox"/>	Days	2 to 3				Less than 2 days		Annual	Project progress report by implementing entities	SSCS
Introduction of a CPMS	<input type="checkbox"/>	Yes/No	No		Yes				Once	Project progress report by implementing entities	MoTI and MTRB
Number of contracts completed within planned time and budget	<input type="checkbox"/>	Number	0.00	0.00	0.00	0.00	10.00		Annual	Project progress report by implementing entities	MoTI and MTRB
Length of fiber link installed (km)	<input type="checkbox"/>	Kilometers	0.00	0.00	340.00				Once	Progress report by implementing entities	MTRB and MoIBTPS

										entities	
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Table 1.1. (b) - Results Framework for the First Project

Project Development Objective Indicators	
Indicator Name	Description (indicator definition etc.)
Reduction in travel time between Juba and Mombasa	The current travel time is about 8 days and after first project completion this is expected to reduce to 7 days
Reduction in transport cost	Cost reduction expected from improvement of the road and the transit regime
Road in good and fair condition as a share of the Juba – Mombasa Corridor (%)	Currently the road between Eldoret-Mombasa is in good and fair condition. At the end of the project about 40 km of the Juba-Nadapal road to be financed by the World Bank will be in good and fair condition.
Direct project beneficiaries	Direct beneficiaries are people or groups who directly derive benefits from an intervention (i.e., children who benefit from an immunization program; families that have a new piped water connection). Please note that this indicator requires supplemental information. Supplemental Value: Female beneficiaries (percentage). Based on the assessment and definition of direct project beneficiaries, specify what proportion of the direct project beneficiaries are female. This indicator is calculated as a percentage.
Female beneficiaries	The number of population within Kapoeta district/county as estimated by the feasibility study consultant.
Intermediate Results Indicators	
Indicator Name	Description (indicator definition etc.)
Length of Road Rehabilitated – non rural (km)	Road to be rehabilitated during the first phase of the program - the project
Reduction in number of road blocks along the Juba-Nadapal-Eldoret road	One check point at the Nadapal border is expected to remain
Reduction in custom clearance processing time by South Sudan Customs Services	To be monitored by SSCS through the performance improvement monitoring process
Introduction of a CPMS	System in place and monitoring conducted over project period.

Number of contracts completed within planned time and budget	Number of major works and consultancy contracts to be implemented under the project.
Length of fiber link installed (km)	Length of the fiber link between Nadapal and Juba

Table 1.2 (a)- Results Framework for Overall Program

Project Development Objectives											
PDO Statement											
The objective of the Project is to enhance regional connectivity and integration of the Recipient with its Eastern Africa neighboring countries, and its access to sea ports.											
These results are at		Program Level									
Project Development Objective Indicators											
Indicator Name	Core	Unit of Measure	Baseline	Cumulative Target Values					Frequency	Data Source/ Methodology	Responsibility for Data Collection
				YR1	YR2	YR3	YR4	End Target			
Reduction in travel time between Juba and Mombasa	<input type="checkbox"/>	Days	8.00	0.00	0.00	0.00	0.00	5.00	Annual	Project progress report by implementing entities	MoTI & MTRB
Reduction in transport cost	<input type="checkbox"/>	Percentage	0.00	0.00	0.00	0.00	10.00	20.00	Annual	Project progress report by implementing entities	MoTI & MTRB
Road in good and fair condition as a share of the Juba –Mombasa Corridor (%)	<input type="checkbox"/>	Percentage	45.00	45.00	45.00	48.00	63.00	100.00	Annual	Project progress report by implementing entities	MoTI & MTRB

Reduction in cost of ICT access	<input type="checkbox"/>	Percentage	0.00	0.00	0.00	50.00	50.00	50.00	Once	Survey of Telecom companies	MoTPs
Increase in trade volume between South Sudan and Kenya	<input type="checkbox"/>	Percentage	0.00	0.00	0.00	50.00	50.00	50.00	Once	Survey of records of imports and exports at border posts and National statistical reports	SSCS/KRA
Direct project beneficiaries	<input checked="" type="checkbox"/>	Number	3.47	0.00	0.00	0.40	0.83	3.47	Annual	Project progress report by implementing entities and National statistical reports	MoTI & MTRB National Statistics Offices in South Sudan and Kenya
Female beneficiaries	<input checked="" type="checkbox"/>	Percentage Sub-Type Supplemental	0.00	0.00	0.00	50.00	50.00	50.00			

Intermediate Results Indicators

Indicator Name	Core	Unit of Measure	Baseline	Cumulative Target Values					Frequency	Data Source/ Methodology	Responsibility for Data Collection
				YR1	YR2	YR3	YR4	End Target			
Length of Road Rehabilitated – non rural (km)	<input type="checkbox"/>	Kilometers	0.00	0.00	0.00	0.00	165.00	935.00	Annual	Project progress report by implementing entities	MoTI and MTRB
Reduction in number of road blocks along the	<input type="checkbox"/>	Number	5.00	0.00	0.00	4.00	3.00	1.00	Annual	Project progress report by	MoTI and MTRB (on behalf of NCMC)

Juba-Nadapal-Eldoret road										implementing entities	
Reduction in total time required for trucks to cross defined border crossing along the corridor in participating countries	<input type="checkbox"/>	Percentage	0.00					100.00	Annual	-Survey of truck companies & freight forwarders -Trip surveys -Survey of gate record	MoTI & MTRB
Reduction in custom clearance processing time by South Sudan Customs Services	<input type="checkbox"/>	Days	3.00	3.00	3.00	3.00	3.00	2.00	Annual	Project progress report by implementing entities	SSCS
Introduction of a CPMS	<input type="checkbox"/>	Yes/No	No	Yes	Yes	Yes	Yes	Yes	Once	Project progress report by implementing entities	MoTI and MTRB
Establishment of One Stop Border Post at Nadapal	<input type="checkbox"/>	Yes/No	No	No	No	No	No	Yes	Once	Project progress report by implementing entities	MoTI and MTRB
Reduction in number of accident black spots along the Juba-Eldoret corridor	<input type="checkbox"/>	Percentage	0.00	0.00	0.00	0.00	20.00	50.00	Annual	Project progress report by implementing entities	MoTI & MTRB
Establishment of functional rest stops	<input type="checkbox"/>	Number	0.00	0.00	0.00	0.00	0.00	5.00	Once	Project progress report by implementing entities	MoTI & MTRB

Establishment of export processing zones around Kapoeta, Torit, Lodwar and Marich Pass	<input type="checkbox"/>	Number	0.00	0.00	0.00	0.00	0.00	4.00	Once	Project progress report by implementing entities	MoTI and MTRB
Increase in outbound traffic	<input type="checkbox"/>	Number	0.00	0.00	0.00	0.00	35.00	70.00	Annual	Project progress report by implementing entities	MoTI and MTRB
Fully functional customs services	<input type="checkbox"/>	Yes/No	No	No	No	No	No	Yes	Once	Project progress report by implementing entities	MTRB and SSCS
Sustainable road maintenance financing mechanism in place in South Sudan	<input type="checkbox"/>	Yes/No	No	No	No	No	No	Yes	Once	Project progress report by implementing entities	MTRB
Fully functional border management unit within KRA	<input type="checkbox"/>	Yes/No	No	No	No	No	No	Yes	Once	Project progress report by implementing entities	MoTI and KRA
Length of fiber link installed (km)	<input type="checkbox"/>	Kilometers	0.00	0.00	395.00	395.00	395.00	395.00	Once	Progress report by implementing entities	MTRB and MoIBTPS

Table 1.2 (b)- Results Framework for Overall Program

Project Development Objective Indicators	
Indicator Name	Description (indicator definition etc.)
Reduction in travel time between Juba and Mombasa	The current travel time is about 8 days and after program completion this is expected to reduce to 5 days
Reduction in transport cost	Cost reduction expected from improvement of the road and the transit regime
Road in good and fair condition as a share of the Juba – Mombasa Corridor (%)	Currently the road between Eldoret-Mombasa is in good and fair condition. At the end of the program the entire road- about 935 km of the Juba-Eldoret road will be in good and fair condition.
Reduction in cost of ICT access	Reduction in ICT access cost due to the installation of fiber optics. Currently the internet cost in South Sudan is US\$450 per Gigabyte.
Increase in trade volume between South Sudan and Kenya	Increase in trade due to the transport, trade and development facilitation from Origin and Destination surveys at Nadapal. In 2013 import from/through Kenya to South Sudan was about 380,000 tons while export to/through Kenya was about 137 tons.
Direct project beneficiaries	Direct beneficiaries are people or groups who directly derive benefits from an intervention (i.e., children who benefit from an immunization program; families that have a new piped water connection). Please note that this indicator requires supplemental information. Supplemental Value: Female beneficiaries (percentage). Based on the assessment and definition of direct project beneficiaries, specify what proportion of the direct project beneficiaries are female. This indicator is calculated as a percentage.
Female beneficiaries	Based on the assessment and definition of direct project beneficiaries, specify what percentage of the beneficiaries are female.
Intermediate Results Indicators	
Indicator Name	Description (indicator definition etc.)
Length of Road Rehabilitated – non rural (km)	Road to be rehabilitated during the entire program
Reduction in number of road blocks along the Juba-Nadapal-Eldoret road	One check point at the Nadapal border is expected to remain
Reduction in total time required for trucks to cross defined border crossing along the corridor in participating countries	Between the time of entering the border zone of the exiting country and the time of exiting the border zone of the exiting country)(respective direction) Measurement of progress towards reduction of non-tariff barriers and logistic service provider’s performanceto trade along corridors. Nimule border crossing is estimated at 48 hours and considered as a base line

	reference.
Reduction in custom clearance processing time by South Sudan Customs Services	The time between the submission of the declaration and the release note from the Customs. Declarants performance and non-Customs agencies performance will impact the indicator, but Customs must be also responsible to improve the declarants quality and performance and pivotal role to encourage the non-Customs agencies' performance improvement. To be monitored by SSCS through the performance improvement monitoring process.
Introduction of a CPMS	System in place and monitoring conducted over project period.
Establishment of One Stop Border Post at Nadapal	Measurement of progress towards improved transit processing at border crossings.
Reduction in number of accident black spots along the Juba-Eldoret corridor	Measurement of progress towards improved road safety measures along the Juba-Eldoret corridor. Baseline data to be collected through the Road Safety audit to be conducted in the first project.
Establishment of functional rest stops	Measurement of progress towards provision of adequate services along the Juba-Eldoret corridor.
Establishment of export processing zones around Kapoeta, Torit, Lodwar and Marich Pass	Measurement of progress towards increasing agriculture based exportable products.
Increase in outbound traffic	Daily traffic crossing the Nadapal border from South Sudan side, which accounts to about equivalent of 100 percent of the forecast diverted traffic. This will be updated based on the progress of investment along the corridor
Fully functional customs services	SSCS fully staffed according to & its organization structure
Sustainable road maintenance financing mechanism in place in South Sudan	Measurement of progress towards establishing a stable mechanism for road maintenance - establishing a road fund
Fully functional border management unit within KRA	KRA border management unit fully staffed and operational
Length of fiber link installed (km)	Length of the fiber link between Lokichoggio and Juba

**Target values should be entered for the years data will be available, not necessarily annually.

Annex 2: Detailed Project Description

AFRICA: Project Name: South Sudan- Eastern Africa Regional Transport, Trade and Development Facilitation Project (First Phase of Program) (P131426)

A. Project Components

1. Various development partners, including African Development Bank (AfDB), China EXIM Bank, the European Investment bank (EIB) and the Government of Japan have expressed interest to support the initiative and may engage in the process at different timing. This program will closely coordinate with the Kampala–Juba–Addis corridor initiative currently supported by AfDB, focusing on improving the infrastructure connecting Uganda, South Sudan and Ethiopia, including the upgrading of the Juba to Kapoeta link, which is the common section to both Mombasa and Djibouti corridors. The trade facilitation measure in the second phase will extend to the corridors connecting South Sudan to Djibouti and the neighboring countries. The extension of the Juba–Eldoret corridor towards Tanzania, as part of development of EAC’s corridor No. 3, would be a follow on program, although the trade facilitation component would include some actions along this corridor. As the program involves operations in a post conflict country, it is designed in a simplified way to be implemented in phases, first phase involving South Sudan and Kenya, focuses on the Juba–Nadapal–Eldoret corridor.

2. The principal factors for focusing on the upgrading of the Juba–Nadapal–Eldoret road are: (a) The Nadapal corridor traverse only one transit regime and will be the cost effective and shortest connection to Mombasa, in terms of truck turnaround time. It will also strengthen the trading operating between South Sudan and Kenya; (b) The Nadapal corridor opens access to an alternative sea port (Djibouti). This corridor also shares major part of the Kampala–Juba–Addis regional corridor, promoted by the AfDB, hence enhancing trade among the three countries; and (c) The Nadapal corridor opens the massive fertile land in Eastern Equatoria and Southern Jongile states, which is attractive for non-oil based and export oriented investment, due to the proximity to the regional and international markets, as well as the abundant agricultural potential and animal resources, and the adjoining area in Kenya that is characterized by perennial food shortages because of frequent droughts.

3. The program will be implemented in three phases. The first project – Phase 1 of the program, will consist of the following components:

Components of the first project-phase 1 of the program

SOUTH SUDAN

4. **Component 1: Support to the Ministry of Transport, Roads and Bridges (MTRB) (US\$222 million of which IDA financing is US\$47 million).** China EXIM Bank, the World Bank and AfDB have expressed interest to support the Juba – Nadapal road. EIB has the intention of providing financing to the road upgrading in the South Sudan side after reviewing the design and subject to South Sudan signing the Cotonou agreement. The support from the former two financiers to the first phase is expected to cover the upgrading costs for the section from Juba to Lobira, while AfDB will be engaged in the second phase. *The financing from the*

potential development partners will support the MTRB to implement the upgrading part of the project. With this understanding the Government of South Sudan suggested the following arrangement:

5. ***Sub-component 1 (a):*** *Upgrading of approximately 125 km of the Juba–Torit section of the Juba–Nadapal–Eldoret corridor (about US\$166 million representing about US\$158 million for the civil works plus US\$8 million for supervision) to be 100 percent financed by the China EXIM Bank and Government of the Republic of South Sudan (GRSS). China EXIM Bank is expected to provide a loan in the amount of US\$150 million, 85 to 95 percent of the cost for the civil works, while the GRSS will contribute about US\$8 to US\$24 million as a down payment plus the supervision cost for this section estimated at about US\$8 million. Given the financial constraints of GRSS the option of contributing 5 percent of the civil works cost has to be negotiated with China EXIM Bank.*

6. ***Sub-component 1 (b):*** *(i) - Construction and rehabilitation of bridges between Kapoeta and Nadapal, and upgrading of approximately 40 km of the Kapoeta–Narus section of the Juba–Nadapal–Eldoret corridor through a design and build arrangement; and (ii) –related supervision services cost (about US\$50 million). This will focus on constructing bridges (reconstruction of old bridges and replacement of existing collapsed baily bridges and drifts) starting about 10 km before (coming from Juba side) entering into Kapoeta and up to Nadapal, which are critical to ensure all season passability of trucks, and upgrading of the road to a gravel sub-base level, to be paved under the second project. This section will be financed by the World Bank and GRSS contribution, with the allocation of US\$47.5 million and US\$4.5 million, respectively.*

7. ***Sub-component 1 (c):*** *Road repair of approximately 190 km sections between Torit and Kapoeta and Narus and Nadapa (US\$2 million) to be financed by GRSS. In addition, GRSS will provide about US\$2.5 million for compensations to be paid for land acquisition for sections to be upgraded under the first project.*

Component 2: Facilitation of Regional Transport, Trade and Development (US\$12 million of IDA financing)

8. ***Support to the Ministry of Finance, Commerce Investment and Economic Planning (MoFCEP)/ South Sudan Customs Services of GRSS to facilitate Regional Trade, Transport and Development:*** This component supports promoting sound transport and trade facilitation measures increasing efficiency of the performance of corridor, in order to lower the cost of doing business and enhance trade in the sub region. This will also enhance the gains from the investment in transport infrastructure and contribute to the ultimate goal of facilitating economic growth and poverty reduction in the sub-region. This component will support the process of creating common understanding of the challenges of transport, trade facilitation and development among the key stakeholders in the sub-region and helps to develop strategies to eliminate trade and development barriers. It also supports priority trade facilitation and development measures along the Juba–Nadapal–Eldoret corridor. This includes:

9. ***Sub-component 2(a):*** Support to MoFCEP and SSCS for the facilitation of trade, transport and development for the establishment of an institutional base and legal framework,

(US\$7 million) , including: (i) harmonization of customs procedures and setting the legal and institutional arrangements for the establishment of One Stop Border Post (OSBP) at Nadapal; (ii) provision of advisory services for the modernization of the Recipients custom services; (iii) implementation of integrated border management, through rationalizing and streamlining the number of formalities, number of agencies at the border post and user fee structures ; and (iv) provision of advisory services and equipment for the establishment of a Trade Information Platform/Portal within MoFCEP. This includes support to prepare for the WTO accession.

10. *Sub-component 2 (b)*: Support to MTRB for the facilitation of transport, trade and development (US\$5 million), including: (i) carrying out trade and development facilitation study and transport review; (ii) preparation of transit transport agreement and protocol, and support to the Recipients national corridor management committee; (iii) preparation of legal agreements and regulations for the establishment of a vehicle overloading control system between the two countries and preparation of the Recipients national vehicle overloading control bill; (iv) development of a legal framework on traffic and safety, and carrying-out a Road Safety audit along the Juba - Nadapal road; (v) implementation of a corridor performance monitoring system (CPMS); (vi) carrying out social infrastructures and social services needs assessment along the Juba - Nadapal corridor; and (vii) carrying out studies and ESIA for services at rest stops, export processing zones (site and services, including access road, electricity, water, customs bonded warehouses, products certification office, storage facilities, etc), simplification of export-import processes , including through electronic document handling and online customs processing and certification of export products. The social infrastructure include: support to HIV/AIDS prevention campaign; shelter for vulnerable groups at border posts; social service facilities at rest stops and export processing zones; basic facilities for local community such as water points, etc.).

Component 3: Institutional Development and Program Management (US\$6 million of IDA financing)

11. *Sub-component 3 (a)*: Strengthening of MTRB's institutional capacity through the provision of advisory services and training as well as preparation of sectoral governance and anti-corruption strategy to enhancing good governance in the transport sector.

12. *Sub-component 3(b)*: Provision of advisory services to MTRB to strengthen its safeguards management capacity through engaging an independent safeguards management firm to help the ministry through the process of the resettlement and monitoring of implementation of safeguard measures while strengthening the in-house safeguards capacity.

13. *Sub-component 3 (c)*: Provision of advisory services, training and logistical support (including office equipment, materials, supplies) and operating costs required to sustain management and coordination of Project implementation activities including audits and monitoring and evaluation of progress achieved in the execution of the Project. This includes support to SSCS, South Sudan National Bureau of Standards (SSNBS), and other institutions providing technical support to the implementation of the project.

Component 4: Connecting Juba with Fiber Optics (US\$15 million of IDA financing)

14. Construction of a fiber optic cable alongside the road from Juba to Lokichoggio in the Republic of Kenya at the Juba - Nadapal - Eldoret Corridor portion located in the Recipient's territory. This component will support: sub-component 4 (a) the construction of a fiber optic cable alongside the road from Juba into Kenya (Lokichoggio) to bring high speed broadband internet connectivity into South Sudan for the first time. The construction of the road into Kenya offers a one-time opportunity to create a high-capacity, reliable terrestrial fiber link. On the Kenyan side of the border, fiber reaches as far as Lokichoggio, about 30 km from the Nadapal, and from there connects to submarine cables off the coast at Mombasa. Constructing the fiber cable at the same time as the road will reduce costs and will avoid disruption that would occur if it was built at a later date than the road. The fiber will be installed within the right-of way of the road, adjacent to the side drains in rural areas and under the pedestrian walkway in urban areas. Sub-component 4(b) PPA for the ICT component (US\$0.5 million) to be used for: (i) technical design study for the fibre optic cable and preparation of bidding documents; (ii) establishment of an Internet exchange point (IXP) and management of the .ss country code top-level domain (ccTLD), to ensure the application of open access principles for the additional bandwidth; (iii) recruitment of telecom experts to join the project implementation unit, hosted by the Ministry of Transport, Roads and Bridges; and (iv) other tasks required for the successful preparation for the project.

KENYA

15. In parallel with the implementation of the first project in South Sudan, Kenya will implement preparatory activities for the second project and studies to be implemented in tandem with the first project under a Project preparation Advance (PPA) for Kenya. The activities include:

Facilitation of Regional Transport, Trade and Development - to be financed under PPA

16. (a): *Support to KeNHA for facilitation of trade and transport (US\$3 million)*, including: (i) Carrying out a study on social infrastructure and social services delivery needs assessment, (ii) Introduction of CPMS; and (iii) conducting Road Safety audit along the Nadapal - Eldoret road.

17. (b): *Support to Kenya Revenue Authority (KRA) for facilitation of trade (US\$1.2 million)*, including: (i) Capacity building and technical assistance for strengthening the Customs Department, including training of KRA staff in valuation, risk management, etc.; and strengthening the border management unit of KRA.

18. (c): *Support to Ministry of Transport and Infrastructure (MoTI) for development of export processing zones and tourism (US\$1 million)*, including: (i) carrying out of studies and ESIA for site and services for the export processing zones and tourist attraction sites, certification of export products and simplifying the process of import-export; and (ii) Support to national corridor management committee.

Institutional Development and Program Management (US\$0.8 million)- to be financed under PPA, including:

19. (a): *Institutional development and Project implementation support to KeNHA*, through provision of advisory services, training and logistical support (including office equipment, material, supplies) and operating costs, including audit (technical, financial and environmental and social), monitoring and evaluation.

20. (b): *Support to MoTI for program coordination and implementation*. The support to MoTI of Kenya for coordination of the program and coordination with regional institutions. This includes support to project coordination and management for components to be implemented by MoTI, as well as the overall coordination of the regional operation to be hosted by MoTI, through provision of advisory services, training and logistical support (including office equipment, material, supplies) and operating costs, , including audit, and project outcomes monitoring, and Workshops.

Detailed Description of Components

Road Infrastructure Improvement

21. *Innovative and sustainable design approach*: On contract sections that are shorter than 150 km a design-build (DB) contract will be adopted and this will be followed by a road asset management contract for a longer section during the second project-phase 2 of the program. The section to be financed by the World Bank in the first project-phase 1 will be subject to such arrangement. AfDB may consider the adoption of a DB approach. Further, for the section to be financed by the World Bank in the first project, the GoSS will adopt stage construction approach, where by the bridges and gravel will be built at initial stage and the gravel section will be upgraded to an asphalt road standard during the second phase as part of the road asset management contract. To sustain the improvement and allow contractors to use innovative methods that could reduce the upgrading cost, an OPRC arrangement will be adopted for stretches with a length of about 150 km. The OPRC contract will include a three year construction and five years maintenance periods, which requires a total of eight years contract. The cost estimate for the upgrading is based on the design engineers detailed cost estimate. A five percent provision is allowed for the maintenance part of the contract. In the first five years the intensity of maintenance is expected to be low for a road upgraded to an Asphalt Concert standard, under OPRC arrangement. As competition for construction tenders in South Sudan is somewhat limited, the tender will be widely advertised internationally to attract more contractors. A supervision cost, equivalent to about five percent of the civil works has been included in the total cost estimate.

Trade and Development Facilitation

22. The transport, trade and development facilitation study on key regional corridors will be undertaken based on Terms of Reference that would consider the Trade and Transport Facilitation Assessment Toolkit of the World Bank with the objective of identifying bottlenecks

and preparing prioritized regional corridors development and trade facilitation programs for the sub-region.

23. This sub-component *inter alia* will cater for road transport reform review with the objective of identifying the challenges for delivering cost effective and reliable transport services along the priority corridors and device strategies to reduce transportation cost and enhancing delivery of efficient transport services.

24. The study will review the constraints at the Port Djibouti (TMEA has conducted a study on Mombasa) that would be potential impediments to efficient and secured handling of cargos from and to South Sudan. As the ports will be serving multiple land locked countries the study will identify measures, including reduction of port dwell time, port handling fees, cargo clearance procedures, and security of goods in transit at the port that will have to be implemented through the NCTTCA and the partners of the Djibouti corridor.

25. The study will also identify constraints along the corridors linking South Sudan to Sudan and other neighboring countries and determine measures that will improve the movement of cross border traffic along the corridors. The recommendations of the study would be implemented under phase 2 of this program.

26. The *social infrastructures and social services delivery needs assessment, including HIV/AIDS prevention, and conducting Road Safety audit along the corridor* will focus on sensitizing key government, private sector and civil society organization to enhance their engagement in the provision of services in combating HIV/AIDS, establishing counseling centers, sensitization campaigns, as well as improving the services provided at border posts and rest stops. The social services include the social-economic activities to be provided at rest stops.

27. The objective of the support to HIV/AIDS prevention is to promote activities conducive to the reduction of infection and transmission risks of HIV/AIDS and other sexually transmitted diseases and infections among the high risk groups along the corridor, targeting truck drivers and affected local populations. The support will be focused on sensitization and using existing government, private and NGO health facilities for testing and as wellness centers.

28. The Road Safety initiative along the corridor will support establishing accident database and promoting strategies that will help to reduce road accident along the corridor, including sensitization and education of drivers, and improving trauma management. This will also include the undertaking of a Road Safety Audit with detailed design for improvement of accident “black spot”; and the undertaking of a Road Safety management capacity review for the corridor and developing a pilot ‘safe corridor’ initiative. This is a multinational task.

29. The *CPMS* will help to identify bottlenecks and adopt appropriate corridor efficiency improvement measures. The program will support the monitoring of the border crossing time and effectiveness of the procedures, reduction of physical barriers along the corridors, effectiveness and efficiency of the trade and transport facilitation measures, including the social and economic infrastructure, as well as the institutional and legal frameworks. The project will monitor transit

time and transportation cost trends over the project life time and will leave behind a Corridor Performance Monitoring System that would help carry this function sustainably.

30. *Establishing transit and transport agreements, as well as establishing national corridor management committees:* Agreements governing transit transport and transport operation modalities have to be legalized/formalized. South Sudan is a member of NCTTCA and may join other corridor transit traffic facilitation institutions or initiatives, such as the Djibouti corridor as well. This task will include:

- support to the drafting of Memorandum of Agreement (MOA) between the EAC and South Sudan for adopting EAC transport corridor protocols;
- preparing transit and transport agreement between Kenya and South Sudan to lay out the framework for the use of the Mombasa port, transit procedures (requirements for border crossing, options for green lanes at control posts, and other transit issues), and regulations governing access right for truckers from both sides entering the market. The agreement will also include the arrangements for the establishment of an OSBP;
- support to a study for establishing national corridor management committees and drafting a bylaw and sensitize stakeholders for establishment and making the committees operational.

31. *Support to South Sudan Customs Services.* This is designed as a complementary task to the activities in progress under the support of TMEA. South Sudan is a new country aspiring to join regional communities and it has to adopt common legal frameworks and operational procedures practiced in the sub-region. The East African Community Customs Union has been established and member countries are expected to align their modes-operand currently in place with the legal and operational instruments adopted by the Union.

32. Given the change environment and the objective of instilling efficiency in corridor performance as well as enhancing export oriented growth, and the building on ongoing support to the South Sudan Customs Services, the support will focus on providing Technical Assistance (TA) in support of creating a critical mass of human resources through series of training, and availing short and long term consultants to enhance the services delivered by the SSCS while in tandem providing on-the-job-training. The AfDB is currently supporting SSCS to have a better office space, which is a requirement to the human capital building process.

33. TMEA is supporting the SSCS in harmonization of legal frameworks and customs procedures with the neighboring countries. In line with this it has helped in the drafting of a Memorandum of Understanding that was signed between SSCS and Kenyan Customs Authority. TMEA is also supporting SSCS in the process of accession of the EAC Customs Union. TMEA has helped SSCS to join the World Customs Organization (WCO). Further, it has the intention of computerizing the operations of SSCS and introduction of ASYCUDA ++. In line with this, it has started to connect the Nadapal Customs Office with the Headquarters of SSCS, as part of the initiative to modernize the SSCS. This program will partner with TMEA through provision of

TA to the modernization process focusing on customs procedures and institutional reform, and human resource development. TMEA is also providing TA to SSNBS.

34. *Support to integrated border management* through rationalizing and streamlining the number of formalities, number of agencies at the border post and user fee structures. Currently, service delivery mechanism is based on cumbersome procedures and formalities through various institutions. Inter-institution coordination has to target one window service delivery. Integrating the procedures and personnel from both countries has to be also sought in the long term. The number of fees, fee rate, fee base, collection method, and lack of transparency are not supporting the objective of trade facilitation. Currently the fee structure is geared towards revenue maximization.

35. *Support to Customs Department of KRA.* As part of the wider Revenue Administration Reform and Modernization Program, Customs Services Department has been implementing Reforms and Modernization program since 2004. The objective is to transform the department into a modern administration in accordance with best practice as outlined in WTO agreements and WCO Revised Kyoto convention on simplification and harmonization of customs procedures. The customs reform initiative will cause fundamental change in operation, which calls for operational changes more pronounced in the area of audit, valuation, risk management and computerization, yet currently the department does not have the requisite skills to support these critical functions. Improved skills in these critical functions will directly impact on how effectively the department will respond to the changing environment and successfully implement the reform program. KRA has requested support for the capacity building aspects of the customs reform initiative and implementation of the ICT initiatives which targets to overhaul the ICT systems and operations.

36. In line with this the project will support the provision of training to the staff of the Customs Department in the areas of valuation, risk management and audit. KRA has established a Border Management Unit in 2013 and the support under this project will target strengthening the unit through provision of training and equipping the office. The ICT reform is a mega project, which will be financed by KRA and multiple development partners. This project targets supporting the development of second ICT Strategy and develop disaster recovery and business continuity plans.

37. *National corridor management committee.* Trade and border management is complex and involves several stakeholders and requires strong coordination mechanism. In this regard, South Sudan will establish a NCMC under a PPA provided to this project. During implementation the support will continue in organizing sensitization workshops and providing TA to the emerging freight forwarders association, transporters association, etc. The project will also cater for operational costs of the committee. The support will be managed by the SSCS. List of stakeholders and functions of the committee are presented in annex 3. The project will also support the establishment and operationalization of a NCMC on the Kenyan side.

38. *Support to establishing a one stop border post (OSBP).* The current situation at the border crossing of Nadapal is characterized by a lack of interagency co-operation, no structured sharing of information, no co-ordination in operating hours between agencies on the same and

opposite sides of the border, insufficient parking space, no ICT connectivity, and a lack of coverage and necessary equipment for physical inspections. The challenge on the South Sudan side is profound. The customs process is manual, as there is no power and human resource to run electronic based system, and moreover modern customs procedures and systems are not yet adopted. Average crossing times for imports into South Sudan are 24 hours, but with a significant standard deviation. *The OSBP will be implemented following a design and build arrangement in the second phase.*

39. The two governments have resolved to establish OSBP around Nadapal, drawing lessons from the other seven OSBPs between Kenya and its neighboring countries. The OSBP establishment process will build on the common framework of customs operations and legal agreements. This component will support the establishment of OSBP on each side of the two countries, and address the challenges of connectivity and harmonization of procedures. The modalities of operation will be elaborated by the study proposed to be undertaken in the first phase.

40. Gender issues will be considered carefully during the design phase, to ensure that any intervention offers adequate protection for users, irrespective of gender. This will focus on feasibility study, design and bidding documents for establishing OSBP around Nadapal, as well as establishing the infrastructure required for the OSBP, including parking lots, customs offices with adequate IT infrastructure and power supply, preparation of site and services for establishing banking and insurance services; and establishing axle load control station. It also covers green lane, i.e., dedicated lane for transporters/traders for simplified border procedures and access road to the lane and the management system with view that the flow of eligible transporters would not be halted by congestion created by normal and high risk transporters. This sub-component will cover all the border agencies present at the OSBP and include the development of Standard Operation Procedures (SOP: for official use) and manual of procedures (for general use) covering both sides of the border, including green lane

41. *Trade Information Portal.* The former Ministry of Commerce Industry and Investment, which is re-established as Department of Commerce under MoFCEP is in charge of trade related regulatory information accessibility through its mandate to lead the work on the WTO accession process. The Department is also regulating trade by issuing trade permit. It has convening and coordination power in relation to the pertinent ministries and agencies. However, due to the absence of a platform access to trade information, including market prices, tariffs, trade formalities, etc is restricted or non-existent. TA and equipment support to create a Trade Information Portal in MoFCEP in collaboration with pertinent ministries and agencies with a view of enhancing information accessibility on trade and transport regulatory requirement to the stakeholders and to prepare for WTO accession is considered under this project. This will include support to create an integrated tariff database and downloadable formalities on the Trade Information Portal targeting a Single Window Services provision. SSCS will be responsible for the implementation of this activity, mainly for financial management and procurement aspects while the Department of Commerce will be leading on technical matters. SSCS and the Department of Commerce are under the same ministry and coordination will be an internal issue to be handled based on internal administrative procedures.

42. *Studies, including design and ESIA for rest stops, export processing zones, and storage facilities:* The establishment of rest stop involves the construction of a consolidated rest stop, Weigh Bridge at Nadapal and police posts at Torit, Kapoeta and Nadapal, as well as at Logichokio, Marichpas Lodwar. Resource permitting, construction of the rest stops will include parking lot, security services and site development for basic health and social facilities to be provided by private sector. Axle load control, Customs checks and police checks are expected to be concentrated at border crossings. Engineering design for the rest stops has been prepared as part of the road detailed engineering design. The focus at this stage is to conduct and identify the services to be provided at the rest stop and prepare a site development plan.

43. The export processing zone will focus on identifying the potential processing and light manufacturing activities to support the objective of the agriculture based export oriented development. It also includes facilities, such as animal quarantine, helping export of animal products and live animals. The study will also identify basic infrastructure required to attract investment to the site. The study will address issues related to certification of products, and simplification of the process for import-export. The studies will include ESIA of the rest stops and export processing zones.

Institutional Development and Program Management

44. *The support to MTRB* to enhance good governance in the transport sector involves: enhancing governance in the transport of South Sudan through: (a) strengthening fiduciary capacity of the MTRB of South Sudan, which involves provision of Technical Assistance and training in finance management, procurement, contract management, maintenance management, safeguards, and Monitoring and Evaluation (M&E); (b) preparation of governance and anti-corruption strategy for the transport sector; and (c) enabling South Sudan to comply with design and axle load standards of EAC, as well as the COMESA.

45. The support to project coordination and management for implementing entities in South Sudan, includes provision of TA, training, consultancy services, workshops, and operating costs to MTRB, SSCS, and SSNBS.

46. The support to KeNHA for project coordination and management for components to be implemented by Kenya, includes provision of TA and covering operating costs

47. *The support to MoTI-of Kenya* for coordination of the program and coordination with regional institutions, includes support to project coordination and management for components to be implemented by Kenya, as well the overall coordination of the regional operation to be hosted by MoTI, through provision of goods, technical assistance, services, Workshops and Training and Operating Costs.

48. **Operating Costs:** The operating costs shall include staff travel expenditures and other travel related allowances with prior clearance from the heads of the individual implementing entities; equipment rental and maintenance; vehicle operation, maintenance and repair; office rental and maintenance, materials and supplies; utilities and communication expenses; and bank charges. The projects will have provision to cover operating costs for expenses related to the

implementation of this specific project only. Operating Costs financed by the project will be procured using the administrative procedures applicable to national administrations that are acceptable to the Bank.

49. **Training, Capacity Building and Workshops:** The implementing entities shall submit their annual training plans to IDA for clearance. The plans shall include among other things the names of the officers to be trained, the training institutions/facilitators, the cost contents, justification for the training and the estimated cost.

Connecting Juba with Fiber Optics

50. It is planned to construct a fiber optic cable alongside the road from Juba into Kenya to bring enhanced international internet connectivity into South Sudan for the first time. South Sudan is only one of three African countries (the others being Eritrea and Somalia) that currently lack optical fiber connectivity. It is dependent on expensive and unreliable satellite connections, meaning that the price per Mb of data is around ten times higher than the African average. The construction of the road into Kenya offers a one-time opportunity to create a high-capacity, reliable terrestrial fiber link. On the Kenyan side of the border, fiber reaches as far as Lokichoggio, about 30 km from the Nadapal, and from there connects to submarine cables off the coast at Mombasa. Constructing the fiber cable at the same time as the road will reduce costs and will avoid disruption that would occur if it was built at a later date than the road. Burying the cable in the hard shoulder at the side of the road will also give a measure of protection from theft or breakage. The project will be undertaken on the South Sudan side by the MoTPS and on the Kenyan side will form part of the National Optical Fiber Backbone Infrastructure (NOFBI). It is anticipated that the private sector will play a leading role in constructing and operating the cable, and it is anticipated that a special purpose vehicle (SPV) will be created to manage access to the cable along open access principles. MoTPS has no experience in managing Bank supported projects, and thus, the MTRB will be responsible for the procurement and financial management aspects of this component, while MoTPS will be handling the technical part. A Memorandum of Understanding (MoU) will be signed between MoTPS and MTRB to show the detailed implementation arrangement and roles and responsibilities of all parties, as well as an MoU with the Kenyan Information and Communication Technology Agency to provide for open access to onward connectivity.

B. Specific Characteristics of the Corridor

51. The Juba - Nadapal - Eldoret road is part of a major regional trunk road that stretches from Mombasa to Nadapal, crossing the entire Kenya north-westerly direction, passing by Nairobi and Eldoret (also junction to Uganda, Rwanda and DRC). Then in South Sudan the same corridor extends from south eastern to north western borders of South Sudan, designated as national Road 2 (N2), which crosses Torit, and Juba the capital, and links the main population settlement areas in the central and north western part of South Sudan, and ultimately proceed to Sudan and Central African Republic.

52. In Kenya, the Nadapal - Eldoret segment offers the connection to Tanzania, going south bound after Eldoret, and branching out to Lamu port at around Lodwar (about 240 km away from

Nadapal) to the future alternative port to Uganda and South Sudan. The Nadapal to Juba segment as well offers the connection to Ethiopian and Djibouti from Kapoeta junction and to Uganda from Lobira junction.

53. The Nadapal-Juba road is currently a gravel road, which has a variable width of between 6 to 7 meters. The gravel material on this road is very abrasive and quickly changes to dust, being a major cause for road accident. The gravel material does not stand the heavily overload trucks and rampant potholes and ponds get created after every rainy season. Since 2005 the road has been repaired twice, which involved reshaping the road formation, side ditches clearing and reshaping, installation of pipe culvert at critical locations, and regravelling. Despite such heavy repairs, the road could not serve the current traffic and requires upgrading to an asphalt concrete standard. There are also several river crossings and wades along the road, and the upgrading will involve the construction of a number of new bridges, some spanning up to 150meters. The road traverses mostly flat terrain, except the few locations between Juba and Torit where the road runs on the foot of hills. The section around Narus passes through a rolling terrain ground.

54. The starting point for the upgrading will be at Nessitu junction to Nimule, about 20 km away from the White Nile. Nadapal is located about 340 km away from Nesitu. Torit is the only major town between Juba and the border, while Lirya, Lobira, Kapoeta, Narus and Nadapal are the small towns in between, which could provide basic services to road users. These towns are expected to become rest stops, as the road is upgraded as a regional corridor, which will be hot spots with a potential social risk, such as spread of HIV/AIDS.

55. The road between Kapoeta and Boma is dry weather road with about 4 to 5 meters wide cleared track. A minimum level of spot improvement to make the difficult heavily damaged part is required to make the road passable. There is no major settlement in between, except few spots of farms and pastoralist practice, despite the availability of abundant good agricultural land. The Lobira- Ikotos- Ktgum road is a narrow track 4 to 5 meters wide hardly passable during the rainy season, although there are some settlements and abundant fertile agricultural land.

56. The road between Nadapal and Eldoret is of the same standard and condition, as the road section between Juba and Nadapal, in South Sudan, except most of it is to bituminous standards, though it has heavily deteriorated due to lack of maintenance. The road passes through a rolling and hilly terrain in some locations between Marich Pass and Lokichoggio, about 200 km, which require the construction of several pipe and box culverts. The road requires upgrading to bituminous road, based on the same standard adopted for the Juba-Nadapal section. The section between Nadapal and Eldoret is semi-arid area and not densely populated, mainly used by pastoralists, and manifests high levels of poverty. Marich Pass Lokichogio and Lodwar are the major settlement centers in between, which would also be hot spots. Due to the poor condition of the corridor the region gets cut off from the rest of Kenya and South Sudan during the rainy season.

57. There are few road blocks/control points around Juba, Torit, Kapoeta, and Eldoret, other than the customs post at Nadapal. The customs post at Nadapal on the South Sudan side has no basic infrastructure and operates with very limited staff. The Head Quarters of SSCS in Juba does not have adequate working space. At Nadapal on the Kenyan side there is only a military

camp and a police post. The Kenyan customs post is at Lokichoggio, about 25 km away from the border, but it has basic facilities. There is no custom post at the border of Ethiopia and Uganda; as such movement across the borders is controlled by the border control police. The customs in South Sudan and Kenya apply different systems, Kenya uses SIMBA while South Sudan is attempting to use ASYCUDA ++. Currently all customs services in South Sudan are manual. There is no transit agreement between Kenya and South Sudan. South Sudan is member of the NCTTCA, which is facilitating the efficient use of the Mombasa Port and movement of traffic along the northern corridor serving Uganda, Rwanda, Burundi and Eastern DRC to which South Sudan has to be connected. South Sudan has applied to be a member of the East African Community (EAC), and it has an observer status currently. However, as it joins the community it has to adopt protocols governing regional transport within EAC.

58. The summary of the estimated costs for the program is presented in the Table below.

Table 2.1: Detailed Cost Estimates

It No	Component and Activity Description	Total Cost estimate (US\$ million)	% of Total Project Cost	Cost Estimate (US\$ million)- IDA	% of Total Project Cost	Cost Estimate (US\$ million)- Other Donors	% of Total Project Cost	Cost Estimate (US\$ million)- GRSS	% of Total Project Cost	Cost Estimate (US\$ million)- GOK	% of Total Project Cost
First Project											
	SOUTH SUDAN	255.0		80.0		150.0		25.0			
1	Component 1: Upgrading of priority road infrastructure	222.0	87.0	47.0	18.4	150.0	58.8	25.0	9.8		
1 (a)	<i>Sub-component 1(a) : upgrading of Juba/Nesitu –Torit road (China EXIM Bank)</i>	<i>166.0</i>				<i>150.0</i>		<i>16.0</i>			
1 (b) i	Upgrading of Kapoeta – Narus (World Bank and GRSS)- Civil works	48.5		44.0				4.5			
1 (b) ii	Upgrading of Kapoeta – Narus (World Bank and GRSS)- Monitoring and supervision	3.0		3.0							
1 (c)	Sub-component 1(c): spot improvement and road repairs between Torit and Kapoeta and Narus - Nadapal , and provision for compensations for land acquisition	4.5		-				4.5			
2	Component 2: Facilitation of Regional Transport, Trade and Development Facilitation	12.0	4.7	12.0	4.7	-					
2 (a)	Sub component 2 (a)- Support to MoFCEP/SSCS for establishing the institutional base and legal framework for trade and development facilitation	7.0		7.0		-					
2 (b)	Sub-component 2 (b) – Support to MTRB for facilitation of trade and development	5.0		5.0		-					
3	Component 3: Support to Institutional Development, Preparation and Program Management	6.0	2.35	6.0	2.35	-					
3.(a)	<i>Subcomponent 3(a)- Support to MTRB for strengthening the institutional base in South Sudan and program management</i>	<i>3.0</i>		<i>3.0</i>		-					
3.(b)	Sub-component 3 (b): Independent safeguards management firm.	2.0		2.0							
3.(c)	Sub-component 3 (c): Provision of advisory services, training and logistical support	1.0		1.0		-					
4.0	Component 4:- Connecting Juba with fiber optics	15.0		15.0							
4 (a)	Component 4 (a) installation of fiber optics	14.5		14.5							
4(b)	Sub-component 4(b): Project Preparatory Activities	0.5		0.5							
	Total First project	255.0		80.0		150.0		25.0			

It No	Component and Activity Description	Total Cost estimate (US\$ million)	% of Total Project Cost	Cost Estimate (US\$ million)- IDA	% of Total Project Cost	Cost Estimate (US\$ million)- Other Donors	% of Total Project Cost	Cost Estimate (US\$ million)- GRSS	% of Total Project Cost	Cost Estimate (US\$ million)- GOK	% of Total Project Cost
Second Project											
1	Component 1: Upgrading of priority road infrastructure	780.0									
1.1	Upgrading of the remainder section between Torit and Nadapal road,	220.0									
1.2	Road asset management contract between Torit and Nadapal	30.0									
1.3	Upgrading of the part of Nadapal – Marich Pass and Laseru- Marich Pass sections from the Eldoret to Nadapal road	530.0									
2.	Component 2: Regional Trade and Transport Facilitation	50.0									
3.0	Component 3: Support to Program Implementation and preparation of follow-on operations	5.0									
Total Second project		835.0									
Third Project											
1	Upgrading of the remaining section of the Nadapal-Eldoret road	110									
2	Support to facilitation of regional transport, trade and development facilitation	55.0									
3	Institutional development and program management	10.0									
Total Third Project		175.0									
TOTAL Estimated Program Cost		1,265.0									

Annex 3: Implementation Arrangements

AFRICA: Project Name: South Sudan- Eastern Africa Regional Transport, Trade and Development Facilitation Project (First Phase of Program) (P131426) (SS-EARTTDFP)

A. Implementation Arrangements

1. The program will be implemented by: (a) the Project Management Team (PMT) of the Ministry of Transport, Roads and Bridges (MTRB) of South Sudan, and (b) Project Implementation Unit to be established under the South Sudan Customs Services (SSCS) of the Ministry of Finance, Commerce and Economic Planning (MoFCEP), for components to be implemented in South Sudan, and PMTs in (c) the Ministry of Transport, and Infrastructure (MoTI), (d) Kenya National Highways Authority (KeNHA), and (v) Kenyan Revenue Authority (KRA) for components to be implemented in Kenya. The program at sub-regional levels will be coordinated by the Joint Inter-Ministerial Committee involving program countries and sub-regional communities (Intergovernmental Authority for Development -IGAD and East African Community-EAC). MoTI will house the Joint Inter Ministerial Committee (JIMC) and will be responsible for overall program coordination. National Corridor Management Committees (NCMCs) comprising national level key stakeholders will facilitate inter-agency coordination, and advice on the improvement of the performance of the individual entities involved in the corridor management. The NCMC will also help to enhance the engagement of the private sector and civil society, including gender advocacy groups. The Northern Corridor Transit Transport Coordination Authority (NCTTCA) will look after transit transport facilitation on the entire Juba-Eldoret corridor, until such a time, a corridor management group is established for Corridor No. 3 of the EAC, linking South Sudan, Kenya, Tanzania, other Great Lake Countries and further to Southern Africa. (See Figure 1 for illustration).

Program and Project Coordination

2. The program will mainly involve South Sudan and Kenya, and the implementation will be coordinated by a Joint Inter-Ministerial Committee (JIMC), co-chaired by the Minister of Transport, Roads of and Bridges of South Sudan and Minister of Transport and Infrastructure of Kenya . The JIMC is considered to be operational since the joint meeting of October 18, 2012, in Nairobi. It has successfully overseen the donors’ consultative meeting of January 29 and 30, 2013, held in Nairobi. The JIMC will comprise representatives of the Ministry of Finance, the ministry responsible for transport, the ministry responsible for Commerce, and Ministry of Interior from both countries, as well as the heads of the implementing entities. The JIMC will engage with the IGAD, EAC and NCTTCA on trade facilitation matters and inter-country coordination. GRSS and GoK will establish Program Oversight Committees chaired by the principal Secretaries of MTRB and MoTI, which will serve as the technical/operational arm of the JIMC. Details are presented in the country sections. The second phase will also primarily involve South Sudan and Kenya and the arrangement to be created for the first phase will continue to serve the purpose of coordination.

3. GRSS and GoK will form NCMCs, which will facilitate inter-agency coordination, and advise on the improvement of the performance of the individual entities involved in the corridor management. The NCMC will be chaired by the national institution responsible for regulating transport operations and comprise, representatives from all different stakeholders, including: (a) Customs, (b) Immigration, (c) Police, (d) Ministry of Health, (e) Ministry of Agriculture, (f) Ministry responsible for Commerce, (g) Bureau of Standards, (h) the private sector represented by transport operators, forwarders and chamber of commerce, and (i) civil society, including gender advocacy groups.

Program and Project Management

4. MoTI, in close coordination with MTRB, will host overall program coordination functions, and each implementing agency will be responsible for the implementation of its respective component or subcomponent of the project. MoTI will be responsible for overall coordination, in particular policy level issues and bilateral relations between the two ministries (MTRB and MoTI), as well as other key stakeholders, on the Kenyan side. MTRB will be responsible for overall coordination and implementation of the program, in South Sudan.

5. Project execution will be carried out by the five implementing agencies (see figure 1 for a schematic illustration), namely, MoTI, KeNHA, KRA, MTRB and MoFCEP/SSCS. The former four agencies are currently implementing Bank-financed projects and have experience on Bank-funded operations. The projects under the program will be mainstreamed into the operations of these institutions and form an integral part of their operations and investment programs.

6. The first phase of the program - “the project” will be implemented as follows:

Table 3.1 Implementation Responsibility

Item	Components	Implementing entity
SOUTH SUDAN		
(a)	Sub-component 1 (a), 1 (b); 1 (c), 1 (d), 2 (b); 3 (a), 3 (b) and Component 4	MTRB-PMT
(b)	Sub-component 2 (a)	MoFCEP/SSCS

South Sudan

7. *Program Oversight Committee (POC)*. The GRSS will establish a POC to: (a) provide strategic and policy guidance for Project implementation; (b) liaise with the MoTI; (c) review and approve annual work plans for the Project; and (d) review project financial reports. The POC will comprise the Under Secretary of the ministry responsible for transport, a representative of the Ministry of Finance, Chief Executive Officer (CEO) of the SSRA and Director General SSCS, and the Under Secretary of MTRB, who shall also be the chair of the POC. The process of establishing the POC falls under the administrative procedures of the GRSS.

8. *Program Coordinator (PC)*. To promote effective implementation, oversight and coordination of the program, GRSS has appointed the Chief Engineer of Roads of MTRB and head of the current PMT as a PC. The PC will be responsible for the overall coordination of and

reporting on the program, providing strategic oversight and preparation of program reports and acting as the secretary for the POC.

9. *Project Management Teams (PMT) of MTRB.* GRSS has designated the existing PMT of MTRB (MTRB-PMT) to manage the program. The PC will report directly to the Under Secretary of MTRB. The MTRB-PMT will consist entirely of full-time employees of MTRB and will comprise a program manager - the PC, a financial management specialist, a procurement specialist, an environmental and social specialist and will draw on technical expertise both from in-house sources and from other relevant stakeholder bodies. MTRB-PMT will have overall fiduciary responsibility for all program execution while the Directorate of Administration and Finance of MTRB will designate accountants to the PMT and will oversee Financial Management and Auditing functions. The program will provide Financial Management, Procurement, Environmental and Social Safeguards consultant experts to strengthen the capacity of the PMT. The roles and responsibilities of MTRB-PMT may be transferred to SSRA when the Authority becomes fully functional, hence its staff.

10. The responsibilities of MTRB will include the following: (a) procurement and contract management of consultancy and works contracts for the physical infrastructure related activities to be implemented under the program in South Sudan; (b) the management of the designated account; (c) financial management and reporting on the overall program; (d) ensuring the execution of the audit of the project; (e) preparation of quarterly financial and bi-annual progress reports with inputs from SSCS; and (e) oversight of the procurement and contract management activities of the other executing agencies. MTRB-PMT has experience in implementation of Bank supported road project and conversant with Bank procedures. MTRB-PMT will be the technical arm of MTRB in the functions to be performed by JIMC. The ICT will be implemented on the South Sudan side by the MoTPS. However, MoTPS has no experience in managing Bank supported projects, and thus, MTRB will be responsible for the procurement and financial management aspects of this component, while MoTPS will be handling the technical part. An MoU will be signed between MoTPS and MTRB before effectiveness to show the detailed implementation arrangement and roles and responsibilities of all parties.

11. MTRB has an Internal Audit Unit, although not well staffed. This unit will review project financial affairs as part of their regular internal audit reviews, supported by TA. The program will have a provision for financial, technical and environmental auditing.

12. SSCS will establish a PIU consisting of: a program manager, a financial management specialist, a procurement specialist, and a customs specialist and will draw on technical expertise both from in-house sources and from other relevant stakeholder bodies. As the capacity of SSCS is weak the program will provide full time Financial Management, Procurement, and Customs consultant experts to strengthen the capacity of the PIU. SSCS will support the establishment of the one-stop border post at Nadapal. The Trade Information Portal – Platform will be undertaken on the South Sudan side by the Department of Commerce of MoFCEP, which is new for managing Bank supported projects. Therefore, SSCS, with the support of the TAs to be provided by under the project, will be responsible for the procurement and financial management aspects of this component, while the Department of Commerce will be handling the technical part. SSCS will facilitate the functions of the NCMC and serve as the secretariat of the NCMC. SSCS will

perform this role with the support of MTRB. Permanent host institution for the NCMC will be determined by the committee.

13. MoFCEP on behalf of SSCS will be the recipient of the credit and will be responsible for the implementation of the trade facilitation components (sub-component 2 (a) in South Sudan. SSCS will also be responsible for: (a) the management of the designated account to be established under SSCS; (b) financial management and reporting on the trade facilitation tasks; (c) ensuring the execution of the audit of the project; and (d) preparation of quarterly financial and bi-annual progress reports.

14. The MTRB will be negotiating transit transport agreements with its Kenyan Counterpart. It will also negotiate agreements with the Port Authorities in Mombasa and Djibouti. It will also support the national transport operators association, and manage harmonization of transport operation with EAC and the NCTTCA TA. Consultancy services for transport facilitation tasks will be provided through MTRB-PMT

Kenya

15. *Program Oversight Committee.* The GoK has established the POC to (a) provide strategic and policy guidance for Project implementation; (b) liaise with the MoRB-SS; (c) review and approve annual work plans for the Project; and (d) review project financial reports. The POC will comprise the Principal Secretary (PS) of MoTI, a representative of the Ministry of Finance, CEOs of the entire project implementing entities and the Principal Secretary of MoTI, who shall also be chair of the POC. The process of establishing the POC falls under the administrative procedures of the GoK.

16. *PC:* To promote effective implementation, oversight and coordination of the project, GoK will appoint or recruit for MoTI a PC with qualifications and experience under terms of reference satisfactory to the Association. The PC will be responsible for the overall coordination of and reporting on the project, providing strategic oversight and preparation of project reports and acting as the secretary for the POC.

17. *Project Management Teams.* Each implementing agency will appoint a PMT, which will be empowered to manage the day-to-day activities of its components of the project. All the PMTs will comprise regular staff of the implementing agencies. Each PMT will be headed by a Team Leader and will comprise members with the appropriate skills and adequate experience and qualifications. The Team Leader will report directly to the CEO of KeNHA and KRA.

18. KeNHA will establish a PMT that will consist entirely of full-time employees of the Authority and will comprise a program manager, a financial management specialist, a procurement specialist, an environmental and social specialist and will draw on technical expertise both from in-house sources and from other relevant stakeholder bodies. KeNHA will be the main implementing entity of the program with overall fiduciary responsibility for program execution. The program will provide short term Financial Management, Procurement, Environmental and Social Safeguards consultant experts to support the PMT. The safeguard environmental and social responsibility will be from KeNHA's Environmental and Social Unit

who will coordinate with the PMT in order to comply with the national regulations and the Bank's Safeguards Policies. The South Sudan National Bureau of Standards (SSNBS), which was established in March 2012, will be responsible for technical aspects related to the certification of products, as well as ensuring standards of export and import trade. SSNBS will work closely with SSCS and MTRB.

19. The responsibilities of KeNHA will include the following: (a) procurement and contract management of consultancy and works contracts for the physical infrastructure related to the trade and development facilitation to be implemented under the program in South Sudan; (b) the management of the designated account; (c) financial management and reporting on the overall program; (d) ensuring the execution of the audit of the project; (e) preparation of quarterly financial and bi-annual progress reports with inputs from KRA, and MoTI; and (e) oversight of the procurement and contract management activities of the other executing agencies. KeNHA has experience in implementation of Bank supported road project and is familiar with Bank procedures. KeNHA-PMT will facilitate the NCMC functions and serve as the secretariat of the NCMC. KeNHA-PMT will be the technical arm of MoTI in the functions to be performed by the JIMC. A subsidiary agreement will be signed between Ministry of Finance of Kenya and KeNHA to pass over the credit and specify the application of the funds and the responsibilities of the implementing entity to utilize for the intended purpose. KeNHA will also sign a Project Agreement with the World Bank. Not to have too many implementing entities, KeNHA will be responsible for all fiduciary aspects of the activities to be undertaken by MoTI.

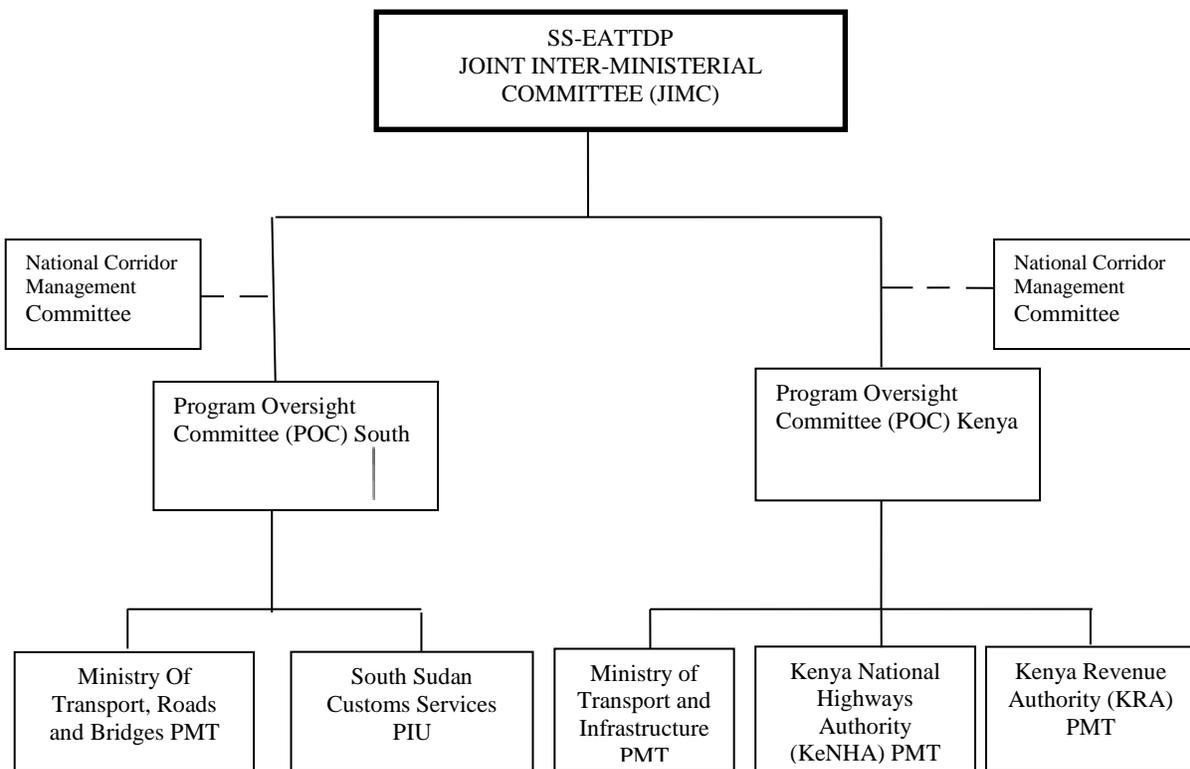
20. KeNHA has an Internal Audit Unit. This unit will review project financial affairs as part of their regular internal audit reviews, supported by TA. The program will have a provision for financial, technical and environmental auditing.

21. KRA will establish a PMT consisting of: a program manager/Team Leader, a financial management specialist, a procurement specialist, and a customs specialist and will draw on technical expertise both from in-house sources and from other relevant stakeholder bodies. KRA has been implementing part of the EARTTFP and has acquired some experience in the application of World Bank financial management and procurement guidelines and procedures. The program will have a provision for short and long term consultant TAs (Financial Management, Procurement, and Customs consultant) to strengthen the capacity of the PMT. KRA will support the establishment of the one-stop rest stop at Nadapal on the Kenyan side.

22. KRA will be the recipient of the credit for the project and will be responsible for the implementation of the trade facilitation components in general and sub-component 2 (d), in particular. KRA will also be responsible for: (a) the management of the designated account to be established under KRA; (b) financial management and reporting on the trade facilitation tasks; (c) ensuring the execution of the audit of the project; and (d) preparation of quarterly financial and bi-annual progress reports. A subsidiary agreement will be signed between Ministry of Finance of Kenya and KRA to pass over the credit and specify the application of the funds and the responsibilities of the implementing entity to utilize for the intended purpose. KRA will also sign a Project Agreement with the World Bank.

23. KRA has signed MoU with SSCS to harmonize customs procedures and enhance the capacity of the SSCS. The program will support the implementation of the MOU.
24. MoTI, in addition to the coordination and oversight responsibilities will implement the development facilitation activities. MoTI will be responsible for financial management and procurement of the activities to be implemented under the ministry.
25. The PMTs in South Sudan have been established. SSCS will enhance the capacity of its PMT by engaging consultant TAs and enable the PMT to function as a self-sufficient PIU before disbursement.

Figure 1: Implementation Arrangement of the Program



26. The first project is planned to be implemented over a period of five years. The second is expected to be initiated once the first phase is effective. The tentative effectiveness dates for the first, second and third projects will be May 2014, January 2015 and January 2018. The second and third projects will be implemented over eight years, consisting of three years for the upgrading works and five years of maintenance under an OPRC arrangement. A tentative time frame for the project preparation and implementation is presented in Table 3.2. As the program will focus on South Sudan and Kenya the second and third projects will concentrate on activities within the two countries, and thus, the same institutions implementing the first project will continue to be responsible for the execution of the tasks on the follow-on projects. Activities in other corridor countries like Ethiopia and Uganda are expected to be part of the AfDB initiative

while border crossing facilitation between Kenya and Tanzania would be addressed under another program that would further develop EAC's corridor No 3.

Table 3.2 Project Preparation and Implementation Time Frame

Project	Implementation Start Date	Project Effectiveness Date	Project End date
First Project	May 2014	September 2014	June 2019 (including one year defects liability period)
Second Project	May 2015	September 2015	June 2022 (including five years maintenance period)
Third Project	September 2017	January 2018	June 2025 (including five years maintenance period)

B. Project Stakeholder Assessment

27. There is strong support to the proposed program from the main stakeholders, including the participating countries and beneficiary groups living along the roads. Many development partners are also keen to support the program. As the program builds on the existing initiatives of the participating countries to interconnect the sub-region has achieved strong ownership of the key stakeholders. This was demonstrated by the high turnout of ministerial level officials, parliamentarian, representative of EAC, and development partners to the Nairobi, donors consultative meeting of January 29, 2013.

C. Financial Management, Disbursements and Procurement

Financial Management Arrangements

28. The World Bank requires the Recipient and the implementing agency to maintain adequate financial management arrangements to ensure that accurate and timely financial information can be provided regarding credit resources and expenditures. A financial management (FM) assessment¹⁸ is aimed at ensuring that this requirement is met. A detailed FM Capacity assessment of the SSCS was undertaken in April 2013 while that of MTRB was carried out in August 2011 and updated in April 2013. A detailed assessment of KeNHA, KRA and MoTI was also carried out/updated in May 2013.

¹⁸ FMA is conducted in accordance with OPCS guidelines titled "Assessment of Financial Management Arrangements in World Bank-Financed Projects – Guidelines to Staff" issued by the Financial Management Sector Board on October 15, 2003, and the Financial Management Manual for Bank-Financed Investment Operations issued on March 1, 2010.

29. As a regional project with five principal implementing agencies, separate PMTs for MTRB, MoTI, KeNHA, and KRA, and a PIU for SSCS will be set-up in each of the implementing agencies to provide project management services for the specific components the respective agencies will be responsible for implementing. Technical Assistance, specifically Financial Specialists will be hired with proceeds from the credit to support the PMTS/PIU on all financial management aspects and training of national staff until capacity is gradually built in the agencies to handle bank financed projects. SSCS is under the MoFCEP and until the capacity of the PIU is strengthened the PFMU under MoFCEP will be handling FM aspects of the project. In the long run, the PIU will carry out the preparation of IFRs and withdrawal applications and submit to the PFMU, and the main Unit to manage the resources will be the PFMU. Based on the current financial management systems and human resource capacity constraints and the planned mitigating measures, **the FM risk for the project components in South Sudan is assessed as substantial. The FM risk for the project components in Kenya is assessed as moderate.**

Planning and Budgeting

30. All the five implementing entities will prepare annual budgets, analyzed by quarter, based on the work plans and the procurement plans, including cash flow forecasts for each component and be submitted to the Bank, at least two months before the beginning of the project fiscal year, after the necessary approvals from the implementing entities. The budget for each quarter will reflect the detailed specifications for project activities, schedules (including procurement plan), and expenditure on project activities scheduled respectively for the quarter.

31. **Accounting Staff.** MOTI, KeNHA and KRA have adequate and qualified staff to handle the project. The three entities are well-established and have experience in managing Bank funded projects.

32. For Southern Sudan, there are capacity challenges in financial management in the two implementing agencies in South Sudan. The financial management capacity of MRB of South Sudan and SSCS is at its infancy and provision of technical assistance is being recommended for support to FM during the implementation of the project.

33. **Information Systems.** All project financial management records will be maintained using a computerized financial management system and necessary training carried out for the accounting staff. In Kenya, only KeNHA has a computerized accounting system for projects. Though KRA uses SCALA to manage its accounting operations, it maintains the project accounts in Excel. MOTI is also using Excel for projects but with the re-engineered IFMIS and the new Chart of Accounts ministries are enabled to generate project accounts directly from the re-engineered IFMIS upon configuring the project in IFMIS. All transactions should be recorded and accounted for.

Internal Controls and Internal Audit

34. **Internal Audit.** KeNHA, KRA and MoTI all have a strong internal audit function with audit committees in place to address issues raised by both internal and external audit reports but the audit committee of MoTI is ineffective due to factors like membership (drawn from staff),

regularity of meetings, follow up of audit findings, and ownership of the Committees by the line ministries. This is expected to change with the new Public Financial Management Act, 2012 whose regulations are currently being drafted. For South Sudan, the Internal Audit Directorate in the MoFEP will be responsible for the internal audit of the project. Internal audit findings will be reviewed and followed up by the Program Oversight Committees.

35. FM Manuals. KeNHA uses both the GoK procedures and own developed procedures entitled 'Financial policies, Guidelines & Procedures Manual'. MOTI uses GoK procedures titled; Government Financial Regulations and Procedures. KRA uses the FM manual titled 'Finance Procedures Manual'. These manuals are considered adequate. A FM Procedures manual has been prepared for South Sudan implementing entities.

36. A Project Implementation Manual is being prepared and incorporates acceptable Financial Management procedures including compliance with fiduciary standards and reliability of the FM systems

37. Fixed Assets and Contracts Register: Fixed assets register relating to the project will be prepared and updated regularly using the information from the Cash Book. All new assets will be reflected in the register and a physical verification of fixed assets is carried out at least annually. The Fixed Assets Register will reflect details of suppliers, description and location of goods, original cost, disposal of assets, asset reference (identification) number; Serial or registration number; date of purchase and price (cost) and/or valuation, additions to the asset; condition of asset, useful life and residual value; disposal.

38. A Contracts Register will be maintained in respect of all contracts with consultants, contractors and suppliers. The PMT/PIU will prepare Contract Status Reports quarterly as part of the IFRs. Control procedures over fixed assets and contracts management will be the responsibility of the PMTs/PIUs.

Financial Reporting and Monitoring

39. The respective PMTs/PIUs will be responsible for the financial reporting on the components they will be responsible for. The PMT/PIU will have the full responsibility for financial management, including managing the designated account, preparing the withdrawal applications for necessary approval, management of the operational bank accounts, accounting and financial reporting. The Project Financial Specialist will support the PMT/PIU in the maintenance of accounting system and the appropriate preparation of the project's periodic financial reports during project implementation. Quarterly IFR will be prepared by the Project Accountants/Financial Specialists for the purpose of monitoring the implementation of the project and submitted to the line ministries, Ministry of Finance/ National Treasury, and the World Bank. This includes a Statement of Sources and Uses of funds by main expenditure classifications; beginning and ending cash balances of the project; and supporting schedules comparing actual and planned expenditures. IFRs will be submitted to the Bank not later than 45 days after the end of the quarter. The format and content of the IFRs were discussed and agreed during negotiations. MoTI and MTRB- PMT will be responsible for overall financial reporting in Kenya and South Sudan, respectively.

40. Project Annual Financial Statements will be prepared by the PMT/PIU in accordance with accounting standards acceptable to the Bank and will include:

- (a) Statement of Sources and Uses of funds (by major Component/ Activity);
- (b) Statement of Cash Position for Project Funds from all sources;
- (c) Statements reconciling the balances on the various bank accounts (including the Project Account) to the bank balances shown on the Statement of Sources and Uses of funds;
- (d) Statement of Expenditure (SOE) Withdrawal Schedules listing individual withdrawal applications relating to disbursements by the SOE based method, by reference number, date and amount;
- (e) Notes to the Financial Statements

41. The Annual financial statements will be submitted to the auditors within three months after the end of the financial year to facilitate the conduct of annual audits of the project.

External Auditing

42. The National Audit Chamber of South Sudan (NAC) and the office of the Auditor General in Kenya (KENAO) have the constitutional responsibility for carrying out all audits of government entities and projects in their respective country and would be responsible for project audit. For South Sudan, the project audit would be carried out by the audit chamber with support from an External Audit Agent (EAA). The Audit Terms of Reference were agreed by negotiations. The audit would be in conformity with the Bank's audit requirements and in accordance with internationally recognized auditing standards. The auditor will express an opinion on the Financial Statements in compliance with International Standards on Auditing (ISA) and also prepare a Management Letter giving observations and comments, and providing recommendations for improvements in accounting records, systems, controls and compliance with financial covenants in the Credit Agreement. External audits will be conducted annually and the audit report and management letter will be submitted to the Bank within six months after the end of the financial year audited. In addition, the project will conduct technical audit.

43. KeNHA is currently implementing the NCTIP, EATTFP, the KTSSP and the NUTRIP. The former Ministry of Roads now MoTI is implementing the KTSSP and NUTRIP. KRA is currently implementing the EATTFP. There are no overdue audit reports.

44. Similarly, the Bank-assisted South Sudan Rural Roads Project implemented by the MTRB was effective in August 2012. An FM mission was carried out in April 2013 which indicated that though there are some internal control issues that need addressing, the FM systems in place is adequate. The FM risk rating is moderate and FM assessment is moderately satisfactory.

45. The Bank encourages the disclosure of the project audit reports to the public in the spirit of being transparent.

Fraud and Corruption

46. Possibility of circumventing the internal control system with colluding practices as bribes, abuse of administrative positions, mis-procurement, etc. is a critical issue and may include: (a) late submission of supporting documents; (b) poor filing of records; (c) lack of system integration; (d) lack of budget discipline; (e) unauthorized commitment to suppliers, bypassing budget and expenses vetting procedures; (f) unsecured safekeeping and transportation of funds. These are mitigated as follows: (i) specific aspects on corruption auditing would be included in the external audit TOR; (ii) the internal auditor would report directly to the MTRB and MoTI as well as present quarterly reports to the Bank and to the Project Oversight Committee (POC); (iii) KeNHA, KRA and MoTI have FM procedures manuals and these will be adopted for the project, while the finalized FM Procedures manual for South Sudan, which is under finalization will be applied for the project. The FM procedures manuals will be part of the PIM and will be approved before project effectiveness; (iv) strong FM arrangements (including qualified Project Accountant recruited under TORs acceptable to IDA, quarterly IFR including budget execution and monitoring; (v) measures to improve transparency such as providing information on the project status to the public, and involvement of the MTRB and MoTI in the project are built into the project design.

47. All the implementing entities in Kenya have existing policies on Governance and Anti-corruption. In addition, the new constitution has devoted a chapter on governance issues. South Sudan has also prepared anti-corruption strategy. Staff and stakeholders in these entities are guided by these policies in combating corruption and unethical business conduct. Further, the project has initiated a GRM.

Funds Flow, Banking and Disbursement

48. ***Banking Arrangement.*** The National Treasury (Kenya) will be required to open three designated accounts denominated in United States Dollars for MOTI, KRA and KenHA. MOTI, KRA and KenHA will each open a Project Account denominated in Kenya Shillings (KES). Both the USD and KES accounts will be opened either in Central Bank of Kenya or in commercial banks acceptable to IDA based in Kenya.

49. The MoFEP-SS will be required to open one Designated account denominated in United States Dollars for MTRB and SSCS. The two implementing entities, MTRB and SSCS will each open Project Accounts denominated in USD and South Sudan Pound (SSP). Both the USD and SSP accounts will be opened in commercial banks acceptable to IDA in South Sudan.

50. The IDA credit for the first project is only for South Sudan and MoFCEP will open one Designated Account. The ceiling for the Designated Account will be determined by the Disbursement Letter. The arrangement for a Designated Account for PPA to Kenya will be determined by the PPA Agreement and the Disbursement Letter for the PPA.

51. Details of these accounts once opened and the signatories are to be submitted to the Bank to facilitate disbursements once the credit is declared effective. Transfer from IDA credit will be made into the Designated Account to make payments in US dollars for SS. In Kenya, since no

payment can be made from the US account, transfers will also be made from the Designated Account to the KES program account to finance transactions in KES.

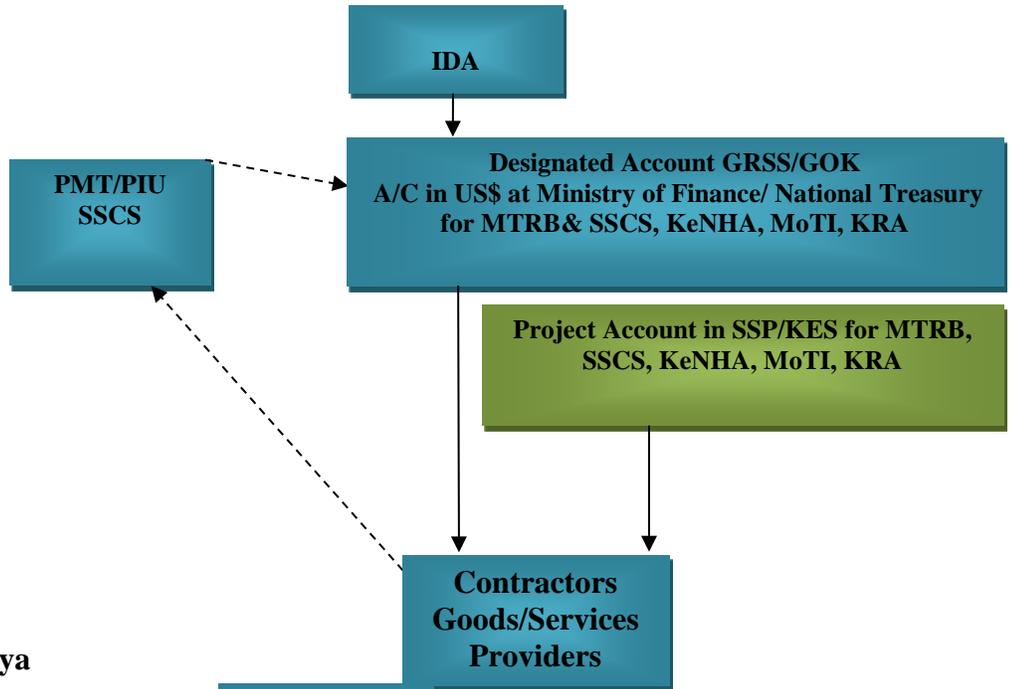
52. The Recipient shall maintain, until the completion of the Project, in a commercial bank, a separate account under terms and conditions acceptable to the Association, (“Counterpart Fund Account”), into which it shall deposit from time to time from its own resources, its counterpart contribution corresponding to its share of the cost of implementation of its respective part of the Project for each quarter.

53. The Recipient shall not later than 60 days after the Effective Date, deposit into the Counterpart Fund Account an initial advance corresponding to its share of the cost of implementation of its respective part of the Project for the first quarter of the Project implementation period, and thereafter replenish the Counterpart Fund Account on a quarterly basis, taking into account the balance of funds in the Counterpart Fund Account and projected expenditures for the following quarter.

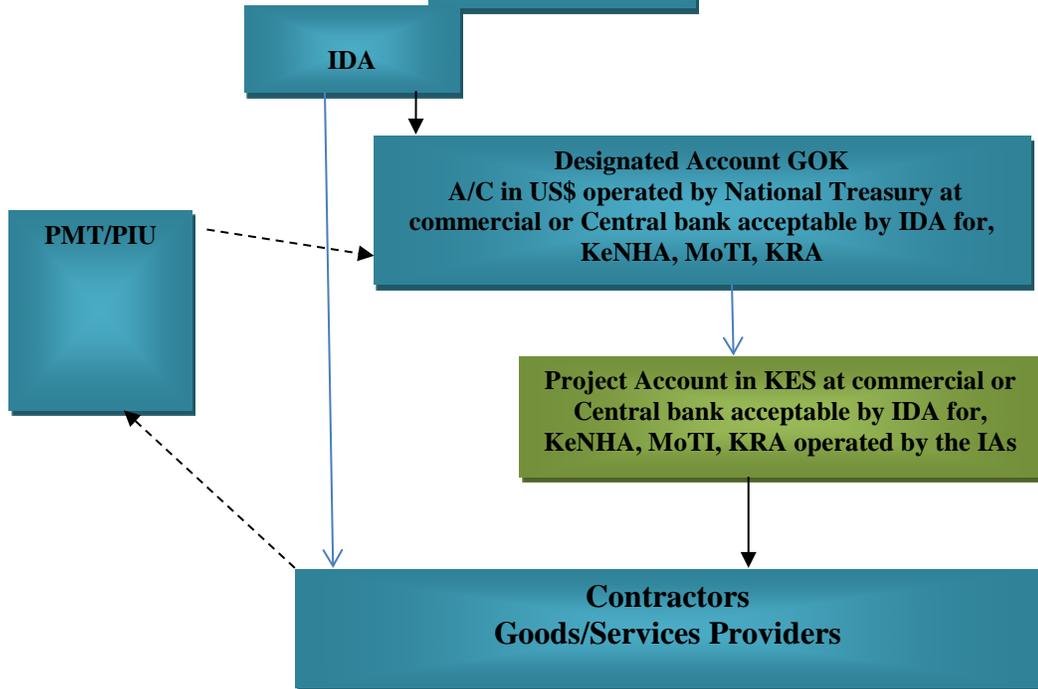
54. The Recipient shall ensure that funds deposited into the Counterpart Fund Account shall be used exclusively to finance expenditures under its respective Parts of the Project.

Figure 2: Flow of Funds for the Program

a) South Sudan



b) Kenya



Documents flow /instruction - - - - ->
 Funds flow - - - - ->

The funds flow process will require that:

- (a) the PIUs carry out due diligence on the activities of the project in accordance with criteria set under the credit and contained in the Credit/Financing Agreement;
- (b) the PIUs determine the amount required for its activities; it checks the amount of funds required against the planned activities for which transfers are being requested, and make recommendations for payment. The documentation to back up the request will include their bank account details, the project document as well as other relevant information;

55. Disbursement: In Kenya, the program will use the transaction based Statement of Expenditure (SOE) disbursement method. The Bank will initially give an initial advance with a ceiling as set out in the Disbursement Letter. Subsequently, the implementing entities will submit their SOE and the Bank will process the withdrawal applications and advance funds into the Designated Account. Funds will then be transferred from the Designated Account (DA) at National Treasury (formerly Ministry of Finance) of Kenya into the project accounts of MoTI, KRA and KeNHA and payments in relation to project eligible expenditures can be made from these accounts. Each of these implementing entities will be submitting their own withdrawal application to the Bank through the National Treasury. This arrangement is a framework for the disbursement arrangement under the program and will apply to Kenya for the second project, as the PPA for Kenya will have its own separate arrangement to be determined by the PPA Agreement and the Disbursement Letter for the PPA.

56. For South Sudan, the PMT/PIU shall submit disbursement requests to the Bank based on SOE. Documentation supporting all expenditures claimed against SOE's will be retained by the PMT/PIU, and will be available for review when requested by the Bank supervision missions and project internal and external auditors. The initial withdrawal application shall include an amount required to finance Eligible Expenditures with a ceiling set out in the disbursement letter. All disbursements will be channelled through the Designated Account. GRSS will contribute its share of the project costs as advanced directly into the project account in United States Dollars.

57. Replenishment of the DA will follow World Bank procedures. Requests for replenishment of the DA will be submitted on a monthly basis or as required. The movements in the DA will be audited during the annual audit of the project.

58. Apart from the advance method of disbursement/payment described above, reimbursements can be requested from the Bank for eligible costs incurred by the implementing agency. The third method is the direct payment that may be used for payments to contractors or service providers upon recommendations of their satisfactory performance by the program authorized officials. Payments may also be made to the commercial bank for expenditures against IDA special commitments covering the commercial bank's Letter of Credit. All these options are detailed in the World Bank disbursement guidelines for projects dated May 2006.

Statement of expenditures (SOE)

59. During implementation, necessary supporting documents will be sent to the Bank in connection with contract that are above the prior review threshold, except for expenditures under Contracts with an estimated value of: (a) US\$ 300,000 or less for works. (b) US\$ 200,000 for goods; (c) US\$ 100,000 or less for Consulting Firms; (d) US\$ 50,000 or less for Individual Consultants, and training, which will be claimed on the basis of SOEs. The documentation supporting expenditures will be retained at Project Implementation Unit and will be readily accessible for review by the external auditors and Bank supervision missions.

60. If ineligible expenditures are found to have been made from the designated and/or operating bank accounts, the implementing entities will be obligated to refund the same. If the designated account remains inactive for more than six months, the implementing entities may be requested to refund to IDA amounts advanced to the designated account.

61. All disbursements are subject to the conditions of the credit/Financing Agreement and the procedures defined in the Disbursement Letter.

62. Detailed disbursement procedures will be documented in the PIM.

Conclusion and Supervision Plan

63. The project's financial management arrangements requires improvements in order for the systems to be adequate to provide, with reasonable assurance, accurate and timely information on the project's status as required by IDA. The FM risk is Moderate for KeNHA, MoTI and KRA, requiring Bank supervision once a year. The FM risk is Substantial for MTRB and SSCS, requiring Bank supervision twice a year. FM supervision will be consistent with a risk-based approach and will involve a collaborative approach with the Task Team, including Financial Controllers and procurement staff. This would cover all aspects of FM. Additional supervision activities will include desk review of quarterly IFRs and internal audit reports, audited Financial Statements and Management Letters as well as timely follow up of issues arising, and updating the financial management rating in the Implementation Status report (ISR) and the Portfolio and Risk Management (PRIMA) System.

64. Financial Management Action Plan

Table 3.3: Financial Management Action Plan

	Action	Responsibility	Due Date
	Assign accounting staff in MTRB to work with PMT and engage required technical assistance (Project Financial Specialist and project staff)	MTRB/PMT	By Negotiations (completed)
	Establish a PIU in South Sudan Customs Service and recruit Project personnel including the Financial Management Specialist	MOFCEP/SSCS	By Negotiations (completed) FM consultant by Disbursement
	Equip the PIU (procure Desktops) and install Accounting System including training of staff	MTRB/PMT & PIU/SSCS	6 Months after effectiveness

	Action	Responsibility	Due Date
	Update PFMU Financial Procedures Manual	PMT/PFMU	During Implementation
	Support Audit Chamber to engage External Audit Agent to carry out Project Technical and Financial Audit	PMT/PIU/Audit Chamber	During Implementation
	MoTI and KRA to change from manual to a computerised accounting system in a manner satisfactory to the IDA	MoTI and KRA	Second project
	Agree on the format and content of the IFR	MTRB/SSCS	Completed
	Agree on the audit terms of reference	MTRB/SSCS	Completed

65. Summary of allocation of credit proceeds for South Sudan is presented in table 3.4

Table 3.4: Allocation of Credit Proceeds - South Sudan

Category	Amount of the credit allocate (in SDR)	Percentage of expenditures to be financed (inclusive of taxes)
1. Goods, works, non-consulting services, consultants' services and Training for Part 1(b) of the Project	29,600,000	91 % for sub component 1(b) i of the project and 100% for subcomponent 1 (b) ii of the project
2. Goods, works, non-consulting services, consultants' services, Training and Operating Costs for Part (2)(a) of the Project	4,500,000	100%
3. Goods, works, non-consulting services, consultants' services, Training and Operating Costs for Parts 2(b) and (3) of the Project	7,200,000	100%
4. Goods, works, non-consulting services, consultants' services, Training and Operating Costs for Parts(4) of the Project	9,500,000	100%
5. Refund of Preparation Advance	1,400,000	Amount payable pursuant to Section 2.07 of the General Conditions
Total	52,200,000	

D. Procurement

66. MTRB and KeNHA will be responsible for the procurement of consultancy and works contracts of the road upgrading, and social infrastructure development and Road Safety along the corridor. SCS and KRA will be responsible for the procurement of consultancy services related to the trade and development facilitation listed under sub-component 2 (a) of South Sudan and 2 (d) of Kenya, respectively. MoTI will be responsible for studies and implementation of the activities related to export processing zone development. MTRB has acquired some experience in procurement. In addition, the institutional development component of the proposed project is also expected to further enhance transparency and MTRB's procurement capacity. MoTI and KeNHA have vast experience of managing procurement of Bank financed projects and are currently implementing four ongoing Bank-funded projects. KRA has also acquired some experience in managing Bank financed projects in the past and is currently involved in part

implementation of one of the Bank-funded projects. However, SSCS is new for managing Bank supported projects and hence the guidelines and procedures. The project has adequate provision for TA and SSCS as well as MTRB, will engage a Procurement Consultant before effectiveness.

67. The findings of the procurement capacity and risk assessment of the five implementing entities and national level procurement laws and practices are summarized as follows:

68. Bank procurement experience in South Sudan has shown that: (a) significant delays are experienced in procurement processing, with major part of the time spent on preparation of tender specifications, Terms of Reference (ToRs) and evaluation; (b) market for goods is nascent, cost of goods and services is high; and (c) there is a six month window of opportunity during the dry season within which most of the country is accessible. These experiences are being factored in the design of procurement arrangements.

69. In South Sudan, public procurement is governed by the Interim Public Procurement and Disposal Regulations (IPPDR), 2006. The Government is preparing a new Procurement Law which is at Draft Bill stage. As for the IPPDR, the draft Bill designates Ministry of Finance as the only procuring entity and all other Government Ministries, Departments and Agencies would have to apply to be designated as procuring entities by the Minister of Finance. Thus, MTRB, which is yet to be designated as procuring entity needs to get this status as soon as possible. The MTRB indicated that they are working in this direction and expect to get designated as procuring entity in the coming months.

70. In Kenya public procurement is governed by the Public Procurement and Disposal Act of 2005 (PPDA) and the Public Procurement and Disposal Regulations (PPDR) of 2006. Under the PPDA, the Public Procurement Oversight Authority (PPOA) has been established in addition to the Directorate of Public Procurement (DPP) in the National Treasury. The PPDA sets out the rules and procedures of public procurement and provides a mechanism for enforcement of the law. Some provisions of PPDA are however not fully consistent with the World Bank procurement procedures, and therefore these may not be applied for the implementation of the project without modification.

71. The three project implementing entities in Kenya are well established institutions and have experience in management of procurement under bank financed projects. With TA inputs to strengthen the procurement capacity, the institutions could manage the project with minimal risk. The transport sector is also increasingly moving toward open tender for civil works contracts to combat collusion challenges and the project will be informed by the results of this approach.

72. **Risk Assessment:** The Bank team made an assessment of MTRB and SSCS. The PMT under MTRB has gained some experience in procurement while implementing projects of MDTF-SS and South Sudan Transition Trust Fund. The three engineers who are working as procurement staff in the PMT have built up some capacity of procurement. However, they will not be able to independently handle the procurement under this program. Thus, technical assistance by the contracted procurement consultant shall be required under the program. As regards to SSCS, it has a procurement unit staffed by a director, deputy director and three assistants. However, it has very little prior experience of handling procurement. This unit will

also need technical assistance by a qualified contracted procurement specialist. Further, the unit will also be assisted and guided by the PMT, which will have the overall responsibility of fiduciary compliance of the program.

73. In Kenya the Bank team carried out an assessment of MoTI, KeNHA and KRA the three institutions responsible for project implementation under the second project. Each of the three implementing agencies has constituted a PMT which reports to the Accounting Officer/CEO of their respective agencies. The PMT staff includes among other professional and technical staff a PMT leader and a procurement officer. MoTI and KeNHA are currently implementing four ongoing IDA-funded projects namely: the NCTIP, EATTFP, KTSSP and NUTRIP through the same PMTs. KRA on the other hand is partly involved in the implementation of the EATTFP and its technical staff has also gained vast experience in project implementation under past Bank funded projects.

74. The assessment reviewed the organizational structure for implementing the project and the interaction between the project’s staff responsible for procurement duties and management of their respective agencies. Being cognizant of the experience gained by the implementing agencies from the ongoing projects, and deployment of the same PMTs of the ongoing projects for the implementation of the proposed project, the overall project risk for procurement is considered “Moderate” for Kenya.

75. The key issues and risks concerning procurement for implementation of the project that were identified and which require enhancement include systemic weaknesses in the areas of: (a) accountability of procurement decisions; (b) procurement record keeping; (c) capacity of procurement staff; (d) procurement planning; (e) procurement process; and (g) procurement oversight.

76. The overall project risk for procurement is Moderate for Kenya.

Table 3.5: Risk Mitigation Action Plan for Kenya

Action	Responsible Institution	Due Date
(a) Preparation of a Procurement Reference Guide that; (i) defines the roles and responsibilities of all staff involved in project implementation; (ii) sets out sequence and timelines for completion of procurement process decisions; (iii) establishes minimum service standards for processing of payments	MoTI; KeNHA and KRA	Second project
(b) The preparation of Work plans and procurement planning process to be aligned with the budgeting process	MoTI; KeNHA and KRA	Second project
(c) Establish effective monitoring and tracking systems for; (i) Procurement Plan Implementation; and (ii) payments to contractors and other service providers	MoTI; KeNHA and KRA	Second project
(d) Establish a well-structured procurement filing and records management system	MoTI; KeNHA and KRA	Second project
(e) Develop and agree with the Bank on a procurement training and capacity building	MoTI; KeNHA; KRA and Bank	Second project

Action	Responsible Institution	Due Date
plan for the PIT staff		
(f) In consultation with the PPOA and KENAO, establish a mutually agreeable joint procurement audit plan	MoTI; KeNHA; KRA; The National Treasury	Second project

77. The key issues and risks concerning procurement for implementation of the project that were identified for South Sudan and which require mitigation measures are in the areas of: (a) accountability of procurement decisions and clarity of procurement processes; (b) capacity of procurement staff (c) procurement record keeping;

78. The overall project risk for procurement is **High for South Sudan**.

Table 3.6: Risk Mitigation Action Plan for South Sudan

Action	Responsible Institution	Due Date
(a) The Project Implementation Manual (PIM) will have chapter on procurement which will include accountability of procurement decisions and procurement processes.	MTRB and SSCS	Completed
(b) MTRB as well as SSCS will hire experienced procurement consultant to execute the procurement process, as well as provide on-the-job training to the counterpart staff - June 2015.	MTRB and SSCS	During Implementation
(c) Develop and agree with the Bank on a procurement training and capacity building plan for the MTRB and SSCS staff – January 2015	MTRB, SSCS and Bank	During Implementation
(d) Establish a well-structured procurement filing and records management system – December 2015.	MTRB and SSCS	During Implementation

79. Procurement under the program (SS-EARTTDFP) to be funded by the World Bank will be undertaken in accordance with the following Guidelines of the World Bank: “*Procurement of Goods, Works and Non Consulting Services under IBRD Loans and IDA Credits and Grants by World Bank Borrowers*” dated January 2011 (Procurement Guidelines); “*Guidelines: Selection and Employment of Consultants under IBRD Loans and IDA Credits and Grants by World Bank Borrowers*” dated January 2011 (Consultant Guidelines); “*Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants*”, dated October 15, 2006 and revised in January 2011; and the provisions stipulated in the Financing Agreement. National Competitive Bidding (NCB) shall be in accordance with procedures acceptable to the Bank.

80. A first General Procurement Notice (GPN) for the project was published in the UNDB online website on March 7, 2013. The GPN will be updated as and when considered necessary for any outstanding International Competitive Bidding (ICB) and large consultancy services contracts, as appropriate. Specific Procurement Notices (SPN) for goods and works to be procured under ICB and NCB and for consultant services will be advertised in at least one national newspaper of wide circulation and also internationally for ICB contracts. Whenever

needed, training will be offered to enhance the skills of the PMT/PIU procurement staff. Procurement plans for the first 18 months shall be prepared and will be updated at least annually. In addition, a project implementation manual was prepared.

81. **Frequency of Procurement Supervision:** In addition to the prior review supervision to be carried out from Bank offices, the capacity assessment of the Implementing Agency recommends one supervision mission every twelve months to visit the field to carry out post review of procurement actions.

82. **Details of the Procurement Arrangements Involving International Competitive Bidding and Other Methods.**

83. **Goods, Works and Non Consulting Services**

84. **List of contract packages to be procured following ICB/Direct Contracting and Other Methods**

Table 3.7: List of Contract Packages

1	2	3	4	5	6	7	8	9
Ref. No.	Contract (Description)	Estimated Cost (US\$ million)	Procurement Method	Prequalification (yes/no)	Domestic Preference (yes/no)	Review by Bank (Prior / Post)	Expected Bid-Opening Date	Implementing Agency
South Sudan								
SS-KR 1.1	Upgrading of Kapoeta – Narus road and construction of bridges between Kapoeta and Nadapal (Design and build)	47	ICB	NA	NA	Prior	Jan. 2015	MTRB
SS-KR 1.2	Maintenance and repair of Torit – Kapoeta and Narus- Nadapal road	1.82	NCB	NA	NA	Post	May 2015	MTRB
SS-KR 1.3	Installation of fiber optic (design & build)	13.0	ICB	NA	NA	Prior	Sept. 2015	MTRB

85. List of consulting assignments with short-list of international firms and other selection methods.

Table 3.8: List of Consulting Assignments

1	2	3	4	5	6	7
Ref. No.	Description of Assignment	Estimated Cost (US\$ million)	Selection Method	Review by Bank (Prior /Post)	Expected Proposals Submission Date	Implementing Agency
South Sudan						
SS-KR 1.4	Monitoring and supervision services for the upgrading of	3.00	QCBS	Prior	Jan. 2015	MTRB

	Kapoeta – Narus road and construction of bridges between Kapoeta and Nadapal (Design and build)					
SS-K R 1.5	Monitoring and supervision services for maintenance and repair of Torit – Kapoeta and Narus Nadapal road	0.18	CQS	Post	Apr. 2015	MTRB
ss-KR 1.6	Monitoring and supervision services for fiber optic installation	1.5	CQBS	Prior	Sep 2014	MTRB
SS-K R 1.7	Transport, trade and development study	2.00	QCBS	Prior	Sept. 2014	MTRB
SS-K R 1.8	Corridor performance monitoring (Juba-Nadapal)	0.50	QCBS	Prior	Dec. 2014	MTRB
SS-K R 1.9	Customs procedures harmonization	0.50	QCBS	Prior	Sept. 2014	SSCS
SS-K R 1.10	TA to modernization of SSCS	4.00	QCBS	Prior	March. 2015	SSCS
SS-KR 1.11	Integrated border management	1.00	TBD	TBD	Sep. 2015	SSCS
SS-K R 1.12	Trade information platform/portal	1.50	TBD	TBD	Sept. 2015	SSCS
SS-KR1.13	Social services needs assessment & Road Safety audit (Juba – Nadapal)	0.50	QCBS	Prior	Jun. 2015	MTRB
SS-KR1.14	Studies for export processing zones and storage facilities development & certification of exports and simplifying import-export in South Sudan	0.80	QCBS	Prior	Jun. 2015	MTRB
SS-KR1.15	ESIA for services at rest stops, export processing zones and storage facilities development	0.20	CQS	Prior	Dec. 2014	MTRB
SS-KR1.16	Social services needs assessment & Road Safety audit (Nadapal-Eldoret)	1.0	QCBS	Prior	July 2015	MTRB
SS-KR1.17	Transport sector governance and anti-corruption strategy preparation	1.2	QCBS	Prior	Dec. 2014	MTRB
SS-KR1.18	FM, procurement, Social,	1.60	Individuals	TBD	Jan. 2015	MTRB and SSCS

	environmental, project management specialist for MTRB-PMT and SCS					
SS-KR1.19	Financial and Technical Audits	0.70	CQS	TBD	TBD	MTRB
SS-KR1.20	Independent safeguards management firm	2.00	QCBS	Prior	Jan. 2015	MTRB

86. **Shortlists composed entirely of national consultants.** Short-lists for consultancy services and engineering and works supervision for contracts estimated to be equal to or less than US\$200,000 for Kenya, and US\$200,000 equivalent or less per contract for engineering and works supervision contracts and US\$100,000 or less for all other; consultancy assignments for South Sudan may be composed entirely of national consultants in accordance with the provisions of paragraph 2.7 of the Consultant Guidelines.

87. **Advertising.** Consultancy services for contracts estimated to be more than US\$300,000 equivalent per contract shall be advertised in the UNDB on-line in addition to advertising in the national newspaper of wide circulation and/or regional newspaper in accordance with the provisions of paragraph 2.5 of the Consultant Guidelines.

Thresholds for Procurement Methods and Prior Review

88. Thresholds for procurement methods and for prior review are presented in the table below:

Table 3.9: Thresholds for Procurement Methods

Expenditure Category	Contract Value Threshold (US\$)	Procurement/ Selection Method	Contracts Subject to Prior Review
Works	>5,000,000 (For Kenya) >5,000,000 (For South Sudan)	ICB	All
	<5,000,000 (For Kenya) <5,000,000 (For South Sudan)	NCB	None (Post review) unless specified in the PP
	<200,000	Shopping	None (Post review)
	All values	Direct Contracting	All
Goods	>500,000	ICB	All
	<500,000	NCB	None (Post review) unless specified in the PP
	<100,000	Shopping	None (Post review)
	All values	Direct Contracting	All
Consulting Services -	> 300,000	QCBS/ Other (QBS/FBS/ LCS)	All

Firms¹	$\leq 300,000 \geq 200,000$	CQS/ Other (QCBS/QBS/ FBS/LCS)	All
	< 200,000	CQS/ Other (QCBS/QBS/ FBS/LCS)	None (Post Review)
	All values	SSS	All
Consulting Services – Individuals (IC)	>100,000	IC – Qualification	All
	<100,000	IC – Qualification	None (Post review)
	All Values	IC – SSS	All

Monitoring and Evaluation

89. The program has designed and includes a set of monitoring indicators that are intended to work at both the national and corridor levels, in line with the Results Framework. The indicators would be replicated in subsequent phases to allow the effective measurement of the outcome and results of the project(s) and aggregated to provide results for the program. These indicators together with the monitoring and evaluation arrangements are detailed in Annex 1. The indicators will be collected, monitored, reported and disseminated by/with the support of the JIMC according to the methodology designed during the preparation of Phase 1. Data will be disaggregated by gender.

90. The overall responsibility for monitoring and evaluation of outcomes of the program will formally lie with MTRB and KeNHA. The two institutions will prepare half yearly progress reports that will include contributions from customs, and forward these to IDA, via the JMC, within one month from the end of the reporting period. These reports will detail physical progress of the various sub-projects and the project monitoring indicators as per the project's results framework (see Annex 1). The reports will also contain a summary of the status of the implementation of the ESMPs and RAPs for the improvement of the physical infrastructure.

Grievance Redressing Mechanism

91. A formal GRM for development projects is not yet established in both South Sudan and Kenya. This will be addressed as the governance improvement initiatives mature and GRM that meets international good practices prevail. Currently, the Anti-corruption Commission and Grievance Commission partly deal with such issues in South Sudan, and Kenya has established a new system that addresses political level complaints after the recent election, in April 2013, and this may expand into development matters. At times, citizens air their concerns and grievances through local administration and the media, but often responses are not delivered. Depending on the case, citizens seldom appeal to the justice system.

92. The project may be faced with issues related to quality of work, safety, environmental and social issues, as well as complaints on contract awards. Such issues are proposed to be directed to the Project Oversight Committees (POCs) to be established for the implementation of this specific project in South Sudan and Kenya. Residents in the project area and road users could address their concerns to the POCs through local administration and state ministries of physical infrastructure in South Sudan, as well as, County and Regional level administrations in

Kenya. Complaints related to contract awards could be directly submitted to the POCs, which shall be dealt with as per the provision of the procurement regulation of the respective country, and written responses shall be delivered to the griever and the JIMC. Complaints regarding matters related to corruption may also directly be made to the Anti-corruption Commissions. Complaints could also be reported to the Grievance Commissions. Appeals could also be made to the justice system. Works and consultancy services contracts have an inbuilt mechanism for mediation and dispute resolution and all cases have to be dealt with in accordance with the contract provisions. Social and environmental issues, including resettlement and compensation related complaints, will be handled through a Grievance Redress Committee, which will send reports to the POCs through local administrations. Such complaints could also be reported to Grievance bodies in the respective country, including customary courts. Appeals could also be made through the court system in each country.

93. In addition to the indicators included in the Results Framework the project will monitor the following Grievance Redressing indicators: (a) number of grievances registered; (b) percentage of grievances resolved; (c) percentage of grievances redressed within stipulated time period; (d) time required to resolve complaints (disaggregated by different types of grievances); (e) percentage of complainants satisfied with response and grievance redress process; (f) percentage of project beneficiaries that have access to the GRM.

94. The implementing institutions may do the following to facilitate the GRM: (a) Assign a phone/fax number for receiving feedback and advertising this in all project communication prominently; (b) Set up easy-to-access suggestion/grievance boxes in villages close to work sites; (c) Designate local volunteer grievance redress coordinators to facilitate grievance receipt; (d) record keeping, tracking and communication; (e) Assign grievance resolution responsibilities to existing staff (preferably specialists mapped to the M&E Unit); (f) Devise a low-cost grievance tracking mechanism; and (g) Set time frames for grievance resolution, according to the type of grievance.

Sustainability

95. The program is expected to address sustainability issues related to the infrastructure investments and facilitation measures, through enhanced ownership and establishing trade facilitation groups. The road upgrading will be implemented through OPRC arrangement to ensure that maintenance of the investment is guaranteed for the initial five to seven years. Further, the program would urge the two governments to put in place appropriate asset management system that will facilitate the undertaking of maintenance along the corridor through a long term Output and Performance Based Maintenance contracts. The third project of the program would support this arrangement. Infrastructure improvement will be complemented by long term maintenance. The road maintenance fund in Kenya will also help to secure funds for maintenance. The road financing study to be carried out by South Sudan is also expected to suggest maintenance funding sources. The social infrastructure will be mainstreamed within the domestic institutional framework, but will evolve towards offering fee-based services.

Role of Partners

96. The potential development partners that would support the infrastructure upgrading and trade facilitation measures along the Juba – Eldoret corridor, include: the AfDB, China EXIM Bank, European Union (EU), European Investment Bank (EIB), JICA, and the World Bank. The USAID has supported the South Sudan corridors diagnostics study, and is active in trade facilitation and promoting agricultural development. Trade Mark East Africa could also be potential partners in the promotion of the trade facilitation measures. In addition, AfDB has the intention of promoting the development of the Kampala-Juba-Addis Ababa corridor, which calls for forging partnership, as the corridor shares major part of the Juba-Nadapal road. The governments of South Sudan and Kenya held a donors’ consultative meeting on January 29 and 30, 2013 and discussed the road map for development partners’ engagement. On the ICT side, a number of donor coordination meetings have been held, most recently on November 13, 2012. A detailed breakdown of the initiatives of other donors is provided in Annex 8.

Annex 4: Operational Risk Assessment Framework (ORAF)

AFRICA: Project Name: South Sudan- Eastern Africa Regional Transport, Trade and Development Facilitation Project (First Phase of Program) (P131426)

Risks							
Project Stakeholder Risks							
Stakeholder Risk	Rating	Substantial					
Risk Description: (a) Connecting all participating countries: Competition for funding among the alternative corridors.	Risk Management: (a) Continuous consultation among the participating countries on prioritization of upgrading of the road corridors in the sub-region and development of alternative routes; (b) Prioritize transit corridors based on the objective of reduction of non-tariff barriers, i.e. start with the ones that have the least turnaround time and cost and consider prioritizing roads that will have multiple advantages; (c) Reach out more neighbors through leveraging resources for the alternative routes.						
	Resp: Client	Status: In Progress	Stage: Implementation	Recurrent:	Due Date: 30-Jul-2014	Frequency:	
(b) Recipients and development partners' relations: Partnership could be challenged due to lack of strong coordination arrangement at sub-region level and country specific focus of development support.	Risk Management: (a) Continue with the participation in the development plans preparation and Infrastructure/Transport Sector Working Groups in the participating countries; (b) The World Bank to continue with the coordination of development partners.						
	Resp: Client	Status: In Progress	Stage: Implementation	Recurrent:	Due Date: 30-Jul-2014	Frequency:	
(c) Regional Communities: Overlapping engagement and coordination role of sub-regional communities on development matters.	Risk Management: (a) support the formation of a regional/sub-regional community committee involving all stakeholder countries, as a focal regional institution; (b) implement the program sequentially and each project will focus on addressing limited critical priority matters that will be implemented by the participating countries.						

(d) Local Communities: Needs for appropriate compensation in case of land acquisition for the project and request for community development.	Resp: Client	Status: In Progress	Stage: Implementation	Recurrent:	Due Date: 30-Jul-2014	Frequency:
	Risk Management: (a) RAP has been prepared and all compensation issues will be handled as per the recommendations of the RAP; (b) the social infrastructure development sub-component will include water boreholes and other amenities required by the local community					
(e) Project affected people – Road side businesses and farmlands that may be affected by project need to be properly compensated	Resp: Client	Status: In Progress	Stage: Implementation	Recurrent:	Due Date: 30-Jul-2014	Frequency:
	Risk Management: (a) A Resettlement Action Plan (RAP) to mitigate displacement, loss of homes, livelihood and services has been prepared by the client; (b)The RAP has included provisions on grievance redress mechanism consistent with Bank's guidelines; (c) The Client should implement any required resettlement in accordance with the RAP, satisfactory to Bank's safeguards requirement.					
	Resp: Client	Status: Not Yet Due	Stage: Implementation	Recurrent:	Due Date: 30-Jan-2015	Frequency:
	Resp: Client	Status: In Progress	Stage: Implementation	Recurrent:	Due Date: 30-Jul-2013	Frequency:
	Risk Management: (i) The program design will support cross sectoral and inter-country coordination necessary for institutional reforms through continuous monitoring and engagement with the entities in the countries along the Northern Corridor Transit Transport Coordination Authority (NCTTCA); (ii) Formalizing agreements between the countries of (i.e., the MoU for the One Stop Border Post (OSBP), etc.) will ensure an ongoing commitment of the respective authorities.					
Resp: Client	Status: In Progress	Stage: Implementation	Recurrent:	Due Date: 30-Jul-2013	Frequency:	
Risk Management: (i) While implementation will be centralized within the transport/road ministries in terms of procurement and FM, the ministries will also have to manage the relationships with other stakeholders; (ii) Establish/strengthen national transport and trade facilitation groups under the focal ministries.						

	Resp: Client	Status: In Progress	Stage: Implementation	Recurrent:	Due Date: 30-Jun-2013	Frequency:
Risk Management:						
(i) The proposed program will focus strongly on policy harmonization between Kenya and South Sudan first, and continue with the other corridors; (ii)The program will promote the implementation of the NCTTCA and East African Community (EAC) agreements to facilitate harmonization.						
	Resp: Client	Status: Not Yet Due	Stage: Implementation	Recurrent:	Due Date: 30-Jun-2014	Frequency:
Risk Management:						
(i) Leveraging resources for maintenance from the existing Road Funds in Kenya, Uganda and Ethiopia, and establishing a mechanism for ensuring stable flow of maintenance funds for South Sudan; (ii) adopting multi-year/long term maintenance contracting, includingOPRC arrangement; (iii) engaging from the outset Non – Governmental and Governmental entities interested in promoting HIV/AIDS prevention and Road Safety initiatives to uphold the social infrastructure after the program lifetime						
	Resp: Client	Status: In Progress	Stage: Implementation	Recurrent:	Due Date: 30-Jun-2014	Frequency:
Risk Management:						
(i) Following stabilization of the political situation in the sub-region more contractors are expected to show interest in entering the construction market, however, the potential for the upcoming huge infrastructure development has to be properly marketed; (ii) Strengthen the participation of labor based contractors in road maintenance by ensuring continuity of job opportunity; (iii) adopt procurement methods that will enhance open competition.						
	Resp: Client	Status: In Progress	Stage: Implementation	Recurrent:	Due Date: 30-Jul-2013	Frequency:
Implementing Agency (IA) Risks (including Fiduciary Risks)						
Capacity	Rating	High				
Risk Description:	Risk Management:					
(a) Financial Management and Procurement systems are undeveloped particularly in the	(a) Support strengthening of Procurement and FM system and provide continuous assistance to ensure that the implementing entities staffs are able to execute procurement processes properly and prepare adequate budget and monitor progress. The Program Management Teams (PMTs) will be required to provide monthly FM reports to					

<p>South Sudan and setting common procurement and accounting standard could be a challenge. Capacity is low to execute procurement activities and to prepare budgets that lay down physical and financial targets in sufficient detail to monitor subsequent performance and to properly account and report on funds utilization.</p>	<p>ensure close supervision and monitoring of budget; (b) Increase the number of qualified Project Accountants dedicated for managing development project funds under the implementing entities, and include adequate provision under the proposed program to engage FM and Procurement Specialists to support the PMTs/PIUs; (c) Conduct financial and technical audits and prepare robust action plans for program FM.</p>					
<p>(b) Lack of technical and management capacity: Lack of capacity in terms of qualified technical and managerial skills at national and sub-regional levels. The capacity of the sub-regional institutions to oversee the implementation of the proposed program needs to be strengthened. There might be lack of capacity, in terms of technical and managerial skills, qualified staff, for reviewing design and supervision, accounting, overall planning and management.</p>	<p>Resp: Both</p>	<p>Status: In Progress</p>	<p>Stage: Implementation</p>	<p>Recurrent:</p>	<p>Due Date: 30-Jul-2014</p>	<p>Frequency:</p>
<p>Risk Management: (a) Engage consultants to fill the capacity gap in the implementing entities; (b) Prepare human resource development plan for the implementing entities and conduct training in the core functional areas; (c) Continue with the support of institutional development initiative in the participating countries and the sub-regional communities, including creating the capacity to manage Design and Build and OPRC arrangements.</p>						
<p>Governance</p>	<p>Rating</p>	<p>High</p>				
<p>Risk Description: (a) The countries involved in the proposed project may face Corridor governance issues, including inability to permanently reduce road blocks</p>	<p>Risk Management: (a) The proposed program will enhance the existing monitoring and public disclosure of roadblocks and other non-tariff barriers along the Corridor, promoted by the Northern Corridor Transit Transport Coordination Authority (NCTTCA); (b) The first phase of the program will be designed to enhance governance in MTRB of South Sudan by strengthening the procurement and financial management systems and procedures; (c) A Governance and Anti-corruption (GAC) Action Plan based on experience from similar Bank financed projects in the region, and elsewhere will be adopted for the program. The GAC Action Plan aims to reduce the possibility of corruption in the program through the application of transparent and well documented procedures based on the analysis of risks and the governance environment; (d) In addition, the Borrowers will be required to implement the project in accordance with the 2006 Anti-Corruption Guidelines. These will be supported by improved financial management and other controls in program and projects implementation.</p>					
	<p>Resp: Both</p>	<p>Status: In Progress</p>	<p>Stage: Implementation</p>	<p>Recurrent:</p>	<p>Due Date: 30-Jul-2014</p>	<p>Frequency:</p>

<p>(b) Decision making, transparency in budget allocation and management, accountability and oversight could be challenging</p>	<p>Risk Management: (a) Investment prioritization and budget allocation shall be based on the guiding principles set by the program countries development plans and principles adopted for the design of this program, until a comprehensive sub-regional program is developed; Economic Viability and reduction of non-tariff barriers shall be the basis for prioritization as well; (b) The program will have a provision to prepare a Governance and Anti-corruption Strategy for the sector and conduct extensive training and systems establishment to enhance fiduciary responsibilities; (c) Acquaint policy and decision makers with successful business oriented regional transport and trade facilitation initiatives in Africa and elsewhere, and introduce good governance practices by tapping into success stories within and out of the sub-region.</p>					
<p>Resp: Both</p>	<p>Status: In Progress</p>	<p>Stage: Implementation</p>	<p>Recurrent:</p>	<p>Due Date: 30-Jul-2014</p>	<p>Frequency:</p>	
<p>Project Risks</p>						
<p>Design</p>	<p>Rating</p>	<p>High</p>				
<p>Risk Description: (a) Complexity of project design and supervision: The proposed program involves overlapping regional bodies (IGAD/EAC/COMESA), two countries, several sub-components and several implementing agencies in each country. Weak coordination between and within countries, with regional institutions, or among development partners could lead to implementation delays. (b) Adoption of costly pavement structures and geometric design standards: Roads designed to standards that are not cost effective. Inadequate data and information on trade flows may lead to less than optimal designs and delays in making decisions. (c) High construction costs: Road rehabilitation and maintenance costs are not adequately estimated, leading to overruns and lower</p>	<p>Risk Management: (a) To reduce complexity, project design has been simplified as much as possible. The implementation of the program will principally involve two countries and focus on limited tasks, mainly upgrading of the Nadapal corridor.</p>					
<p>Resp: Both</p>	<p>Status: In Progress</p>	<p>Stage: Implementation</p>	<p>Recurrent:</p>	<p>Due Date: 30-Jul-2014</p>	<p>Frequency:</p>	
<p>Risk Management: (a) There will be a provision for design review in the supervision contract to consider cost effective option in due course of construction. (b) In the future, design and build or OPRC contracts could be considered to allow contractors to assess cost effective design and construction options; (c) Carryout comprehensive and detailed study on potential of the sub-regional economic growth and trade development and use this as the basis for any traffic forecast.</p>						
<p>Resp: Both</p>	<p>Status: In Progress</p>	<p>Stage: Implementation</p>	<p>Recurrent:</p>	<p>Due Date: 30-Jul-2014</p>	<p>Frequency:</p>	
<p>Risk Management: (a) The project will build on the lessons from the implementation of transport projects in the region; (b) To ensure that road construction costs remain competitive the following measures will be adopted for the proposed program and first phase project: (i) awarding contracts based on OPRC; (ii) setting-up a procurement framework designed</p>						

<p>outputs. The risk margin for construction projects could be high due to mines risk, insecurity and high labor cost.</p>	<p>to minimize contractor collusion; (iii) application of cost effective engineering design solutions; (c) contract size packaging to maximize competition; and (iv) use of more realistic and up-to-date cost estimates; (c) As the political stability improves contractors are expected to reduce risks, in addition exhaustive demining has to take place before tenders are launched.</p>					
	Resp: Client	Status: In Progress	Stage: Implementation	Recurrent:	Due Date: 30-Jul-2014	Frequency:
Social and Environmental	<p>Rating Substantial</p>					
<p>Risk Description:</p> <p>Safeguards risk - During construction environmental and social mitigation measures may not be mainstreamed in contracts and implemented. The implementing entities may not allocate budget for implementation of the RAP.</p> <p>The program will increase movement of traffic along the corridors and this may raise concerns in spreading HIV/AIDS and increase the risk of road safety, the latter may be exacerbated by heavy dust along corridors serving big trucks, if the road is not sealed.</p>	<p>Risk Management:</p> <p>(a) An Environmental and Social Impact Assessment , ESMP and RAP have been prepared, consulted upon and disclosed for the Juba-Nadapal segment, and same will be prepared for the all other road upgrading projects, and mitigation measures will be implemented by the Clients and the contractors; an ESMF and RPF have been prepared, consulted upon, and disclosed for the Kenya portion of the project; a Social Assessment will be prepared, consulted upon, and disclosed before appraisal of the second project (b) The Clients, supervision teams, and contractors will have environmental and social experts to ensure adherence to project safeguard provisions; (c) The clients responsibility to implement the RAP will be reflected in the legal agreement.</p>					
	Resp: Client	Status: In Progress	Stage: Implementation	Recurrent:	Due Date: 30-Jul-2014	Frequency:
	<p>Risk Management:</p> <p>(a) The trade facilitation component will have adequate provision for HIV/AIDS awareness and prevention campaigns and establishment of care centers focused on hot spots, as part of the second phase of the program; (b) road safety improvement measures will be mainstreamed in civil work contracts, dust reduction options, including sealing/paving the corridors will be factored in project design, as well as the program will work in collaboration with national Road Safety institutions.</p>					
	Resp: Client	Status: In Progress	Stage: Implementation	Recurrent:	Due Date: 30-Jul-2014	Frequency:
Program and Donor	<p>Rating Substantial</p>					
<p>Risk Description:</p> <p>(a) Extent and timing of support from other development partners may not be confirmed in due course of preparation. The absence of</p>	<p>Risk Management:</p> <p>(a) Confirm commitment of the potential development partners invited by the Government and the Bank to provide support to the project; (b) Engage with potential development partners expected to co-finance the project during preparation.</p>					
	Resp: Bank	Status: Not Yet	Stage: Imple	Recurrent:	Due Date: 30-Oct-2015	Frequency:

adequate financing may lead to partial upgrading of the proposed corridors and the anticipated objective of establishing a shorter link to the sea port may be delayed.		Due	mentat ion		Date:	
	Risk Management: (a) The project considers this as a risk that may lead to an early restructuring of the results, if the financing from China EXIM Bank does not come through. However, from the consultations between the World Bank and China EXIM Bank there is a strong commitment from China EXIM Bank side to parallel finance the project; (b) China EXIM Bank may supervise safeguards on the section to be upgraded from its loan, and GRSS will supervise the implementation of the mitigation measures with the support of an independent firm. GRSS will also ensure all development partners, including China EXIM Bank will adopt the project safeguard instruments.					
(b) Timing of the financing by China EXIM Bank depends on the conclusion of the bilateral agreement between the Government of the Republic of South Sudan (GRSS) and China EXIM Bank, and this may delay the start-up of part of the road upgrading works. Supervision of safeguards may have to be carried out separately or through GRSS.	Resp: Client	Status: Not Yet Due	Stage: Imple mentat ion	Recurrent:	Due 30-Oct-2015 Date:	Frequency:
	Delivery Monitoring and Sustainability					
Risk Description: (a) Various activities to be implemented in one project. Engaging with implementing entity with limited experience may overwhelm the Bank's supervision capacity.	Rating	High				
	Risk Management: (a) Clearly define activities to be incorporated in each phase of the program and adopt clear project implementation and reporting mechanisms (with clear red-flagging), and limiting activities to be incorporated in each phase of the proposed program.; (b) PMTs that have experience in managing Bank projects will be responsible for project implementation and adequate TA will be provided under the project; (c) Significant supervision resources expected.					
(b) Lack of reliable data may affect decision-making during project preparation or implementation.	Resp: Bank	Status: Complet ed	Stage: Prepar ation	Recurrent:	Due 30-Sep-2013 Date:	Frequency:
	Risk Management: (a) establish baseline data ; (b) Emphasis on monitoring and evaluation with robust baseline surveys; (c) The PMTs, under the program will engage consultants for monitoring and evaluation.					
(c) Sustainability: Road maintenance is not performed adequately along the corridors in the sub-region. Sustenance of social infrastructure established under the program could be a challenge.	Resp: Bank	Status: Not Yet Due	Stage: Imple mentat ion	Recurrent:	Due 01-Jan-2015 Date:	Frequency:
	Risk Management: (a) provisions will be made to strengthen existing road funds; (b) Leveraging resources for maintenance from the existing Road Funds and establishing a mechanism for ensuring stable flow of maintenance funds in South Sudan; (c) adopting multi-year/long term maintenance contracting including OPRC arrangement; (d) The sustainability of the social infrastructure will be ensured by the involvement of key private stakeholders to support the public stakeholders. In addition, the established centers will be mainstreamed within the domestic institutional					

	framework, but will evolve towards offering fee-based services.					
	Resp: Client	Status: Not Yet Due	Stage: Implementation	Recurrent:	Due Date: 30-Jun-2014	Frequency:
Other (Optional)	Rating	High				
<p>Risk Description:</p> <p>(a) Insecurity and landmines: Sporadic act of banditry along the corridors are threat to transport operators and contractors. The presence of landmines in some spots of the corridors that were battle grounds could also be a risk to contractors operation. Instability and conflict may pose disruption to the smooth implementation of the project.</p> <p>(b) The conflict that broke out in December 2013 in South Sudan may compromise the capacity of the government, increase cost, impact the safety of contractors working on the project sites and disrupt implementation.</p>	Risk Management:					
	(a) Monitor security incidences and work with law enforcement bodies; (b) Request governments to be responsible for landmines clearance; (c) Carry out landmines clearance ahead of tendering.					
	Resp: Client	Status: In Progress	Stage: Implementation	Recurrent:	Due Date: 30-Jul-2014	Frequency:
	Risk Management:					
(a) an independent project management firm or a UN Agency like United Nations Office of Project Services (UNOPS) may have to be engaged to be manager of the civil works contracts and deliver the monitoring and supervision services of the road improvement and fiber installation, as well as the Technical Assistance to the modernization of the SSCS; (b) include provision for unforeseen cost increase due to security; and (c) arranging adequate security for the operation and locate project camps and stationary equipment in safer areas.						
	Resp: Client	Status: In Progress	Stage: Implementation	Recurrent:	Due Date: 01-Jan-2015	Frequency:
Overall Risk						
Overall Preparation Risk:	Risk:	High				
<p>Risk Description: Part of the program will be implemented by a post conflict country affected by conflict and implementation also requires the engagement of two countries (South Sudan and Kenya) and multiple agencies. The program also requires significant financial resources that will be contributed by multiple development partners. There are risks of capacity constraints, in particular in South Sudan; spot landmines and insecurity; the absence of a competitive construction market; and sustainability of the facilitation measures.</p>						

Annex 5: Implementation Support Plan

AFRICA: Project Name: South Sudan- Eastern Africa Regional Transport, Trade and Development Facilitation Project (First Phase of Program) (P131426)

Strategy and Approach for Implementation Support

1. The strategy for implementation support has been developed based on the nature of the program and its risk profile. It will aim at making implementation support to the client more flexible and efficient, and will focus on implementation of the risk mitigation measures defined in the Operational Risk Assessment Framework (ORAF), namely the delivery quality and design risk which are rated as High, as well as the traditional supervision focus areas including safeguards and fiduciary aspects.
2. Formal supervision and field visits will be carried out semi-annually, and will focus on:
 - (a) **Technical inputs.** Engineering inputs are required to review bid documents to ensure fair competition through proper technical specifications and fair assessment of the technical aspects of bids. A very experienced transport engineer will review the detailed designs for the road upgrading, the accident black spots and the proposed civil engineering works at the border crossings. During construction and commissioning, close technical supervision will be provided to ensure technical, environmental and social contractual obligations are met. The team's engineer will conduct site visits on a semi-annual basis throughout project implementation. Inputs will also be provided by a trade facilitation specialist on the establishment of the Corridor Management Committee, the Corridor Performance Monitoring System, harmonization of customs procedure, modernizing the South Sudan Customs Services (SSCS), and the proposed technical assistance and studies.
 - (b) **Fiduciary requirements and inputs.** Training will be provided by the Bank's financial management specialists and the procurement specialists based in Kenya and South Sudan before the commencement of project implementation. The team will support the Ministry of Transport and Infrastructure, Kenya National Highway Authority, Kenya Revenue Authority, Ministry of Transport, Roads and Bridges of South Sudan and SSCS in their financial management capacity and to improve procurement management efficiency. The financial management specialists and the procurement specialists will both be based in the country office to provide timely support. Supervision of financial management arrangements will be carried out semi-annually as part of the project supervision plan and support will be provided on a timely basis to respond to client needs. Procurement supervision will be carried out on a timely basis as required by the client.
 - (c) **Safeguards.** The environment and social specialists will support relevant counterpart staff and provide any necessary training. On the social side, supervision will focus on the implementation of the agreed RAP, and the Social Infrastructure and Services, including Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome (HIV/AIDS) and road safety sub-components. Field

visits will be made on a semi-annual basis. GRSS, with the support of the independent firm, will conduct safeguards supervision of all contracts financed through the World Bank and other co-financiers, on the entire Juba-Nadapal road and ensures the safeguard instruments adopted for the project are implemented appropriately and consistently. The Bank team will work closely with GRSS on the supervision.

- (d) **Client Relations.** The Task Team Leader will coordinate the Bank team to ensure project implementation is consistent with Bank requirements, as specified in the legal documents. He will meet with senior officials on a regular basis to keep them apprised of program progress and issues requiring resolution at their level.

Implementation Support Plan

3. The main focus in terms of support to implementation would be as follows:

Time	Focus	Skills Needed	Resource Estimate (Staff Weeks/year)	
First twelve months	Team Leadership	Management, supervision, coordination	Task Team Leader (TTL) Co-TTL ICT sector cross support	6 6 3
	Project Support	Supervision, coordination	Transport Engineer/specialist Transport Economist	6 6
	Technical	Road engineering, design, technical supervision, trade facilitation expertise	Transport/highway Engineer Trade Facilitation Specialist	6 4
	Social	Social safeguards, land acquisition and resettlement, gender, HIV/AIDS and road safety	Social Specialists Gender Specialist HIV/AIDS Specialist Road Safety Specialist	6 2 1 2
	Environment	Bank norms knowledge, environmental safeguards	Environmental Specialists	6
	Procurement	Procurement experience, Banks procurement norms knowledge, training	Procurement Specialists	8
	Financial Management	FM experience, knowledge of Bank FM norms, training	FM Specialists	8
	12-48 months	Team Leadership	Project management, supervision, coordination	Task Team Leader Co-TTL ICT sector cross support
Project Support		Supervision, coordination	Transport Specialist Transport Economist	6 4
Technical		Road engineering, supervision, trade facilitation expertise	Transport Engineer Trade Facilitation Specialist	8 6
Social		Social safeguards, land acquisition and resettlement, gender, HIV/AIDS and road safety	Social Specialists Gender Specialist HIV/AIDS Specialist Road Safety Specialist	6 2 2 2

	Environment	Environmental safeguards, supervision and monitoring, training as needed	Environmental Specialists	6
	Procurement	Procurement reviews and supervision, training as needed	Procurement Specialists	8
	Financial Management	FM reviews and supervision, training and monitoring	FM Specialists	8
48-60 months	Team Leadership	Project management, supervision, coordination	Task Team Leader Co-TTL ICT sector cross support	6 6 3
	Project Support	Supervision, coordination	Transport Specialist	6
			Transport Economist	4
	Technical	Road engineering, supervision, trade facilitation expertise	Transport Engineer	6
			Trade Facilitation Specialist	6
	Social	Social safeguards, land acquisition and resettlement, gender, HIV/AIDS and road safety	Social Specialists	6
			Gender Specialist	2
			HIV/AIDS Specialist	2
		Road Safety Specialist	2	
	Environment	Environmental safeguards, supervision and monitoring, training as needed	Environmental Specialists	4
	Procurement	Procurement reviews, training as needed	Procurement Specialists	8
	Financial Management	FM reviews, training and monitoring	FM Specialists	8

4. The following skills mix is required for implementation support:

Skills Needed	Number of Staff Weeks	Number of Trips	Comments
Task Team Leader	6 Staff Weeks/year	Two/year	HQ based
Transport/Highway Engineer	6 Staff Weeks/year	Two/year	Region based
Trade Facilitation Specialist	8 Staff Weeks/year	Two/year	HQ based
Transport Economist	6 Staff Weeks/year	Two/year	HQ based
Transport Specialist	6 Staff Weeks/year	Two/year	Country based
ICT Sector Specialist	3 Staff weeks/year (falling to 2 after first three years)	Two/year	HQ based
Social Specialists	6 Staff Weeks/year	Two/year	HQ, Region &Country based
Environmental Specialists	6 Staff Weeks/year	Two/year	HQ, Region &Country based
Procurement Specialists	8 Staff Weeks/year	n/a	Country based
FM Specialists	8 Staff Weeks/year	n/a	Country based
HIV/AIDS Specialist	2 Staff Weeks/year	n/a	HQ, Region, &Country based
Road Safety Specialist	2 Staff Week/year	n/a	HQ based
Gender Specialist	2 Staff Week/year	n/a	HQ, Region, & Country based

Annex 6: Economic and Financial Analysis
AFRICA: Project Name: South Sudan- Eastern Africa Regional Transport, Trade and
Development Facilitation Project (First Phase of Program) (P131426)
(SS-EARTTDFP)

Economic Analysis

1. The economic analysis for the upgrading of the road infrastructure, Juba - Eldoret road corridor, the substantial part of the program investment, was carried out in four sections. The analysis for South Sudan part covered the Juba - Nadapal section, while the Kenya part was sub-divided into three sections: (a) Nadapal - Lodwar; (b) Nadapal - Marich Pass; and (c) Marich Pass - Eldoret/Lasseru.
2. The economic analysis was undertaken using the Highway Development and Management Model, Version 4 (HDM-4), using the conventional approach of comparing the estimated road users and agency benefits and costs in the “do-something” scenario, when the new road is rehabilitated, against the “do-minimum” scenario, involving the status quo, and the continuation of the current maintenance regime. The economic analysis includes base year traffic flows, traffic growth rates and forecasts of generated and diverted traffic.
3. The results of the economic analysis for the different sections of the 958 km program corridor are summarized in Table 1. The results for the four sections have shown an EIRR ranging from 14.6 percent to 41.3 percent, and NPV ranging from US\$23 million to US\$410 million, demonstrating that the upgrading of the corridor is economically viable.

Table 6.1: Program Corridor Economic Analysis

Road Section	Length (km)	Traffic flow			Cost estimate US\$ m		Economic analysis		
		AADT	Generated	Diverted	Total	Per km	EIRR (%)	NPV (US\$ m)	Sensitivity analysis EIRR
Juba-Nadapal	363	71-135 ¹	127-135	70	411.15 ²	1.22	21.1	353.90	19.5 ³
Nadapal - Lokichoggio	240	357 (520) ⁴	36	115	180.6	0.73	14.6	23.45	11.9
Lokichoggio - Lodwar		368 (644) ⁴	36	113					
Lodwar – Marich Pass	197	154-262 (1537) ⁵	<i>see note 6</i>	(±124)	335.24	1.70	33.2-41.3	410.35	26.7
Marich Pass - Eldoret	158	193 to +10,000	<i>see note 7</i>	17	228.62	1.45	31.4	321.3	21.1

Notes

1. The figures show the range of traffic flow over the Nesitu (start of the project- junction to Torit and Nimule) to Torit section. The AADT along the Juba-Nesitu section is 723 while the estimate of the generated traffic is 1038.
2. Cost estimates include supervision and OPRC maintenance and is based on detailed design.
3. EIRR is only > 12% + NPV positive if short-term labor + regional (economic outputs from the Road Zone of Influence) benefits are included
4. The traffic figures in italic include motorcycles.
5. The traffic figures show the range of traffic flows between Lodwar and Marich Pass. The figure in italics shows the traffic flow in the urban area of Lodwar.
6. The consultant determined trip generation factor only.

7. The consultant estimated a 4.6 % growth rate for generated traffic.

Trade and Transit Traffic flow

4. This section highlights the essential trade flows in the region and outlines the key features of the corridors linking Juba to the Port of Mombasa. A summary of traffic through the Port of Mombasa (see Table 6.2) highlights the growth in trade in the sub-region over the period 2002-2009. Imports to the region show a strong average annual growth of 11.2 percent, whereas exports remain almost stagnant at 0.4 percent growth. In addition, over the same period container traffic has doubled. The table also provides an estimate of the flow of imports and exports to and from South Sudan.

Table 6.2: Mombasa Port Traffic (2002 – 2009) and to South Sudan

	2002 ('000s tons)	2006	2009	Annual growth
Imports				
Container + general cargo, dry + bulk cargo	7,844	11,846	16,507	11.2%
Transit cargo ¹	1,875	4,347	3,612	13.7%
Exports				
Container + general cargo, dry + bulk cargo	2,380	2,255	2,450	0.4%
Transit cargo ¹	340	335	368	1.1%
Total –imports+exports	10,240	14,101	18,957	9.2%
Container traffic (TEU)	305,427	479,355	618,816	10.6%
South Sudan				
Imports	92.8	130.0	155.7	9.7%
Exports	0.16	7.8	11.66	1007.8%
Total – South Sudan	92.96	137.8	167.36	11.4%

Note - 1 Included in total cargo

Source: Kenya Ports Authority - Corridor Diagnostic Study Northern and Central Corridors of East Africa – USAID/DfID – Nathan Associates Inc. April 2011

5. Mombasa is the principal port for the East Africa region serving the countries of the EAC and others. Port traffic flow shows the countries, apart from Kenya, that rely on Mombasa for the bulk of their international trade are: (a) Uganda, (b) Tanzania, (c) Burundi, (d) Rwanda, (e) South Sudan, (f) Democratic Republic of Congo (DRC), and (g) Somalia. Tanzanian trade is conducted primarily through Dar-es-Salaam, however in periods of port congestion some trade diverts temporarily to Mombasa. The primary users of Mombasa are Kenya and Uganda.

6. Ugandan exports to South Sudan are approximately 1,390,000 tons per year, but not all these exports are imported through Mombasa. The two main origins of this trade are Ugandan exports of indigenous origin and Ugandan trade to South Sudan of international origin. Indigenous exports comprise primarily Ugandan agricultural exports and raw materials not directly linked to any international trade movements, and goods and products transformed within Uganda (Kampala/Gulu) and therefore not directly transported.

7. Ugandan exports with an international origin comprise finished imported goods, which have entered through the port of Mombasa. But due to the poor condition of alternative routes through Kenya and the well-established importance of Kampala as a logistical, trading, processing, customs clearing and redistribution center; imports and exports are routed through

Kampala or Gulu. These goods transported to Kampala become part of the Ugandan-South Sudan export flows, even if their landfall was Mombasa.

8. Although Kenya is one of the major manufacturers of consumable goods in the sub-region, South Sudan with an oil dependent economy, accounts for about only 12 percent of Kenyan exports. Trade between South Sudan and Ethiopia, and between Uganda and Ethiopia, is restricted due to lack of reliable all-season road access.

9. The major upgrading of the Port of Lamu aims to relieve congestion at Mombasa. This development will significantly influence transport demand along the corridor and the development of transport links to South Sudan.

Regional Connectivity, Transport and Trade facilitation

10. The road between Eldoret in Kenya to Juba in South Sudan, known as the Kenya - South Sudan Link Road, is one of the major corridors linking Southern Sudan to the Port of Mombasa. This corridor forms part of Corridor No.3 of the East African Community Road Network, which starts from the northern border of Tanzania at Isebania and passes through Kisumu, Kitale, Lodwar, Lokichoggio to Nadapal and finally to Juba.

11. The program road is a branch of the main trunk route known as the Northern Corridor linking the Kenyan port of Mombasa on the Indian Ocean to landlocked EAC countries, and large areas of DRC's hinterland that are inaccessible from the Atlantic Ocean. Specifically, the program road is a link along the Mombasa - Nairobi - Nakuru - Eldoret - Lodwar - Nadapal - Juba route into South Sudan.

12. The program corridor is a strategic regional transport artery. After the program road is upgraded from Eldoret to Juba, it will serve both the capital of South Sudan, and the eastern part of South Sudan, the location of the main oil exploitation areas.

13. Almost all of South Sudan's links to the outside world prior to the civil war were northwards to Khartoum and Port Sudan, but these have been disrupted following the conflict between South Sudan and Sudan. Thus, South Sudan depends completely on Kenyan and Ugandan road networks. The condition of these networks determines, to a large extent, the cost of South Sudan's business with the outside world. There are currently four road corridors along which South Sudan's regional and international trade and commerce flows, the corridors are:

- A. Eldoret - Malaba - Jinja - Kampala - Gulu - Kaya - Yei - Juba,
- B. Eldoret - Malaba - Jinja - Kampala - Gulu - Nimule - Juba,
- C. Eldoret - Malaba - Soroti - Gulu - Nimule - Juba, and
- D. Eldoret - Kitale - Marich Pass - Lodwar - Nadapal - Juba.

14. All the four corridors are in constant use. However, traffic along corridor D, Eldoret-Nadapal-Juba, has been in decline for a number of years due to its deteriorating condition. This deterioration has accelerated in recent years to the extent that large portions have degraded to gravel or earth road standard. Although Corridor C is the shortest, transit traffic via Uganda passes through Kampala as road conditions are better and the terrain is less rugged. However, the route through Kampala is longer than the route through Nadapal.

15. In the recent past, when the road condition was much better, goods, passengers and services flowed from Kenya to Juba via Lodwar and Nadapal. The project road's international function has declined - with traffic diverting to corridors A, B and C above. Comparison of travel time between Mombasa and Juba along the four corridors when all were in a passable condition is shown in Table 3.

Table 6.3: Key Features of the Corridors

Corridor	Distance: Mombasa to Juba	Time: Mombasa to Juba	Transit regimes	Corridor transport modes
1. Eldoret–Kaya–Juba	1,950 km	7-11 days	Two	Road, rail + pipeline
2. Eldoret–Kampala–Nimule–Juba	1,820 km	6-9 days	Two	Road, rail + pipeline
3. Eldoret–Soroti–Nimule–Juba	1,630 km	6-9 days	Two	Road, rail, + pipeline
4. Eldoret–Nadapal ¹⁹ –Juba	1,745 km	5-8 days	One	Road, rail, + pipeline

Source: Juba–Nadapal Feasibility Study Report, June 2010

16. The gains from the upgrading of the road infrastructure must be supported by enhancing the transit efficiency of the corridor. Thus, the program includes sound trade and transport facilitation measures: (a) harmonizing customs procedures and establishing efficient arrangements for cross-border traffic management, establishing one stop border post at Nadapal; (b) putting in place efficient transit agreements facilitating the movement of traffic between the port of Mombasa and Juba; (c) establishing adequate and efficient financial and social infrastructure, including banking and insurance services, HIV/AIDS prevention activities, and establishing rest stops; (d) facilitating the development of export processing zones and storage facilities; (e) enhancing road safety; and (f) overloading control.

Technical

Corridor Profile

17. The Juba - Nadapal road extends along 363.2 km of gently undulating terrain passing between high mountain ranges from Nadapal through Kapoeta, Boya Hills and Torit ending at Juba on the bank of the White Nile. The section between Juba and Kapoeta has intensive rain for about five to six months in a year. The project upgrading works will be starting from Nesitu, making the total length to be upgraded 337 km as per the final design.

18. The Nadapal - Lodwar road crosses generally a flat to rolling terrain, except the partly mountainous terrain towards Nadapal. The project area is semi-arid with low intensity of rain, and water is in short supply during the dry season.

19. From Marich Pass (elevation 953 m) to Kainuk, the road traverses flat and slightly rolling terrain. The road descends gradually to reach Kainuk (elevation 832 m). From Kainuk to Lokichar, the road gradually rises in elevation for about 10 km north of Kainuk (elevation 950

¹⁹ The Lamu port, which branches off at about 400 km away from Nadapal makes the distance between Juba and the Port about 1,600 km.

m) and then begins a gradual descend to Lokichar (elevation 768 m). From Lokichar to Lodwar, the terrain is very flat for the first 50 km and then the road descends to an elevation of 500 m in Lodwar.

20. The road starts off at Lesseru and traverses a low-lying marshy section for the first 5 km. The road traverses a terrain that is predominantly rolling through Lugari and Trans Nzoia before reaching the urban settlement of Kitale. The road section between Lesseru, Kitale and Kapenguria traverses an area with reliable annual rainfall. The road section between Kapenguria and Marich Pass traverses an area with unreliable annual rainfall

Road condition

21. Road conditions vary considerably along the program corridor from fair to poor and in some sections the road has degraded to gravel or an earth road. The road conditions are summarized in table 6.4.

Table 6.4: Existing Road Conditions along the Program Corridor

Road Section	Road Condition
Juba–Nadapal	Road conditions are fair to good but insufficient maintenance turns the road to a poor condition during heavy rain.
Nadapal–Lodwar	Nadapal to Lokichoggio is essentially an earth road, the gravel surface having eroded. Lockichoggio to Lodwar is in a fair to poor condition with extensive potholing throughout.
Lodwar–Marich Pass	Heavy traffic involved in relief operations from Mombasa to South Sudan coupled with insufficient maintenance has resulted in accelerated deterioration. Most of the bituminous surfacing is failing or has been destroyed. Only occasional grading keeps the road passable.
Marich Pass–Eldoret	Road conditions are poor between Marich Pass and Kapenguria. From Kapenguria to Kitale road conditions are fair. Between Kitale and Lesseru/Eldoret road conditions are fair but shoulder erosion is extensive.

Geometric and pavement standards

22. The proposals for road upgrading are summarized in table 6.5 for a single carriageway width of 7 meters and shoulders 2 meter wide throughout the corridor, except the section from A1/B2 Junction to A/1/C45 Junction in Kenya, which is a dual carriageway. The shoulder for the Juba–Nadapal segment consists of a 1.5 meters surfaced section and an additional un-surfaced shoulder 0.5 meter on each side. The additional 0.5 meter will also be surfaced to make it consistent with the Kenyan side. The shoulder between Logichoggio and Juba will also be used for the installation of fiber optics and requires adequate sealing.

A summary of the proposed pavement standards is presented in Table 5.

Table 6.5: Proposed pavement standards for road upgrading

	Juba–Nadapal	Nadapal–Lodwar	Lodwar–Marich Pass	Marich Pass–Eldoret
Wearing course	50mm asphaltic concrete	50mm asphaltic concrete	50mm asphaltic concrete	50mm asphaltic concrete
Base	200mm dense bitumen	150mm dense	150mm dense bitumen	200mm lean concrete

	macadam	bitumen macadam	macadam	
Sub-base	350mm natural gravel	300mm cement stabilized gravel	275 cement/lime stabilized gravel	250mm graded crushed stone
Subgrade	Recycled and compacted existing pavement	150-225mm of recycled existing pavement	Improvement depending on CBR values	300mm of recycled existing pavement
Shoulders	Double surface dressing w/course; base and sub-base as main carriageway	35mm asphaltic concrete w/course; 150mm cement stabilized gravel; sub-base as carriageway	[as main carriageway]	as main carriageway

Alternatives Design Options Assessment

23. A comparative assessment of the benefits and cost implications of upgrading the road to an AC or DBST standard was conducted and the variation in economic viability results was found to be marginal, as shown in Table 6.5. The major differences between AC and DBST are presented in Box 1.

Box 1. Comparison between AC and DSD/DBST treatments

Asphalt Concrete Surfacing	Double Bituminous Surface Treatment
<ul style="list-style-type: none"> • More expensive than DBST • Usually a minimum thickness of 50mm, placed as a viscous liquid in one continuous operation • Material can be re-used (recycled) by removal, crushing and re-laying as base course • Numerous additives available to enhance performance under varying range of conditions • Requires suitable, durable crushed rock aggregate to provide strength • Is easier to work with and lay 	<ul style="list-style-type: none"> • Cheaper alternative to asphalt concrete • Can be very thin, as it is placed on the surface in layers • Subsequent seals (e.g. for maintenance purposes) can be simply sprayed over the old seal, provided that underlying materials have remained sound • Numerous additives and extra treatments can be utilized to enhance performance under varying conditions • Requires suitable, durable crushed rock aggregate to provide durability • Some experience is required to work with and lay correctly otherwise it can become a disaster

Source: Juba–Nadapal Road Feasibility Study Report, SMEC, June 2010

Gravel Road Option

24. The option of upgrading the road segments dilapidated to nearly earth road to a gravel standard and sustaining it with continuous maintenance through OPRC appears to be expensive over the road life cycle for the following reasons:

- The existing road is in very poor state and requires complete reconstruction, which requires high initial cost, which will warrant sealing to protect the investment from being washed out during the long and heavy rain season.
- As a regional corridor the traffic mix using the road will be dominated by heavy vehicles, which will sharply increase the Average Annual Daily Traffic (AADT) in terms of passenger car unit (AADT-pcu) and surpass the upper limit for a low

volume road, about 300 vehicles per day, a threshold which calls for surfaced road.

- The gravel loss in a highly trafficked road could excessively be high and requires frequent re-gravelling, which has cost implication and leads to adverse environmental impact due to depletion of road maintenance and construction materials.
- This challenge is more pronounced in areas where the rainy season is long and intensive, which will not allow any intermittent spot improvement and ultimately leads to creation of big ponds on the carriageway, at the end of the season. This requires frequent reconstruction and heavy repair works, which is costly operation.
- Moreover, dust on heavily trafficked gravel road will increase safety risk. The gravel material commonly used as sub-base/gravel wearing course (Murrum) is very abrasive and quickly changes to dust and traffic accident on re-graveled roads was observed to be high.
- The high cost for reconstructing the road to a maintainable gravel road standard and high maintenance cost compounded with high safety risks will not make the gravel option attractive, as a long-term solution.

25. However, in the areas that receive less rain and lateritic material is in abundance, stage construction could be considered, whereby the surfacing work could be followed within a period of two to five years, i.e. before the traffic builds up.

Overall Assessment of the Design and Contracting Arrangement

26. To ensure all season access the construction of bridges and upgrading the road in stages, starting with gravel sub-base, in areas where the intensity of rain is low, lateritic material is in abundance and the traffic volume is lower has been considered.

27. Considering the challenges of preparing high quality design and bidding document, reducing the risk of cost overrun, and ensure sustainability of the investment the project has opted for design-build (DB), and OPRC approaches. These arrangements allow the contractors to optimize the design, apply innovative method, and take over the responsibility of the quality of design and construction. For contract sections with about 150 km or longer OPRC arrangement will be considered. The option of DB is also considered where the contract length is short and a contract constitutes construction of bridges only or bridges account for significant proportion of the contract amount.

28. The four design firms recommended AC for the wearing course due to maintenance risks and quality of DBST, as well as climatic factors. Low volume sealed road option, such as Otta seal, is not considered by the designers, due to the anticipated traffic volume and nature, which will constitute mainly heavy trucks. The wearing course will be influenced by traffic nature and volume, climate factors, terrain, availability of material, maintenance risk, safety, and ultimately the level of service. Further, the design documents on the three design contracts on the Kenyan side have recommended the application of AC on the shoulder, which appears to be expensive and may not be necessary, given the temporary use of this part of the road.

29. The DBST option is also sensitive to the climate condition. The section between Juba and Kapoeta receives intensive rain and the duration is long. As well the road crosses flat area, which is susceptible to overflow of flood across the road at lower grounds. Under such circumstances, the long duration of the rain, which restricts maintenance, and the slow flow of rain water could allow percolation of water through the fine cracks of DBST and spoil the base material, which may call for base correction during routine maintenance. This will make the cost of maintenance expensive, and reduce the design life and service level of the road. The remaining section from Kapoeta to Nadapal receives less rain and crosses a rolling terrain with abundant lateritic material along the road, which makes the case for a DBST or gravel road coupled with long term maintenance contract, until the traffic level increases. The section in the Kenyan territory receives less rain, has abundant lateritic material and crosses rolling and flatter terrain, except on the wades. However, the traffic level is relatively higher to justify sealing.

30. The treatment of the sub-grade and sub-base materials is determined on the basis of the results of the materials test, and as such the proposed measures are not considered conservative, except for the case of the use of stabilized crushed stone as a sub-base material. The application of dense bitumen macadam base course has to be revisited to confirm the necessity as the traffic level does not call for such type of intervention, unless the hauling distance of crushed stone is long and reduction of aggregate is sought.

31. Structures are designed with limited historical hydrological data and based on consultations with local people on high flood level and frequency, which leads to a conservative design, but often safe. The bill of quantity estimation also relies on the accuracy of survey data and due diligence in undertaking adequate materials test, soil investigation, and investigation of availability of material; which are often weaknesses of a design process and main cause for cost overrun.

32. The Clients are aware of the areas that require reviewing. South Sudan will do a review of the pavement design as part of the repackaging process. Kenya has already reviewed the design and discussed with the consultants to rationalize the pavement design. The Clients have initiated the process to repackage the contracts and preparing bidding documents that are suitable to the existing situation.

33. Summaries of the traffic and economic analysis for the four segments are presented as follows:

JUBA- NADAPAL

Traffic Analysis

34. The “without” project base year traffic was established based on a traffic count carried out in 2008 and converted into Annual Average daily Traffic (AADT). Estimates of generated traffic were calculated based on the consultant’s experience in similar countries, and diverted traffic based on the Nimule-Juba road Feasibility Study Origin Destination (OD) Survey, carried out around the same time. A summary of the traffic volume estimates is presented in Table 6.6.

Table 6.6 Summary of AADT, Generated and Diverted Traffic

Road Section	Length (km)	Cars/pickups	Buses	Trucks	Total Traffic
AADT					
Juba - Gumbo	3.5	357	111	255	723
Gumbu - Nesitu	17.6	146	55	178	379
Nesitu - Torit	109.8	63	28	44	135
Torit - Kapoeta	142.6	41	31	27	99
Kapoeta - Nadapal	89.7	31	9	31	71
Generated Traffic Estimates					
Juba - Gumbo	3.5	545	149	344	1038
Gumbu - Nesitu	17.6	146	55	178	379
Nesitu - Torit	109.8	63	28	44	135
Torit - Kapoeta	142.6	26	50	25	101
Kapoeta - Nadapal	89.7	26	50	51	127
Diverted Traffic Estimates					
Juba - Nadapal				70	70

Source: Juba-Nadapal Feasibility Study Report, June 2010

Economic Analysis

35. The analysis was performed using the following parameters and assumptions: (a) Discount rate: 12 percent; (b) Period of analysis of 25 years to account for the period of time required by the agriculture sector to reinstate pre-war agriculture activity and output; (c) Residual value of the road at the end of the analysis period 35 percent; (d) Economic conversion factor: 0.91; (e) The impact on regional growth begins to be felt approximately five years after the road has been constructed; and (f) Estimates of GDP growth are based on an analysis presented by the Asian Development Bank on the impact of highway and rural road construction on economic development and poverty alleviation. Kenyan and Ugandan HDM4 economic and traffic analysis Guidelines and Procedures have been used in undertaking the economic analysis.

36. The economic analysis includes the benefits derived from: (a) vehicle operating costs (VOC) savings on the road; (b) time savings from reduced journey times; (c) crew time costs; and (d) reduced agency costs. Incremental analysis was conducted to show how each of the identified and quantified benefit components add to the final estimate of the Economic Internal Rate of Return (EIRR) and the value of the project's net benefits.

37. The economic analysis conducted by the consultant²⁰ at feasibility stage was based on the capital costs that included the reconstruction/upgrading of the road, parking and sidewalks in the communities along the road, together with necessary traffic calming measures, and with the costs of maintaining the road over the appraisal period. The costs of land acquisition, design and supervision costs have been excluded. The analysis considered the options of upgrading the road

²⁰ SMEC was commissioned to undertake the feasibility study and detailed engineering design for the Juba – Nadapal road.

to Asphalt Concrete (AC) or Double Bituminous Surface Treatment (DBST) - Double Surface Dressing (DSD). The analysis indicated that upgrading the road would significantly benefit road users and the regional economy that the road will support. A summary of the results of the economic analysis is presented in Table 6.7.

Table 6.7: Economic Analysis Summary

Incremental Benefit	Asphalt concrete (AC)		Double Surface (DSD)	
	EIRR	NPV (US\$ million)	EIRR	NPV (US\$ million)
Normal Traffic (VOC + travel time)	3.6	negative	5.1	negative
+ Generated traffic (VOC + travel time)	9.6	negative	10.1	negative
+ Diverted traffic (VOC + travel time)	9.7	negative	10.2	negative
+ Short-term local labour	9.9	negative	10.3	negative
+ Growth in regional economic output	21.1	353.9	21.2	279.5

38. *Incremental benefit analysis:* The purpose of the incremental benefit analysis (results presented in Table 5) is to show how each of the identified and quantified benefit side components add to the final estimate of the EIRR and the value of the project's net benefits. The underlying assumptions for the different benefit side components are as follows:

39. South Sudan is emerging from protracted civil war and the current level of the traffic volume is expected to be as low as the stage of the economic and social development. Therefore, on the basis of the Vehicle Operating Cost (VOC) and time savings to traffic alone the project would not be expected to be viable at this time. This is quite understandable and common feature for all road corridors in South Sudan. However, as a post conflict country the surge of development activities is expected to generate significant traffic. When the benefits to generated and diverted traffic are included along with normal traffic the economic rate of return improves quite significantly, as it would be expected as reduced travel time, lower costs and improved security would suggest. Adding the benefits in economic growth brought about by improved connectivity adds substantially to the suitability of the investment project.

40. *Diverted traffic:* Improving the safety and security along the road and the ability of transit traffic to maintain higher average speeds over longer distances over what is essential flat to gently rolling terrain will attract traffic from competing routes. Traffic originating in Uganda would not divert to the project road as to do so would add a significant number of kilometers to their current shorter journey. The project road should however, attract Kenyan based traffic coming from Eldoret such as fuel tankers, Nairobi and container traffic from the port of Mombasa even though the route via Nimule would be shorter by 158km.

41. Travelling to Juba via Nimule means travelling through Uganda's winding roads before having to negotiate up to 90 km of a very poor, unpaved road that can be impassable at times during the wet season. Whereas, travelling the additional 158km over a marginally longer but straighter road and over flatter terrain would act as a great incentive to freight forwarders and cargo owners alike to use the project road. Empirical research into driver behavior²¹ has shown

²¹ Feasibility Study Consultants prediction based on experience from similar studies conducted in Afghanistan.

that drivers will prefer to travel marginally longer journeys on good roads rather than use shorter poorer standard gravel roads with higher risk of damage and greater personal discomfort. Most importantly, traffic through the Nadapal border has to cross only one border post and one transit regime, which have significant advantage in saving travel time and reducing costs related to crossing border posts, road blocks/customs and security control points along the corridor. Based on UN logistics data, presented in the feasibility report for Juba-Nadapal road, the travel time from Mombasa to Juba is shorter by one up to two days for a journey via Nadapal, as compared to a journey through Uganda/Nimule. Truck drivers have to carry only one foreign currency with them to pay road tolls etc. that can be exchanged at banks and foreign exchange dealers at or just before the border. The development of these service industries tends to attract the trucking sector if the services are provided efficiently and are competitively priced. It is this incentive that should outweigh the slightly longer journey.

42. *Short-term local labour:* It is likely that Contractors will employ between 150 and 200 day labours sourced from local communities. Locally employed labour will include both men and women to undertake unskilled manual work. It is anticipated that these workers will receive at least USD5/day working a six-day week during the non-harvest and planting seasons. Local employment puts needed income directly into the local economy and employing women ensures that wages go directly to looking after the younger children and children of school age. It is estimated that up to USD1.7 million will be earned in wages each year by local labour amounting to USD2.8 million in present value terms.

43. *Regional development – Growth in regional economic output:* Currently, the agricultural land in the Road Zone of Influence (RZI) remains for the most part non-productive except for a few local communities that produce sufficient food to meet their immediate needs. Cattle ranching, towards the eastern end of the road appears to be more for cultural and social reasons rather than for economic reasons. There are numerous other development programs underway to revive the agriculture, forestry, tea and coffee sectors. Demonstration farms are being operated in Torit County and in time will be established in other areas identified for development.

44. Other development potential is the manufacturing of cement, production of whitewash, mining of gold to a limited extent, the possibility of oil though this has yet to be determined and the mining of semi-precious stones. Other products once produced in the region such as forestry, fishery, tea and coffee will be redeveloped following the opening up of the opportunity for regional and international market. It is estimated that the present value of up to USD645.5 million in regional economic growth will be added to the regional economy over the life of the project.

Sensitivity Analysis

45. A summary of the sensitivity analysis is presented in Table 6.8.

Table 6.8: Summary of sensitivity analysis (DSD/DBST)

Parameter	Change in parameter
Project EIRR	21.2
1. Construction cost + 20%	20.3
2. Construction cost – 20%	22.5
3. Traffic benefits + 20%	22.1
4. Traffic benefits – 20%	19.6
Worst case scenario 1+4	19.5

Updated Economic Analysis

46. The cost estimate based on the final detailed engineering design has shown an increase over the preliminary estimate made at initial feasibility study. Details of cost estimates with comparison is presented in the *Technical Section*, blow. The final design considered the option of upgrading to AC is appropriate, and the economic analysis was updated based on the new cost accordingly. Even though the detailed design construction cost represents an increase of some 27.5 percent in comparison to the feasibility study (DSD/DBST) cost it is nevertheless expected to result in only a small reduction in EIRR, to a value of around 20.0²². This is supported by the switching value analysis, which showed that the construction cost would need to more than double before the switching point is reached.

LODWAR-NADAPAL ROAD

Traffic Survey and Forecast

47. The Consultant²³ that has carried out the feasibility study has estimated the normal diverted and generated traffic levels, for the Nadapal to Lodwar road. A summary of the traffic levels estimate is presented in Table 6.9.

Table 6.9 Normal, Diverted and Generated Traffic

Vehicle Type	Normal Traffic (AADT)		Diverted Traffic (AADT)		Generated Traffic (AADT)	
	Lodwar - Lokichogio	Lokicho-Nadapal	Lodwar – Lokicho-	Lokicho-Nadapal	Lodwar – Lokicho-	Lokicho-Nadapal
Motor Cycle	276	163			14	8
Cars	58	131			3	7
Pickups, jeeps, vans	175	151			9	8

²² Juba-Nadapal Road Final Detailed Engineering Design Report, Final Cost estimate and Updated Economic Analysis, June 2011.

²³ Sheladia Associates Inc. (USA) in association with Abdul Mallick Associates (kenya)

Matatus /minibuses	35	10			2	1
Buses	5	-			20	20
Light Goods Vehicle (LGV)	19	17			1	1
Medium Goods Vehicles – MGV (2 axles)	29	11	1	1	1	1
Heavy Good Vehicles - HGV (3&4 axles)	35	24	1	1	2	1
Heavy Good Vehicles - HGV (5,6 & 7axles)	10	12	34	34	76	76
Others (Tractors, etc.)	2	1	-	-	-	-
ADT (with motor cycles)	644	520	36	36	127	123
ADT (without motor cycles)	368	357			113	115

Source: Nadapal- Lodwar Feasibility and Preliminary Design Report, May 2012

48. The normal traffic, the existing traffic on the project road that would continue using the road whether it were improved or not, is calculated based on traffic surveys carried out in two segments: (i) Lodwar to Lokichogio, and (ii) Lokichokio to Nadapal. The survey data was adjusted for seasonal traffic variation, based on the historical traffic record of the Kenyan National Highways Authority (KeNHA). This takes into consideration the low traffic season and high traffic season of the region. It was established that at the time of undertaking this traffic survey, the ADT was about 10 percent below AADT.

49. The section towards Nadapal has more cars, jeeps and 4WDs, which are mostly having Sudanese and Ugandan registration. These are used for transportation of passengers and for transportation of consumer goods. Sudanese living near the border at Nadapal obtain a lot of their commodities from Lokichogio including fuel for vehicles. Public buses and most matatus do not travel beyond Lokichogio due to the poor state of the road. Motorcycles are also a major means of public transport comprising about 31 percent in the section closer to the border.

50. It is anticipated that traffic likely to be diverted to the project road will be derived from the A104 trunk road. This is due to the fact that the heavy commercial vehicles which currently travel to South Sudan using the Uganda route via Malaba will prefer the project road because it is shorter, in terms of travel time, compared to the Uganda route which would result into substantial savings in vehicle operating cost. A traffic survey was done at Malaba, in 2012, to establish the volume of the diverted traffic. The survey comprised 7-day traffic counts and 7-day Origin Destination (O-D) surveys. A total of 644 heavy commercial vehicles were interviewed whose daily sample volume was estimated at 27 percent.

51. From the OD survey, 5.12 percent of heavy commercial vehicles travel to/from Juba, Sudan. Further analysis of the OD data showed that this percentage comprises 0.2 percent, 2.2 percent and 2.8 percent of the medium goods vehicles, heavy goods vehicles (3&4 axles) and heavy goods vehicles (5&6 axles) respectively.

52. Construction of a highway from Lamu port through Lodwar to Sudan is expected to generate heavy traffic volume, which will have an impact on the project road. Thus the traffic that likely to be generated upon completion of the LAPSSSET transport corridor project is assessed as generated traffic. In addition, it is envisaged that significant non-motorized traffic

will convert to motorized traffic. Similarly, some air transport will also convert to road transport, as the passengers and goods transport to the airport at Lokichogio, will be transported by road after the road-upgrading project is completed.

Economic Analysis

53. The Economic Analysis used Highway Development and Management (HDM-4) model. The analysis period was 20 years. For the economic analysis a discount rate of 12 percent was adopted. A salvage value of 20 percent is assumed. Two alternatives: (a) Maintain Existing Road (Base Case); and (b) Reconstruction were compared. The economic analysis result for the reconstruction option is presented in Table 6.10.

Table 6.10 HDM-4 Analysis Results for Normal Run

Investment Option	NPV (US\$ million)	EIRR (%)	B/C ratio
Reconstruction	23.450	14.6	0.351

54. Results of the normal run show that it is economically viable to reconstruct the project road. The EIRR is greater than the discount rate of 12 percent and the NPV is positive which also give a B/C ratio greater than 1.

Sensitivity Test

55. A sensitivity analysis has been done for the reconstruction option, assuming a low traffic growth scenario. As well sensitivity test was carried out for a cost overrun of 20 percent. The results are shown in Table 6.11.

Table 6.11 Sensitivity Test results

	NPV (US\$ million)	EIRR (%)	B/C ratio
Low Traffic Growth Scenario	21.495	14.4	0.321
20 % Cost overrun	-0.629	11.9	-0.007

56. The economic indicators show that the project will be economically viable even if the traffic growth were reduced to the low growth scenario. Findings from the analysis indicate that the EIRR is greater than the discount rate while the NPV is also positive.

57. The NPV value is negative for a 20 percent cost overrun. Similarly, the IRR is less than discount rate of 12 percent with a B/C ratio below 1.0. These imply that if costs were to increase by 20 percent, then the project would not be justified or would be marginally justifiable. This situation emphasizes the need to manage the construction cost in this project to ensure that it will stay economically viable. Any cost overrun should be minimized as much as possible. If possible, the cost increase should not exceed 15 percent.

58. Kenyan economy as a whole will benefit significantly from upgrading of the major regional/ international transport arteries to South Sudan. There will be substantial multiplier effects throughout the Kenyan economy from the transport infrastructure upgrading. Kenya will have enhanced role in the logistics and transport chain between Kenya and South Sudan after creating the new direct access to South Sudan. Moreover, trade between the two countries will increase. The value added of this trade is substantial and rapidly growing as South Sudan develops.

59. Improvement of the road is estimated to result in about 0.3 percent additional growth in Kenya's GDP, the value added would represent about US\$100 million, significantly more than the saving from transport cost savings alone. The improvement of this corridor will contribute in increasing fishing at Lake Turkana, which is currently limited to subsistence consumption. Rain fed agriculture, cattle breeding, and animal husbandry are expected to enhance as a result of improved access to extension services and market.

LODWAR - MARICH PASS ROAD

Traffic Analysis

60. The Consultant²⁴ that has carried out the feasibility study has estimated the normal diverted and generated traffic levels, for the Lodwar – Marich Pass road. The normal traffic that is already using the road without project case (WOP) and which will continue to use the road after improvement was established as a base year traffic based on traffic counts carried out as part the feasibility study. The traffic count was adjusted for seasonal variations. A summary of the normal traffic is presented in Table 6.12. Generated traffic expected to be induced as an additional trips by road users as a result of lowering transport cost is estimated based on trip generation factors, established by the Consultant as shown in Table 6.12.

Table 6.12 Normal Traffic Lodwar- Marich Pass Road

Vehicle Type	Marich Pass-Kainuk 29.35km	Kainuk-Lokichar (Lokori Jctn)- 80.77km	Lokichar/Lokori-Lodwar (km190.7) -80.6 km	Lodwar (km190.7)-Lodwar (km 196.9) – 6.17km	Generated Traffic Factor
Cars/4WD	9	4	4	459	1.6
4x4	50	145	141	773	1.6
Pickup	3	3	2	113	1.5
Matatu	8	12	3	27	1.3
Medium Bus	1	1	0	1	1.2
Bus	8	6	6	11	1.2
Light Goods Vehicle (LGV)	11	16	12	26	1.2
Medium Goods Vehicles –MGV (2 axles)	13	19	29	57	1.0

²⁴ egisbceom International was commissioned to undertake the feasibility study and detailed engineering design for the Lodwar –Marich Pass road.

Heavy Good Vehicles -HGV (3 axles)	29	36	37	55	1.0
Articulated Trucks	22	20	18	15	1.0
ADT- Total	154	262	252	1537	

Source: Lodwar- marich pass feasibility Study and Preliminary Design Report, July 2012

61. *Diverted Traffic*, a traffic that in the WoP situation is using other roads or routes and that with the improvements will divert from its existing route to the project route because of some perceived advantage brought about by the improvements due to faster travel times or fewer administrative or border delays, and absence of non-tariff barriers is calculated by the Consultant. The Consultant has conducted OD surveys and has estimated diverted traffic using gravity model.

62. The trade model run by the feasibility consultant indicated that in 2009 the traffic from Uganda to South Sudan was about 1,714 metric ton per day (mt/day), converted to be about 87 trucks. The gravity model run by the Consultant predicted that from the traffic routed through Uganda for logistics reason most of this could divert to the project road provided that the logistical framework along the north-western Kenya and South Sudan itself is enhanced. Further, the OD survey indicated that the transit traffic from Mombasa to Juba in 2012 was about 37 vehicles, which is about the same as the estimates by the other feasibility studies carried out for the upgrading of the Juba-Eldoret corridor.

Economic Analysis

63. The Economic Analysis used HDM-4. The analysis period was 20 years. Analysis has been done for the "With" and "Without" project cases. The project road has already deteriorated from paved to gravel or earth road due to neglect of maintenance. No paved road maintenance can be economically carried out on it. Therefore, the reconstruction option is taken forward. For the economic analysis a discount rate of 12 percent was adopted. A salvage value of 20 percent is assumed.

64. The Consultant has considered four pavement designs based on two traffic classes and two pavement types, namely: Traffic classes T1 and T2 and pavement Type 5 and Type 11. The HDM-4 first runs were carried out to determine the optimum pavement design for each of the four sections: Section 1, Section 2, Section 3 and Section 4. The analysis was also carried out with a single pavement design throughout. The economic analysis result for the reconstruction option is presented in Table 6.13.

Table 6.13 HDM-4 Analysis Results for Normal Run with Optimum Pavement Type

Section	Optimum Pavement Type	EIRR (%)
Section 1	T2 Type 11	33.2
Section 2	T2 Type 5	35.1
Section 3&4	T2 Type 5	35.4
Pavement Mix (two standards)	T2 Type 11 and T2 Type 5	41.3
Pavement Mix (one standard)	T2 Type 5	41.1

Source: Marich Pass- Lodwar Feasibility Study, July 2012

Sensitivity Test

65. A sensitivity analysis has been done for the optimum pavement alternative (Section 1 designed for T2 Type 11 and Section 2, 3 & 4 design for T2 Type 5). The analysis was done for worst-case scenario, for decrease in benefits of by 20 percent and a cost overrun of 20 percent. The results are shown in Table 6.14.

Table 6.14 Sensitivity Test Results

	EIRR (%)	NPV (US\$ million) @12 %	B/C ratio
Base case	41.3	410.35	2.78
+20% costs & -20% benefits	26.7	236.07	1.85
Low Traffic Growth Scenario (25% lower than the medium growth)	30.8		
High Traffic Growth Scenario (15% higher than the medium growth)	46		
Low Traffic Growth and 20% cost overrun	23.1		

Source: Marich Pass- Lodwar Feasibility Study, July 2012

66. In general the project to improve the Marich Pass to Lodwar section is highly recommended. The benefits accrue from roughness improvements and particularly from avoidance of border delays.

MARICH PASS - LASSERU/ELDORET ROAD

Traffic Analysis

67. The Consultant²⁵ engaged to undertake the feasibility study and engineering design has estimated the normal diverted and generated traffic levels, for the Lasseru – Marich Pass road. The normal traffic that is already using the road without project case (WOP) and which will continue to use the road after improvement was established as a base year traffic based on traffic counts carried out as part the feasibility study and preliminary design. The traffic count was adjusted for seasonal variations. A summary of the normal traffic is presented in Table 6.15.

Table 6.15 Annual Average Daily Traffic (both directions)

Survey Station	Direction/Section	Motor Cycle	Car	Pick-up, 4x4	Matatu & minibuses	Bus	Light Truck	Medium Truck (2 axle)	Heavy Trucks (3&4 axle)	Heavy Trucks (5&6 axle)	Others (Tractors etc)	Total
A104/ B2 Junction	Eldoret	143	1,226	1,030	1,773	185	106	477	303	1,931	30	7204
	Turbo	85	625	533	840	109	47	256	191	1,796	21	4502
	Kitale	94	684	549	953	85	72	240	123	147	21	2968
Nangili	Moi's bridge-Malitisa	344	638	788	585	62	143	176	111	114	44	3005
Moi's	Eldoret-	1,206	663	561	805	56	169	357	234	212	127	4,389

²⁵ KOCKS CONSULT GMBH in association with MAX & PARTNERS Ltd. and SURETECH Ltd., referred as the Consultant, was commissioned by the Government of Kenya through the Kenya National Highways Authority (KeNHA) to undertake the feasibility study and detailed engineering design for the Lasseru-Marich Pass road.

Survey Station	Direction/Section	Motor Cycle	Car	Pick-up, 4x4	Matatu & minibuses	Bus	Light Truck	Medium Truck (2 axle)	Heavy Trucks (3&4 axle)	Heavy Trucks (5&6 axle)	Others (Tractors etc)	Total
Bridge	Kitale											
A1/ B2 Junction	Kitale	4,285	3,837	2,613	2,911	222	73	581	204	175	83	14985
	Eldoret	2,492	2,273	1,475	1,443	116	50	374	141	130	51	8544
	Webuye	2,436	2,047	1,506	1,582	128	49	346	106	78	79	8359
A1/ C45 (1) Junction	Kitale	5,053	5,268	3,095	2,508	191	37	534	125	66	31	16909
	Eldoret	3,725	4,277	2,598	2,446	187	30	486	117	68	26	13961
	A1	2,152	1,386	759	123	12	20	77	17	5	6	4558
A1/ C48 (1) Junction	A1	486	112	68	13	6	6	10	6	5	2	715
	Kitale	85	21	13	3	2	1	0	1	0	1	125
	Cherangany	401	91	55	10	5	5	10	6	5	2	590
A1/ C48 (2) Junction	A1	5,140	2,671	1,526	1,630	100	109	137	85	53	15	11467
	Kitale	2,756	1,397	922	1,120	74	79	108	68	32	11	6566
	Cherangany	3,032	1,505	745	587	42	51	54	35	26	12	6090
Maili Saba	Kapenguria	565	373	498	486	25	75	127	91	63	50	2347
Makutano	Kapenguria	1,543	1,257	853	44	39	35	108	64	27	42	4013
Kapenguria	Ortum	696	239	371	25	21	45	68	70	23	16	1574
Ortum	Marich	315	48	190	17	27	53	54	69	55	10	838
Marich Pass Junction	Lodwar	43	5	55	3	9	11	23	31	14	0	193
	Sigor	99	2	22	5	0	3	9	2	2	0	135
	Ortum	44	4	54	3	1	14	5	2	0	0	128

Source: Marich Pass – Lasseru Preliminary Design Report, September 2012

68. *Diverted traffic:* The assessment of the Consultant was that when parallel routes exist, traffic would usually travel on the quickest and cheapest route, although this may not necessarily be the shortest. Thus, given the road network in the project area, diverted traffic will likely come from the A104 road to B2 road. This will most likely be composed of Heavy trucks going to Southern Sudan and currently have to go through Uganda owing to the poor state of the project road. The Consultant based on Origin-Destination Survey estimated that 17 heavy vehicles per day destined to South Sudan would be diverted to the Lasseru-Marich Pass road. The traffic count appears to be about half of the estimate done by other consultants undertaking feasibility study along the Eldoret-Nadapal- Juba road. This may be related to the timing of the OD survey, which was carried out in mid-2012, the time South Sudan has to pass through challenging austerity measures due to the disruption the oil revenues. The other surveys for Lodwar-Marich Pass and Lodwar-Nadapal road were carried out at the beginning of the austerity measure and are expected to represent worst-case scenario.

69. *Generated traffic:* converted and induced traffic which occurs due to the improvement of the project road was estimated by the Consultant. The Consultant forecasted the generated traffic using demand relationships. The price elasticity of demand for transport measures the responsiveness of traffic to a change in transport costs following a road investment.

70. The average elasticity for transport and storage versus GDP was established to be 1.1. This means that for every 1 percent growth in GDP, the transport sector grew by 1.1 percent during the period under review, 2007 to 2011. Generated traffic for the project road was therefore estimated from the product of average elasticity for transport & storage versus GDP. Estimated growth in generated traffic was established to be 4.6 percent, as reported in the traffic study.

Economic Analysis

71. The economic analysis is based on cost benefit analysis by comparing the “with” and “without “ project scenarios over a period of 20 years, using the Highway Development and Management Model (HDM- 4). A discount rate of 12 percent, a standard conversion factor (SCF) of 0.80 for converting financial costs to economic costs, a residual value of 15 percent and rehabilitation period of 4 years. The base year is 2017. The economic costs consist of (i) the capital investment costs and (ii) the routine and periodic maintenance expenses. The benefits consist of savings in (i) vehicle operating costs; and (ii) motorized traffic travel time for passengers and cargo. The measures of project worth used are the EIRR, B/C ratio and NPV. A summary of the economic analysis is presented in Table 6.16 below.

Table 6.16 HDM-4 Analysis Results

With Project Alternative		NPV (US\$ million)	EIRR %	B/C Ratio
Reconstruction of Lesseru-Kitale - Marich Pass (B2/A1) road		321.349	31.4	2.064
Sensitivity test and risk analysis	Low Traffic Growth Scenario	218.630	27.1	1.404
	20% Cost Overrun	290.209	27.2	1.553

Annex 7: Environmental and Social Safeguard
AFRICA: Project Name: South Sudan- Eastern Africa Regional Transport, Trade
and Development Facilitation Project (First Phase of Program) (P131426)
(SS-EARTTDFP)

A. Social (including safeguards)

1. The project triggers two social safeguards policies: Indigenous Peoples OP/BP 4.10 (Indigenous Peoples) and Involuntary Resettlement (OP/BP 4.12). This safeguards annex focuses on the instruments prepared for the Juba-Nadapal road in South Sudan.

Social Safeguards

OP/BP 4.10 (Indigenous Peoples):

A.1 Social Assessment of the Juba-Nadapal Road

Purpose of the Social Assessment (SA)

2. The vast majority of people in the project area meet the criteria for OP 4.10. Per the requirements of the policy, it is not required to prepare an Indigenous Peoples Plan. However, a Social Assessment needs to be prepared, consulted upon and disclosed. The findings of the Social Assessment – including the process used in fostering free, prior, and informed consultations leading to broad community support of the project; a grievance redress mechanism; addressing adverse impacts and/or providing benefit-sharing; and, establishing monitoring, evaluation, and reporting during implementation relating to the project-affected communities – have been included in the project as social risk mitigation measures and benefits.

3. The first purpose of the SA was to determine the characteristics of the existing social and bio-physical environments that may be impacted by this project. The second purpose is to provide the basis for an action plan to ensure that the project meets the requirements of the policy. As consultations continue through the life of the project, there may be additional commitments in the action plan.

Socio Economic Characteristics

4. The Nadapal - Juba Road is an interstate road that links The Central Equatoria and Eastern Equatoria states. The entire road covers approximately 341.2 km traversing undulating terrain. The road passes through major townships and trading centres and crosses six counties with a total population of 838,855. Along the road there are numerous villages alongside the road and with a varying population. The counties are inhabited by Toposa, Buya, Langi, Lotuka, Lukoya and Bari communities. The professional/economic activities of the affected communities are summarized below:

Tribe	Ethnic Group	Location /Town	Profession/Economic Status
Buya	Nilo- Hamites	Budi County-Loriyok	Grazing
Toposa	Nilo -Hamites	Kapoeta South; North – Nadapal; Narus - Napotpot;Korip;	Hunting game meat
Langi	Nilo -Hamites	Ikwotos-Lobira	Subsistence farming; hunting game meat
Lotuka	Nilo- Hamites	New Kenya;Kiyala;	Subsistence Farming; hunting game meat
	Nilo -Hamites	Narus ;Torit	Administrative officers;shop-keeping
Lukoya	Niltics	Kudo;Lyangari;Nhuelere	Subsistence farming; hunting game meat; charcoal burning; shop-keeping; grass selling
Bari	Nilo- Hamites	Juba County	Subsistence farming

5. **Impact of project on traditional way of life.** The tribes who either live beside or move around the proposed road rehabilitation, are mostly agro-pastoralists, depend on subsistence farming, livestock rearing and/or hunting wild animals. None of these livelihood activities, or their cultural and traditional way of life is affected by the rehabilitation of the road as almost all the farming, grazing and hunting activities are conducted at some distance from the road. The social assessment determines that there will be no loss of the cultural historical reference of the pastoralist, hunters and farmers as all these groups are settled at a considerable distance from the vicinity of the road. In the consultations, the local resident have raised some concerns about maintaining their traditional livelihoods once the road is built, but they have been generally very supportive of the road rehabilitation, as it would allow them to transport themselves and their produce to market more easily.

Potential harms of the project to local communities

6. The potential adverse impacts associated with the project include: (a) Frequency of accidents, among vehicles and with other users of the road; (b) Loss of land predominantly used for agriculture; (c) Loss of numerous housing structures within markets and towns, as over 80 percent currently exist within 20 meters on either side of the proposed center of the road; (d) Loss of shade for community meetings and income as a result of felling of numerous trees including mango trees on road side; (e) Loss of cultural and religious properties (sacred trees, graves) identified along the road; (f) Interference with social amenities (schools, health facilities and boreholes) most of which are very near to the road project; (g) Potential loss of lives and livestock due to speeding vehicles during and after construction; (h) Large scale clearing of land and intensified demand for forest products for building materials and fuel by returnees; (i) Increased STDs including HIV/AIDs infections due to increased number of construction workers and other road users; and, (j) Overstretching of few social infrastructures available in the area (house rent rise, water shortage and sanitation problem).

7. Overall, land acquisition and resettlement impacts of the project are modest with minimal risks associated with losses to lands and homes. Mitigation for these adverse impacts has been

reflected in the ESMP and RAP and they are as follows: (a) Minimize land acquisition; (b) Adequate compensation for loss of land; (c) Planting of shade and fruit trees along the road; (d) Minimize unnecessary felling of fruit trees; (e) Demolish structures with full permission and as per conditions set by the community and relocation in full conformity with the wishes of the community; (f) Provide facilities for pedestrians and non-motorized traffic; (g) STDs sensitization campaigns training and distribution of awareness materials for information, education and communication on HIV/AIDs; and (h) Improved security and use of non-forest products for construction materials.

Potential benefits to be shared with the local communities

8. The upgrading of the road will provide greater opportunity to the local farmers and pastoralists to have better access to the domestic and regional agricultural markets. The farmers and pastoralists would have the opportunity to be suppliers of agricultural products; processing plants and business; hence these will help local products to be sold at market prices and increase household income; contributing to improved livelihood of the local community.

9. The construction and maintenance works will also provide, in the short term, income generating jobs to the local people. The works contracts will have provision for basic services; such as boreholes for potable water for PAPs. Women's participation in the project is guaranteed, as the project will provide employment for them (e.g. basic construction, clearing).

Public Participation and Consultation

10. The SA process has involved the participation of all stakeholders, especially the project affected persons and communities along the project corridor. The public consultations have taken the form of meetings and oral interviews with community opinion leaders. In each of the Payams/Bomas, the SA team conducted key informant interview with Payam administrators, Sultans, tribal chiefs and sub-chiefs (Boma leaders' paramount chiefs), rainmakers, landlords and opinion leaders. Focus group discussions were also held with youth, business and women representatives. The public response to the consultation shows that there has been free, prior, and informed consultation leading to broad community support of the project. Indeed, the local communities want the project to be completed as soon as possible. The project-affected communities indicated there were no conflicts among them and they did not believe the project would cause any conflict in the future.

11. The consultations included the various tribal groups living along the project. Since the different tribes have different sources of livelihoods, the consultation focused on areas and resources specific to the means of livelihood for the various tribal groups that may potentially affect the means of livelihood for the tribes. Specifically, the agriculturalist tribes whose main occupation is subsistence farming were concerned about the loss of their agricultural lands.. They were assured that all Project Affected People (PAPs) who will lose land, homes or businesses are being compensated, as reflected in the RAP. They were assured that no additional land will be acquired that will affect their source of livelihood.

12. The pastoralist tribes, whose concerns were related to loss of cattle because of the impact of accidents from high volume and speed traffic when the road is upgraded, were assured the road would have adequate road safety and calming measures, as well as crossing paths for their cattle. As for the loss of grazing pastures, the consultations revealed that, unlike the agriculturist tribes, the majority of the pastoral tribes live far away from the road corridor and hence the construction will not encroach the grazing pastures during the road upgrading work.

13. One of the major concerns from the communities during public participation was regarding the construction of workers camps. A request was put forward to the contractor(s) to put up permanent structures for the workers so that after completion of the project the structures will be donated to the community to be converted to community facilities, such as schools, hospital and Government offices among others. The GRSS will work with the contractors to build some more permanent structures that could be used by the community once the road construction is completed. The project will ensure an ongoing process of free, prior and informed consultation leading to broad community support for the project as it is implemented.

Grievance Redress

14. The Project Management Team (PMT) shall set up a Grievance and Redress Committee to receive and mediate compensation disputes. Grievances should be settled amicably whenever possible, with the possibility of negotiation for lost land or other assets. The Committee shall be composed of a representative of each State, County, Payam and Boma together with Officials of the PMT. It is expected that this Committee will be able to amicably settle any claims and disputes, with a particular focus on land issues.

15. The traditional system is present in the communities and will operate according to the customary laws and practice of the locality to resolve disputes related to land. Per the customary law, chiefs establish a community representative (sometimes called a “community land surveyor”) to resolve disputes at customary courts, starting at boma level, and on to the payam and county level. Chiefs handle all disputes regarding customary land and are supposed to also be involved in land decisions under both statutory and customary regimes.

16. In situations where the beneficiary is still not satisfied with the amount of compensation payable to him/her, the PAP can seek redress from the Civil Court in accordance with the “Civil Procedure Act” to the Highest court as is common practice in South Sudan. However, the property cannot be demolished until the issue is resolved. Compensation will only be paid to a PAP after receiving his/her written consent. All grievances will be settled locally through the GRM. No legal costs will be borne by the project.

17. In situations where the complainant is still not satisfied with the outcome of the grievance redress procedure, he/she can seek redress from the court at the Traditional / Boma and County level, as well the High court. However, no property can be acquired or asset demolished until the issue is resolved.

Social Monitoring and Management Plan

18. The table below sets out the key actions that have been agreed between the GRSS and the communities. The measures pertaining to environmental and resettlement issues are also included in the ESMP and RAP, respectively. Monitoring is a long-term process, which should begin at the start of construction and continue throughout the life of the road project. Its purpose is to establish benchmarks so that the nature and magnitude of anticipated social impacts can be continually assessed. So monitoring involves the continuous or periodic review of construction and maintenance activities to determine the effectiveness of recommended mitigation measures.

19. The responsibility for the incorporation of mitigation measures for the rehabilitation of the roads lies with the Supervising Engineer, who must ensure that the Contractor implements all specified mitigation measures. The MTRB through the supervising engineer and the Environment officer will have to oversee the supervision of the road during construction to ensure that the contractor conforms to the mitigation measures. Social monitoring should adopt a cross-sectoral approach to ensure that mitigation measures are well implemented.

20. Simple monitoring systems should be set up during construction by the Supervising Engineer and Contractor and during operation by the MTRB, so that potential social and environmental problematic areas can be detected well in advance and the appropriate remedial action taken. Many of the potentially significant negative impacts identified in the SA relate to the construction and operation phase of the project. Mitigative and support measures are therefore, best achieved through the incorporation of suitable clauses in the contractual documents, which are enforced by the Supervising Engineer.

Social Management and Monitoring Plan

Socio Aspect and Impact	Proposed mitigation and Aspect for Monitoring	Responsibility for intervention and Monitoring During Design, Construction and Operation Period	Responsibility for Mitigation, Monitoring and/or Maintenance During operation	Monitoring Means	Recommended Frequency of Monitoring
Land Acquisition Impact: Loss of predominantly agricultural land by owners of acquired land Loss of numerous housing structures as over 80% linearly exist within 20 meters on either side of the proposed road centre.	Minimize land acquisition; Adequate compensation (RAP); Land is communally owned, so communities have agreed to provide land-for-land compensation; cash compensation will be for relocation and construction of structures; Demined areas will be identified as farm sites to enable residents to move their farm away from the road project.	GRSS	Project GRSS	Household farm size; new resettlement sites	Annually
Impact: Loss of shade trees for community meetings and income as a result of felling of numerous trees dominated by mango trees on road side	Planting of shade and fruit trees in the resettlement sites; minimize unnecessary felling of fruit trees	Communities	Project	Number of new trees planted	Annually
Impact: Loss of cultural and religious properties (sacred trees,	Demolish with full permission and as per conditions set by the	GRSS	Project	Community support level	After implementation

Socio Aspect and Impact	Proposed mitigation and Aspect for Monitoring	Responsibility for intervention and Monitoring During Design, Construction and Operation Period	Responsibility for Mitigation, Monitoring and/or Maintenance During operation	Monitoring Means	Recommended Frequency of Monitoring
churches, cemeteries, etc.) identified along the road	community Relocation/reconstruction in full conformity with the wishes of the community				of every phase
Loss of livelihood, such as businesses; Impact: Interference with source of livelihood(some businesses are very near to the road project	Relocation of businesses, pushed back from the RoW along the road, but within the same location through the implementation of the RAP.	GRSS	Project PIU	Site visits and interviews with the PAPS.	Bi-annually
Traffic and Safety Impact: Loss of lives and livestock due to speeding vehicles during and after construction	Sensitization of the community along the road regarding speed calming facilities for pedestrians and non-motorized traffic, especially also at the migratory animal route crossing Set up and maintain all traffic safety measures	Contractor	Project PIU	Traffic records on number and nature of accidents.	Monthly
Influx of Project workers Impact: Overstretching of few social infrastructures available in the area (house rent rise, water shortage and sanitation problem)	Camp sites to accommodate workers at a distance from the community residences and towns. Provision of good and sufficient water supply, sanitation and waste disposal facilities in camp sites. In some cases, the camp sites will include more permanent structures that can be converted to community structures (e.g. schools, clinics, community facilities, etc.) after construction is completed.	Contractor Communities	Project	M&E visits.	Monthly
Impact: Increased STDs including HIV/AIDs infections due to increased number of commercial sex workers from	STDs sensitization campaigns. Training and distribution of awareness materials for information, education and	GRSS – MOH	Project PIU Project PIU	Monitoring number of sensitization programs	Monthly
Juba, Kenya and Uganda	communication on HIV/AIDs Distribution of condoms, and encouraging status testing.		Project PIU	Number of residents visiting Voluntary Counseling and Testing Centres	
Labour requirements Impact: Increased employment opportunities and skills acquisition	Priority to be given to local communities in all vacancies; Special efforts to offer employment to women; Skills improvement and on job training programs to locals	GRSS & Contractor	Project	Employment rate	Annually
Security of project workers	Open door policy to facilitate information flow to and from host communities to enhance cordial relationship	GRSS	Project	Acceptance level	Monthly

Socio Aspect and Impact	Proposed mitigation and Aspect for Monitoring	Responsibility for intervention and Monitoring During Design, Construction and Operation Period	Responsibility for Mitigation, Monitoring and/or Maintenance During operation	Monitoring Means	Recommended Frequency of Monitoring
	Each County Commissioner to be responsible for security on sections of the road within their Counties		County	Number of reported cases of insecurity	Weekly
Operation stage Impact: Large scale clearing of land and intensified demand for forest products for building materials and fuel by returnees	Improved governance. Control and management of land and forest products Encourage use of non-forest products construction materials	GRSS & Contractor	State	Settlement patterns Percentage change in forest cover	Annually
Impact: Reduced transportation cost and availability of high class transportation facilities	Improved business and lifestyle of the communities.	Contractor	State	Percentage change in transport cost	Monthly
Impact: Rapid economic growth of East Equatoria State	Improve security Promote private property rights	GRSS	State	Economic growth rate	Annually
Impact: Reduced road efficiency and effectiveness if it is not maintained	Road maintenance program	GRSS	State	Maintenance reports	Annually

A.2 OP/BP 4.12 (Involuntary Resettlement):

21. The road upgrading will follow the existing alignment, and the minor widening realignment will be within the existing right-of-way. This may require expropriation of some farm land and stepping back of some road side businesses. Under the first project the road upgrading will be in South Sudan territory and there will be no construction activity on the Kenyan side. The RAP for the Juba- Nadapal road upgrading has been prepared and disclosed in country and by the Infoshop on November 11, 2013.

22. The total number of project affected household structures is 218. The estimated number of people who live in the affected families is 1,218. In addition, a total of 145 small businesses along the road project will be adversely affected and they accounted for more than 30 percent of household incomes. The income loses that will be directly attributable to loss of land especially on business plot is expected to be high and consequently adequate mitigation measures have been provided for it in the RAP. All affected immovable assets have been inventoried. Accordingly, the project requires the acquisition of 375 hectares, claimed by 517 individuals, mostly open land within the right-of-way. Because of the linear nature of the project, this small amount of land is spread along 340 km of the entire length of the road. The affected people will be provided replacement land for free by the communities. The valuation report contains detailed land use, names, location and addresses of affected landowners. Summary of the affected structures, trees and farm lands is presented in Table 3.11.

Table 3.11 Summary of Project Affected Structures, Trees and Farm Lands

Type of structure	Permanent	Semi-permanent	Temporary	Total
Business Structures	13	67	65	145
Households Structures	3	30	185	218
<i>Tukuls/residential houses</i>	3	30	138	171
<i>Animal Shed</i>			5	5
<i>Cooking Shed</i>			42	42
Total structures	16	107	250	363
Trees				28
Farmlands Claimed by 517 individuals, measured in hectare				347

B. Environmental Safeguards

OP/BP 4.01 (Environmental Assessment); OP/BP 4.04 (Natural Habitats); OP/BP (Physical Cultural Resources):

23. The project triggers OP/BP 4.01 (Environmental Assessment), OP/BP 4.04 (Natural Habitats), and OP/BP Physical Cultural Resources (4.11). The Environmental Assessment (EA) category for this project is assigned to be Category B, as the project is focused on rehabilitation and upgrading of roads following the existing alignment and the road works are not expected to have significant adverse environmental and social impacts. The ESIA for Juba- Nadapal road has been prepared, consulted upon, and disclosed on November 11, 2013.

24. New quarry sites have to be identified and developed to extract material for the road construction. The road upgrading work may require cutting some trees. Some spots of swampy areas may exist alongside the road, in particular this problem gets pronounced during the rainy season, as along some parts of the road standing water creates ponds and marshlands. The road upgrading project involves widening and raising the level of the road, within the existing right-of-way. The site and services for the export processing zones and the rest stops would be provided in open spaces, not occupied by people and cause no resettlement. Any potential negative impact on the environment will be assessed during phase one and mitigation measures would be included in the civil works contract, as the site and services would be carried out at a later stage. The roads to be upgraded will follow the existing alignment and remain within the existing right-of way, hence limited adverse environmental impact.

25. The proposed project is not anticipated to harm any sites that are historically or environmentally sensitive. The most important negative environmental and social impacts along the entire road length (340 km) are likely to be soil erosion during earthworks and construction of structures, dust pollution, removal of light vegetation, and disposal of solid wastes, impact on occupational safety to construction workers and the nearby community. Cultural heritage resources are not yet fully known, but some road works may be located in the influence area of some sites. Graves could be located in the right of way. Therefore, considering the likelihood of unforeseen impacts on known and/or unknown cultural resources including graveyards during construction, the Physical and Cultural Resources (OP/BP 4.11) is triggered. The ESIA includes guidelines and measures for the identification, protection and mitigation of chance finds of

cultural resources and grave yards. “Chance finds” procedures will be included in activity design and included in the environmental and social safeguards provisions in the contractors bid document.

26. The ESIA indicates that some unexploded landmines on either side of the existing road may exist, and this could potentially pose security and safety issues. Due to the presence of unexploded landmines on either side of the existing road, the option of constructing new road along the existing one is excluded, and this could also be a potential high security and safety issue during construction. Thus, the Government will ensure the clearance of landmines along the entire proposed road section where the landmine impact is expected.

27. The proposed program will support the construction of a fiber optic cable alongside the road from Juba into Kenya to bring enhanced international internet connectivity into South Sudan for the first time. Given the installation of the proposed fiber optic cable is within the right of way of the proposed road upgrading work, the anticipated environmental impacts would be encapsulated in the proposed upgrading works. Therefore, any negative impacts generated from the installation activities of fiber optics cable would be addressed through implementation of the recommended mitigation measures indicated under Juba-Nadapal ESIA and ESMP reports.

28. The ESIA also confirms the indicated potential impacts can be easily mitigated through the sound implementation mitigation measures recommended under the ESIA study report. In addition to this the proposed project has prepared a standalone ESMP to ensure avoiding or minimizing environmentally-friendly implementation of the proposed road project.

29. A Bank safeguards team has visited the proposed road corridor in July 2013. In the South Sudan territory no significant irreversible negative environmental impact will be caused due to the road upgrading. There are no significant wildlife habitats reported to exist in the proposed road corridor and no endangered animal species have also been identified that will be affected by construction activities. The South Sudan Ministry of Tourism and Wildlife Conservation (SS-MoTWC) has also confirmed that the proposed road does not traverse through any one of the conservation area in South Sudan. However, there is wildlife crossing corridors particularly around Kidepo Valley (from Kenya, Ethiopia and Uganda to Nimule National Park, Kidepo reserve area). To minimize and/or avoid the possible impact on impediments of wildlife crossings and other related impacts, in the future MTRB in consultation with SS-MoTWC would introduce risk mitigation measure to be implemented during and after construction works. These are speed/traffic calming structures (bumps/humps, sidewalk extensions, raised medians, etc.); placing traffic signs, reduce vehicle speed, posted Speed Limit; post advisory speed limit and Wildlife Warning Signs; regular consultation with nearby communities and raise awareness; record keeping of any incidents on wildlife, wildlife crossing time and nature of wildlife; and develop and enforce traffic safety plan.

30. The PMT of MTRB of South Sudan will be responsible for following up environmental and social aspects of the program on the South Sudan side. The PMT has an Environmental Officer and new Social safeguards Officer will be recruited. The PMT has been implementing Bank projects and familiar with the Bank Safeguard policies and principles. To strengthen the

PMT a consultant Environmental Specialist and Social Safeguards Specialist will be provided under the program.

31. Furthermore, to avoid adverse negative environmental and social impact, during the road upgrading works, the ESMP will be incorporated in the contract documents. In addition, every person affected by the works has to be relocated and/or properly compensated according to Bank policies. All works contracts will have a provision of about three percent of the contract amount for environmental and social impact mitigation measures. The provision is exclusive of costs related to land acquisition and compensation of project affected people, which shall be borne by the two Governments. Compensation will be paid before the commencement of the works.

32. *Alternatives considered minimizing adverse safeguard-related impacts:* Initially, relocating the entire Juba-Nadapal section was considered; however, due to the risk of land mines it was agreed to follow the existing alignment. The Nadapal – Eldoret section mainly involves rehabilitation and upgrading of the existing road except the spot improvement of the alignment on the hilly parts of the road. Alternative option of constructing dual carriage way or widening of the existing road in heavily traffic urban section was assessed and appropriate option was adopted depending on availability of open space for the widening

33. During implementation of the project, the Bank’s safeguards team will work closely with government to ensure the technical assistance and capacity building required at central, state and local government levels for effective implementation of the ESIA, RAP and ESMPs. It is also critical that the Implementation Unit in South Sudan commits to the regular monitoring program and partners with the local authorities to ensure the mitigation measures defined in ESMP are implemented on a regular basis. The independent consultant to be engaged by MTRB will support the safeguards supervision and follow up of implementation of mitigation measures

34. The table below identifies the different safeguard policies that are going to be triggered by this program:

Safeguard Policies Triggered by the Project	Yes	No
Environmental Assessment (OP/BP 4.01)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Natural Habitats (OP/BP 4.04)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Pest Management (OP 4.09)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Physical Cultural Resources (OP/BP 4.11)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Involuntary Resettlement (OP/BP 4.12)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Indigenous Peoples (OP/BP 4.10)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Forests (OP/BP 4.36)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Safety of Dams (OP/BP 4.37)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Projects in Disputed Areas (OP/BP 7.60)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Projects on International Waterways (OP/BP 7.50)	<input type="checkbox"/>	<input checked="" type="checkbox"/>

35. **Responsibilities for safeguard screening and mitigation.** MTRB, and participating states and counties are responsible for safeguards implementation. MTRB and State MTR are responsible for the coordination of overall project implementation at all levels including issues

*By supporting the proposed project, the Bank does not intend to prejudice the final determination of the parties' claims on the disputed areas

related to environmental and social safeguards management and environmental sustainability. The implementing institutions have limited capacity to support or supervise environmental and social safeguard management activities. The program will hire the TA under MTRB/ESMU and the environmental and Social TA specialists together with the Environmental Officer of MTRB will have the following safeguards implementation responsibilities (a) oversee safeguards implementation in EARTTDFP; (b) liaise with national and state environmental ministries on a regular basis; (c) ensure compliance with the ESMP, RAP and other safeguard instruments; (d) build capacity and troubleshoot for the state and county level engineers and relevant ministry staffs; (e) implement recommendations under ESMP and other safeguards instruments as required; (f) and raise awareness and build capacity of the community and relevant stakeholders at the various levels. The project will clarify and reinforce responsibilities for implementing and monitoring the environmental and social safeguard aspects of the project, and provide technical support to the implementing institutions for the sound implementation of the ESMP, RAP and other environmental and social safeguard instruments. The Environmental and Social Management Unit (ESMU) will also communicate at a regular basis with Bank project team regarding environmental and social safeguard issues, and would play a lead role in increasing the level of awareness on environmental management at all project level.

36. ***Capacity Building and Monitoring of Safeguard Framework Implementation.*** As part of the capacity building arrangements made for implementation of the proposed program, the project will have a TA on environmental and social safeguards management at MTRB/ESMU to assist the MTRB staffs on safeguards management activities, provide training and capacity building and deliver subsequent guidance and review of the RAP's and ESMP's application, as well as the social mitigation measures required under OP 4.10. The project will also ensure responsibilities of implementing and monitoring the environmental and social safeguard aspects of the project, provide training and technical support to the MTRB, state MTR, counties offices and other line ministries staffs and create awareness among communities and relevant stakeholders on sound environmental management practices and implementation of the ESMP, RAP and other safeguards instruments. The Bank environmental and social safeguard specialists in the project task team will work closely with the ESMU/MTRB, provide guidance and support to the implementing institutions at various level. During supervision of this program, the Bank will assess the implementation of the ESMP, RAP and other safeguards instrument, and recommend additional strengthening, if required.

37. ***Consultation and Disclosure.*** MTRB will consult participating communities and local NGOs on the project's environmental and social aspects on an ongoing basis, and will take their views into account. Implementing agencies will initiate these consultations as early as possible, and for meaningful consultations, will provide relevant material in a timely manner prior to consultation.

KENYA

38. As there will be no road upgrading component for Kenya under the first project, the activities (safeguards instruments, capacity-building) for Kenya in this project are being undertaken through Project Preparation Advance (PPA). The ESIA and RAPs for the Kenya portion of the road will be prepared, consulted upon, and disclosed before appraisal of the second project. An Environmental and Social Management Framework and Resettlement Policy Framework has been prepared, consulted upon, and disclosed in-country and at the InfoShop on November 26, 2013.

39. The project also triggers OP 4.10 in Kenya. As the vast majority of people in the project meet the criteria for OP 4.10, Indigenous Peoples Plans do not need to be prepared, but Social Assessments need to be prepared, consulted upon and disclosed. The findings of the Social Assessment, including – the process used in fostering free, prior, and informed consultations leading to broad community support of the project; a grievance redress mechanism; addressing adverse impacts and/or providing benefit-sharing; and, establishing monitoring, evaluation, and reporting during implementation relating to the communities – have been included in the project as social risk mitigation measures and benefits. The ToRs for the Kenya Social Assessment have been disclosed in-country and at the InfoShop on November 26, 2013.

40. On the Kenyan territory around West Pokot, between Lokichar and Kapenguria there is a South Turkana National Reserve area crossed by the proposed road and animal passing corridors were observed, which may require provision of animal under pass and fencing along section of the road frequently crossed by animals to direct them to the under pass. A realignment section of about 12 km that would have impact on Kamatira forest area was proposed, but KeNHA has reconsidered to follow the existing alignment and improve the gradient and curves. Kitale town crossing is proposed to be improved in such a way that will not affect settlement by following the existing route. The Segment between Marich Pass and Kitale will be upgraded in the second phase by JICA and safeguard issues along this segment will be reconsidered by JICA and KeNHA. The road upgrading will follow the existing alignment and with the adoption of the environment friendly approaches and implementation of the mitigation measures no adverse negative impact is expected.

41. KeNHA will be responsible for the environmental social safeguard aspects on the Kenyan side. KeNHA has been implementing Bank projects and has acquired adequate experience and capacity to handle program safeguard issues.

Annex 8: Background on the Juba-Eldoret Corridor
AFRICA: Project Name: South Sudan- Eastern Africa Regional Transport, Trade
and Development Facilitation Project (First Phase of Program) (P131426)
(SS-EARTTDFP)

A. Regional and Country Context

1. The Eastern Africa sub-region comprising Kenya, Uganda, Tanzania, Burundi, Rwanda, Ethiopia, eastern Democratic Republic of Congo, and South Sudan recorded an average annual economic growth rate of about 5 percent over the last decade. The sub-region is potentially a large regional market of over 200 million people. However, it remains one of the poorest and furthermore, the Eastern Africa sub-region includes the most populous land locked country (Ethiopia) in the world, the newly born natural resource endowed land locked country South Sudan, and eastern part of one of the largest countries in Africa (Democratic Republic of Congo). This sub-region is much influenced by developments in Sudan and Djibouti. Relatively poor transport links among these countries, the less than satisfactory performance of the ports of Mombasa and Dar-es-Salaam and other related constraints to the movement of goods and people, impede access to intra and inter regional markets and contribute to the under development in the sub-region.

2. Recent studies on trade flows within Eastern Africa show that Uganda is the largest market for Kenyan exports, accounting for over 60 percent of total exports within East African Community (EAC), while Tanzania is the largest exporter to Kenya accounting for 65 percent of its total exports within EAC. Kenya is the largest market for Uganda exports within EAC followed by Rwanda. While on the basis of export destinations by country, Uganda accounts for about 34 percent of Kenyan exports, United Kingdom 29 percent, Tanzania 22 percent, and South Sudan 12 percent among others. The discovery of commercial quantities of oil in Uganda and northern Kenya could change these proportions given that petroleum products comprise a significant portion of the Kenyan exports to Uganda. Regional trade has been enhanced with the establishment of the EAC. An efficient transport network within EAC block and links with its neighbors is crucial for the promotion of regional integration. Uganda is a major trade partner to South Sudan. However, trade between Ethiopia and South Sudan as well as Uganda is restricted due to lack of transport access. This program targets enhancing trade among South Sudan, Uganda, Ethiopia and Kenya, as well as the surrounding regions and the international market. Nadapal area is the confluence of the three landlocked countries and coastal Kenya, which forms an economic quadrangle that stimulates growth and trade.

3. The various regional economic cooperation blocks, i.e. COMESA, SADC and EAC, have put in place the essential conditions for increased intra-regional trade and co-operation. For example, the EAC's transport agenda puts a lot of emphasis on creating trade corridors without borders and barriers and on facilitating trade and promoting economic integration throughout the sub-region. The sub-region is part of a major regional market, including the three economic blocks (EAC-COMESA-SADC), with a combined GDP of approximately US\$1,096²⁶ billion, and population of roughly 590 million, in 2011. Of the three regional blocks, SADC is the

²⁶ World Bank Data Bank, Countries and Economies, 2011

economic “giant”, with a total GDP of US\$644 billion, in 2011, followed by COMESA with a combined GDP of US\$518²⁷ billion, in 2011. The GDP for EAC countries, in 2011 was estimated to be about US\$95. The eastern neighboring countries of South Sudan, namely: Kenya, Uganda and Ethiopia, in 2012 had a population of 43.2 million, 36.3 million and 91.7 million, respectively and their GDP was estimated to be about US\$37.2 billion, US\$19.9 billion and US\$43.1 billion respectively. The estimate of the population living under the poverty line in Kenya, Uganda and Ethiopia is 45.9 percent (in 2009), 24.5 percent (in 2009) and 38.9 percent (in 2005). Sudan with a population of about 31 million has a GDP of US\$54²⁸ billion, in 2011. All of these countries are categorized as low income countries.

4. South Sudan with a land area of about 648,000 sq. km and population of 10.8 million²⁹ is endowed with abundant natural resources including a large amount of good quality rain-fed agricultural land, potentially irrigable land, aquatic and forest resources, and contains significant oil reserves. Yet more than 50 percent of the population is poor and indicators of human well-being are among the lowest in the world. The significant challenge for the emerging state is to translate its peace dividend and abundant natural resources into better human and economic development outcomes for its people and future generations. South Sudan is a landlocked country and has limited access and trade partnership with its neighbors, the economic communities in the east and southern Africa regions, as well as the international market. South Sudan is member of the IGAD, which includes eight countries, namely: Eritrea, Djibouti, Somalia, Ethiopia, Sudan, South Sudan, Kenya and Uganda. IGAD membership includes many countries that have high political instability and economic vulnerability, which calls for increased integration and economic partnership among themselves. South Sudan is aspiring to be a member of EAC, COMESA

5. South Sudan started out at a distinct disadvantage, as the economy is totally dependent on oil export while consumables, including food are imported. The agricultural potential and other natural resources are not yet exploited. The challenge of high rate of unemployment and Disarming, Demobilization and Reintegration (DDR) of ex-combatants is critical. Sporadic conflicts and insecurity are at times a hindrance to movement of people and development. Trading of agricultural products of South Sudan at the regional markets is very limited, and even the exchange of local products among the states is not yet fully practiced. Cognizant of these, the Government of the Republic of South Sudan (GRSS) is looking keenly to open up the country to foreign direct investment, enhancing regional and domestic trade, and promoting economic development. In line with this, the South Sudan Development Plan (SSDP) capitalizes on primarily linking the country to the regional and world markets.

6. Geographically, Eastern Equatoria state and Southern Jongolie, are ideally located to promote trade among South Sudan, Kenya, Uganda and Ethiopia. The immense agriculture and mineral resources potential makes this part of South Sudan the prime area for attracting foreign investment and promoting production of exportable products. Thus, the Juba-Nadapal-Eldoret

²⁷ The estimate includes the GDP of the seven countries common to SADAC and COMESA, in the amount of about US\$66.7 billion

²⁸ International Monetary Fund (IMF) projection for 2012 after the separation with South Sudan

²⁹ Fifth South Sudan Population and Housing Census, 2008

road and the branching out roads to Ethiopia and Uganda play catalytic role in developing the economies of the countries in the sub-region and enhancing trade among themselves, hence, benefiting all the eastern neighboring countries.

B. Sectoral and Institutional Context

Transport Infrastructure

7. The transport environment exhibits relatively poor condition of the transport infrastructure, high cost of fuel, high logistical costs and other barriers such as market entry restrictions, customs regulations and informal cartels along the regional transport corridors of South Sudan and limited competition in the trucking industry. Promotion of increased trade and sustained economic growth require modern regional infrastructure including effective and efficient transport services, and improvement of regional environment for investment, business, trade and movement of people. A study by the World Bank, “Africa Infrastructure Country Diagnostic” notes that infrastructure deficit is holding back per capita economic growth in Africa by 2 percentage points per year and reducing productivity of firms by as much as 40 percent.

Regional Corridors

8. The AU/ NEPAD integration initiative has emphasized connecting neighboring countries and sub-regions through the construction of missing transport and ICT links. The initiative facilitates the completion of the missing or unreliable parts of the road network in the sub-region that connects to the trans-African highways, countries and major economic and settlement centers, and supporting transport and trade facilitation action plans promoted by the transit transport coordination groups and regional economic communities. In addition, the initiative promotes economic development along the regional corridors to take advantage of the transport infrastructure and trade facilitation measures. The major trans-African corridors include the great eastern Africa highway stretching from Cairo to Cape Town connecting many of the eastern and southern African countries; Djibouti – Dakar, and Mombasa-Goma (Eastern Democratic Republic of Congo-DRC) – Dakar highways connecting eastern, central and western African countries. The great eastern Africa highway is nearly complete, except the missing link between Moyale (border of Ethiopia and Kenya) and Isolo, northern Kenya, which is under construction. The east-west corridors are developed on both ends, but the challenge is to complete the missing links crossing central African countries, in particular the link from Goma (DRC) to Burkina Faso crossing Central African Republic and Niger; and the link from Ndjamen (Chad) to Bamako (Mali) crossing Niger. There is also a proposal to link Djibouti /Port Sudan – to Dakar by rail, but closing the gap in the existing rail network, in particular, crossing the Sahel countries is a major challenge. NEPAD/AU and regional economic communities are also promoting sub-regional corridors, inter alia Kampala-Juba-Addis; Juba-Eldoret-Musoma (Tanzania)-Lusaka; and the Great Lake (Lake Victoria) circuit, which are essential for enhancing trade and economic growth in the sub-region this program is targeting.

9. Eastern Africa is served by two main transit transport corridors, namely (a) the Northern Corridor that connects the port of Mombasa to Nairobi, Kampala, Kigali, Bujumbura and Eastern DRC with branches to Lake Victoria, Sudan, Ethiopia and Tanzania; and (b) the Central Corridor

that connects the port of Dar-es-Salaam to Kampala with branches to Kigali, Bujumbura, Lusaka and DRC. The two corridors serve the landlocked countries of Rwanda, Uganda, and Burundi, and are strategically located to serve other countries including Ethiopia, South Sudan, DRC, Malawi and Zambia once the existing bottlenecks that limit or prevent any transit trade traffic between East, West and Southern Africa (the north-south link between the Central and Northern Corridors) are removed. The major challenge in enhancing interconnectivity and trade in the countries in the target sub-region is related to trade facilitation and the state of the road network, which is either in poor condition or missing, in particular the routes connecting Juba to Eldoret along the northern corridor via Nadapal (border between South Sudan and Kenya) and the Kampala-Juba-Addis corridor which shares the major part of the Juba-Nadapal road, as well as the Boma (border between Ethiopia and South Sudan)-Lobira-Kitgum (Uganda) links.

10. The regional link roads closer to the borders of South Sudan are missing or traffic has to rely on unreliable earth road. The traditional trade routes³⁰ between Sudan and South Sudan are currently not accessible due to insecurity and conflict. Moreover, the distance is prohibitive to the use of north-south routes as import – export corridor, and South Sudan relies on Mombasa Port and striving to open access to Djibouti Port. The new port development initiative at Lamu, in Kenya is emerging as a competitive port in the region and future road links will be influenced in creating shorter access to this port.

11. The corridors linking Juba to the eastern sea ports and major commercial centers in the region are significantly long. The distance between Juba and Mombasa is between 1,700 km to 1,800 km, depending on the corridor. Djibouti is also located about the same distance away from Juba, while the distance between Juba and Port Sudan is about 2,800 km. The distance between Juba and the major cities and economic centers in the neighboring countries, Kampala, Nairobi, Addis Ababa and Khartoum is about 600 km, 1,200 km, 1,100 km and 2,000 km, respectively. The specific characteristics of the corridors are as follows:

12. *The Nimule Corridor One.* The current major access road linking Juba to Mombasa Port, which passes through Kampala (Nimule corridor one), has a total length of 1,820 km. The road segments along this route are in good and fair condition, except the 100 km between Nimule (border between South Sudan and Uganda) and Gulu, in Uganda, which is under construction. The rail line between Mombasa and Kampala is an alternative mode of transport that could be used with a transfer of goods and passengers onto road transport to Juba. The rail line between Eldoret and Gulu, close to the border of South Sudan is abandoned due to lack of maintenance and repair, but could be revitalized. The route through Uganda has to cross a second border post at Malaba (border between Uganda and Kenya), and this makes the corridor sensitive to turnaround time considerations.

13. *The Nimule Corridor Two.* There is also a bypass road, which connects Gulu to Malaba/Mbale (border between Uganda and Kenya) via Soroti, and this route will reduce the distance between Juba to Mombasa to a total of 1,630 km. However, part of this route has to be

³⁰ The north south links between Sudan and South Sudan (the rail line to Wau (north west of South Sudan), river transport between Kosti and Juba, crossing Malakal, and the dry weather road corridor crossing the conflict affected area of Abiyie)

constructed or upgraded. This corridor also faces the challenge of crossing two transit regimes, including two border posts.

14. *The Nadapal Corridor.* The distance between Juba and Mombasa via Nadapal (border between Kenya and South Sudan) and Eldoret is 1,745 km. The section between Juba to Eldoret (940 km) requires upgrading (340 km within South Sudan and about 600 km within Kenya). This same road also connects Juba to Nairobi. However, the development of the Lamu Port will shorten the distance to Juba from the Port to about 1,600 km. The Nadapal Corridor could make use of the rail line from Mombasa to Eldoret, which is currently operational. The distinct advantage of this corridor is that it has to cross one border post and a transit regime in Kenya only, which makes it the preferred route in terms of turnaround time to Mombasa.

15. *The Boma Corridor.* Djibouti, via Ethiopia is an alternative sea port to South Sudan, which is about 1,900 km away from Juba. This road spurs to the north at Kapoeta 250 km from Juba or Narus, 300 km from Juba on the way to Nadapal, then connects to Boma, in South Sudan, and Dima (65 km from the border of South Sudan) and Mizan Teferi in Ethiopia. The section Narus-Boma-Akobo river (the border between South Sudan and Ethiopia), is about 150 km, and it is a dry weather road. The road between Akobo river and Mizan Teferi is about 150 km and it is all weather gravel road of which 90 km will be paved shortly under World Bank financing, and the remainder is under tender for upgrading to paved road under the financing of the Ethiopian Government. The remainder part Mizan Teferi-Addis Ababa-Djibouti is about 1,200 km, which is in good condition. The Djibouti Port has also excess capacity, as the port has been developed for trans-shipment, which offers the possibility to use more shipping services at a competitive fare.

16. *The Omorate Corridor.* Narus-Omorate, Arbaminch, Mojo, Diredawa, Djibout could be a shorter alternative route to Djibouti with a total length of about 1,750 km. The Boma/Djibouti corridor could make use of the rail line between Djibouti and Addis Ababa/Mojo. There is also a plan on the Ethiopian side to construct a new rail line to Omorate area, close to the border of South Sudan, which, if realized could be most attractive option for connecting South Sudan to Djibouti Port. However, this route requires constructing a road linking Narus to Omorate, about 70 km.

17. *The Lobira-Uganda link (Lobira Corridor).* Lobira is about 160 km away from Juba on the way to Nadapal and this is the start point for a potential road link to Uganda, from the Juba – Nadapal-Eldoret corridor. This road connects Lobira-Ikotos (South Sudan) and Kitgum and Gulu (Uganda), with a distance of roughly about 250 km. The road from Lobira passes through Kitgum, in Uganda, about 30 km from the border where an alternative route to Soroti spurs out. Following the Lobira-Kitgum-Lira-Soroti Mbale/Malaba route the total distance from Juba to Mombasa is approximately about 1,600 km, making it the shortest link of all corridors to the sea port. This corridor could also link Torit to Kitgum via Magwi-Labone close to Uganda border, which further reduces the distance to Mombasa through Kitgum/Soroti.

18. *The Kaya Corridor.* Juba-Yei-Kaya (border between South Sudan and Uganda) – Kampala/Soroti is an alternative road link to Uganda and Mombasa Port, with a length of

approximately 1,950 km. This corridor, more importantly serves traffic to and from western South Sudan and north eastern DRC.

19. *The Port Sudan Corridor.* This corridor is served by routes until Khartoum. The Port Sudan-West corridor is served by a dry weather road traversing western part of South Sudan, Abiyie area (currently inaccessible due to insecurity) and link to Khartoum and onward to Port Sudan, The approximate length of the road between Juba and Khartoum is 2,000 km while Khartoum to Port Sudan is 800 km, making the total length 2,800 km. The rail line connection between Wau and Port Sudan was the most reliable and relatively efficient all season connection, as the road extending from Wau to Juba (about 660 km) is an all-weather road. The length of the rail line between Wau and Khartoum and Port Sudan is 1,450 km and 2,250 km respectively, making the total distance from Juba to Khartoum and Port Sudan 2,100 km and 2,900 km respectively.

20. *Port Sudan – Nile Corridor.* The Juba- Kosti, river Nile reach, about 1,400 km in length, was one of the all season accesses to Khartoum and Port Sudan. The total distance from Juba to Khartoum and Port Sudan via, Kosti (by river as there is no road connection all the way through) is about 1,700 km and 2,500 km, respectively. The road between Juba and Bore (190 km) is an all-weather gravel road, but the onward section Bore-Malakal-Renk (about 800 km) is inaccessible during the rainy season.

21. *The Gambella Corridor.* The northern part of South Sudan is closer to the Djibouti port and better served by road that crosses Gambella, in Ethiopia. The Government of South Sudan is taking action to construct road link to Ethiopia, connecting to Gambella. The gravel road construction between Malakal (major economic center and the capital of Upper Nile State) to Pagage/ Jikao (border between Ethiopia and South Sudan) is in progress while the section linking Jikao to Gambella, in Ethiopia is already a paved road. Gambella is about 650 km away from Addis Ababa and about 1,300 km for Djibouti. A road connecting the oil fields to the Gambella corridor is under tender, by the South Sudan Government. Bore - Pochala road connecting the central part of South Sudan to Ethiopia and ultimately to Djibouti Port is one of the priority roads of the Government of South Sudan. This corridor, if completed would be the shortest link to a sea port (Djibouti) for the land mass of South Sudan, making the distance from Bore to Djibouti about 1,600 km. However, the route crosses a large marshland in South Sudan and could be expensive to construct.

22. *Other corridors.* There is short distance dry weather road connections between western part of South Sudan and north eastern DRC, as well as western South Sudan and Central Africa Republic (CAR) and Darfur area, but is frequently disrupted due to insecurity.

Modal Split

23. These transport corridors are multi modal, comprising of road, railway, inland waterways, and oil pipeline in Kenya. The bottlenecks include missing links both over land and inland waterways.

24. *Road Infrastructure.* The transport system in the region is dominated by road transport, except the few rail links connecting Mombasa to Kampala and Djibouti to Addis. The eastern neighboring countries of South Sudan have in place arterial roads connecting different parts of their hinterlands. The classified road network size in the Kenya, Ethiopia, Uganda, Sudan and South Sudan is about 160,886 km, 57,699 km, 48,662 km, 31,000 km and 17,000 km, respectively. The road network size in the sub-region by category is presented below in Table 8.1.

Table 8.1: Road Network Size in the Sub-region

Road Category	Kenya	Ethiopia	Uganda	Sudan	South Sudan
Primary/National Roads	13,687	22,431	20,562	6,700	4,000
Secondary and Tertiary	134,650	30,712 ³¹	22,500 ³²	24,300	13,000
Urban Roads	12,549	4,556	5,600	No Data	No Data
Total	160,886	57,699	48,662	31,000	17,000

25. *The transport system in South Sudan* is characterized by low level of accessibility, dilapidated transport infrastructure and high transport costs, which has made the cost of development and doing business excessively high. Out of the 17,000 km of the classified road about 4,000 km are all weather lateritic gravel roads while the remainder comprises dirt tracks and trails. Air, river and rail transport systems are all under developed. The road infrastructure was left in state of complete disrepair during the protracted civil war. The road transport costs in South Sudan continue to remain significantly high. Freight tariffs could reach US\$0.20 per ton kilometer which is about three times that of Eastern Africa, which is a direct consequence of high vehicle operating costs.

26. *Railways.* The Kenya-Uganda railway line account for less than 6 percent of the cargo shipped overland in East Africa. The performance of the railways has been particularly poor in recent times despite being concessioned to the private sector. The concession has been facing severe challenges which threatened its existence due to underperformance and failure to meet agreed performance targets. The Kenya-Uganda Railway concession has been restructured bringing in new investors and injecting fresh capital into the venture, and its performance is expected to improve in the short term. The rail line connecting Mombasa – Nairobi and Kampala branches out at Tororo/Malaba (border between Kenya and Uganda) and links Soroti-Lira-Gulu (in Uganda about 100 km from the border of South Sudan). However, this route has been neglected for years and requires major rehabilitation to provide service. Nonetheless, one of the future rail line links between South Sudan and the East African railways network is the extension of the Port Sudan – Wau (North West of South Sudan) railways, which passes through Juba and Gulu and merges with the currently operational rail line at Tororo. There is also a proposal to rehabilitate the Tororo-Gulu rail line and develop a dry port at Gulu to serve South Sudan. Ethiopia has a rail line link between Djibouti and Addis, which is currently under upgrading. There is also a plan to extend this line to Omorate, in Ethiopia, about 50 km away from the border of South Sudan, which could be linked to the Nadapal corridor at Narus. The future rail

³¹ Additional 100,384 km of unclassified roads are developed and maintained by local communities (districts)

³² Exclusive of community access roads estimate at about 30, 000 km

link between Djibouti and Omorate will follow the road corridor, which constitutes the Djibouti Mojo section (about 700 km) and Mojo-Arbaminch-Omorate section (about 680 km).

27. *Inland waterways.* River Nile is navigable all season, although, currently the section Juba to Kosti (in Sudan) is in use by old fleets inherited by a private company from the former Sudan Inland River Navigation Corporation. The river ports that serve Juba, Bore, and Malakal are not well developed and there is no adequate navigation aid. The Juba-Kosti reach also require spot dredging to allow safe passage of barges. Sobat River linking Gambella (in Ethiopia) and Malakal (in South Sudan) is navigable for most of the year, but not often used by commercial fleets. In the region, Lake Victoria is widely used to transport goods and people in the great region area. Transshipment from the pipeline and rail line connecting Mombasa to Kisumu (in Kenya) to the great lake countries is an attractive option of transport of goods. The Lake Victoria circuit is also linked to Dar-es-Salaam Port by road and rail line and this is one option for linking South Sudan to Tanzania and Dar Port, via the Eldoret/Kisumu and Musoma corridor.

28. *Oil pipeline.* An oil pipeline connects Mombasa to Eldoret and Kisumu (Lake Port) in Western Kenya which serves the East African countries. The pipeline provides transport services at competitive prices and decongests the busiest part of the Northern Corridor over and above keeping off the heavy tankers carrying inflammable petroleum products on the roads. Due to increased demand for petroleum products in the region, the pipeline is facing capacity constraints. The discovery of oil in Uganda makes this mode of transport even more important in the region.

29. The key features of the main corridors are summarized in table 8.2.

Table 8.2 Key Features of the Main Corridors

Designation of Corridor	Distance from Juba to sea port (Km)	Specific features
Nimule one/Kampala	1,820	Two transit regime; road, rail, pipeline link
Nimule two/Soroti	1,630	Two transit regime; road, rail, pipeline link
Nadapal ³³	1,745	One transit regime; road, rail, pipeline link
Boma	1,900	Two transit regime; road, rail link
Omorate	1,750	Two transit regime; road, rail link
Lobira	1,600	Two transit regime; road, rail, pipeline link
Kaya	1,950	Two transit regime; road, rail, pipeline link
Port Sudan-West/Wau	2,900	One transit regime; rail , road link
Port Sudan-Nile/Malakal	2,500	One transit regime; river, road, rail link
Gambella-Bore-Juba	1,800	Two transit regime, river, road ,rail link

Trade and logistics

30. The trade flow in eastern Africa is dominated by imports, which represents about 80³⁴ percent of the total trade volume, while export trade constitutes only about 20 percent. An

³³ The Lamu port, which spurs at about 400 km away from Nadapal and make the distance between Juba and the Port about 1600 km.

assessment³⁵ carried out for identifying the development potentials along the regional corridors in eastern and southern Africa show that the exportable items from the region are limited and focused on mining products, including export of oil from South Sudan.

Table 8.3: Exports from Africa

Source/Location	Commodity	Mode	Existing Volumes	New/ Annual Production (tons)	Additional Production
Northern Uganda	Oil - Crude	Road and rail	none	100 000 bbl day = 4.7 million tpa	
Malawi/ Zambia	Tobacco	Road /road	180,000	50,000	
Mozambique	Agriculture/Forestry	Road/	Nominal export	assume 500 000 tpa	
Mozambique	Sugar	Rail, barge	100 000tpa est	150 000tpa est	
Zambia	Copper	Road / rail	800 000tpa	400 000tpa	
DRC Copper belt	Copper	Rail / road	50 000 tpa	200 000tpa	
Eastern DRC	Iron Ore	Rail	non	up to 50 million tpa	
Zambia /Lusaka region	Agriculture	Road/ air	50 000 tpa	100 000 tpa	
Southern Sudan	Oil	Pipeline	Assume 5 mtpa	Assume 10 million tpa	
Mozambique	Sugar	Rail/ barge	150 000tpa est	150 000tpa est	
Zimbabwe	Copper	Rail	none	2.5 mill tpa	
Burundi/Tanzania	Nickel	Rail /road	none	Assume 0.7 mtpa	

31. South Sudan imports basic consumables from Kenya, which is the region's largest consumable product producer. Agricultural and consumable goods are also imported from Uganda. Trading between South Sudan and Ethiopia is limited to the northern part of South Sudan as there is no reliable road link to the more populous southern and central parts of South Sudan. Trade between Sudan and South Sudan is at its historical low level due to the conflict, but as the situation normalizes cross-border trade is expected to rise.

32. The corridors are not well developed and there is no data that could help to make quantitative analysis of the size and pattern of trade flow and traffic volume and trade along the corridors. Moreover, due to lack of reliable all season access the flow of traffic along the corridors varies from year to year. The corridors like Kapoeta-Boma (Ethiopia direction) and Lobira-Ikotos (Uganda direction) are used seldom as the access is limited to dry weather track. Likewise, the flow of traffic from Kenya along the Nadapal corridor is restricted due to the poor condition of the road. However, a study conducted on South Sudan logistics and trade bottlenecks supported by the World Bank (only a draft report was issued in February 2012) came up with some data on the nature of trade with the neighboring countries, mainly Uganda, and indicated traffic movement challenges along the Juba-Nimule-Mombasa corridor.

³⁴ Trade Mark East Africa, presentation to the Juba-Eldoret road financing donors' consultative meeting, Nairobi, January 2013.

³⁵ Nathan Associates, Definition and Investment Strategy for a Core Strategic Transport Network for Eastern and Southern Africa, Volume 3 Regional Transport Model Report, October 2011.

33. The National Bureau of Statistics (NBS) released preliminary estimates of South Sudan's GDP to be US\$13.2 billion for 2010. Export was US\$9.5 billion or 72 percent of the GDP while import was US\$5.3 billion or 40 percent of GDP. Non-oil domestic production was US\$3.7 billion or 28 percent of GDP of which agriculture accounts about US\$1.6 billion or (12.7 percent). The balance, US\$2 billion or (15.3 percent) represented GDP share of the remaining sectors. Oil was and will be for some time the main export, and was transported using pipeline via Port Sudan. However, imports are brought from the neighboring countries, and overseas via Port Sudan, Mombasa and from the neighboring countries mainly by road. Trade between South Sudan and Uganda, in agricultural produces and building materials, etc. reached as high as US\$1 billion, in 2008. This translates into a total import of 5,341,000 tons³⁶. In 2008, the Kenya Port Authority (KPA) revealed that South Sudan was the third largest user of the Mombasa Port with 6.4 million tons of items imported through Mombasa. KPA further stated that the overall shipment this same year amounted to 19.1 million tons. Apparently, the total does not include border trades with Kenya, Uganda, DRC, CAR, Sudan and Ethiopia. According to IMF's estimate, South Sudan's import in 2010 was about US\$5.5 billion, while this has reduced to US\$3.5 to US\$5 billion in 2011, largely as a result of the sharp decline in trade with Sudan after independence.

A summary of the Import –Export flows of the countries in the Eastern Africa is presented in Table 8.4.

Table 8.4: Import – Export Volumes in the Sub-region Countries - Eastern Africa

	2002 ('000s tons)	2006	2009	Annual growth
Imports				
Container + general cargo, dry + bulk cargo	7,844	11,846	16,507	11.2%
Transit cargo	1,875	4,347	3,612	13.7%
Exports				
Container + general cargo, dry + bulk cargo	2,380	2,255	2,450	0.4%
Transit cargo¹	340	335	368	1.1%
Total –imports+exports	10,240	14,101	18,957	9.2%
Container traffic (TEU)	305,427	479,355	618,816	10.6%
South Sudan				
Imports	92.8	130.0	155.7	9.7%
Exports	0.16	7.8	11.66	1007.8%

34. Customs clearance at border posts and road blocks along the transit corridors are also challenges to be addressed as part of any regional transport and trade facilitation initiative and moreover these will be major factors for road users while selecting efficient corridors.

35. In the sub region, trade bottlenecks which add costs, delays and lack of reliability to the supply chain principally involve infrastructure fragmentations or complex transit regime, arising among others from lack of trust or harmonization of trade related documentary processes, which

³⁶Asebe, 2012, South Sudan logistics and trade bottlenecks supported by the World Bank

hinder door to door delivery as in developed countries. South Sudan faces more trade bottlenecks due to disconnected infrastructure, even by the standard of the other developing countries in the sub-region. The trade bottlenecks arise because the supply chain of traded goods, both behind the border and along the transit corridors, rely on an extended sequencing of discrete operations, with many procedures, agencies and services, all prone to rent-seeking and over regulation³⁷.

36. Kaya, Nimule, Nadapal, Bazi on the DRC border are among the main South Sudan customs stations. Juba, the primary logistics center of South Sudan also serves as a customs clearing station for goods coming in by river transport and bonded goods transiting to Juba customs from Mombasa, Kenya and Uganda trading centers. The main logistics and trade bottlenecks experienced at South Sudan custom posts in its southern borders are mainly infrastructure and non-tariff barriers such as informal payments, banking finance, exchange rate fluctuation, foreign exchange control, and security³⁸.

37. The Transit Regime: South Sudan has announced that it will join EAC and it has to conclude transit regime agreements with its transit countries. This may be accepting the current transit regime or negotiating on specific issues. The rest of the countries in the region may want to put conditions for example, on treatment of traders and drivers entering South Sudan. Other issues would be state taxes levied upon crossing state borders. The transit regimes governing the flow of goods along these corridors are at different stages of development. Mombasa is part of the Northern corridor, which follows a transit regime with a legislation model. When South Sudan joins the EAC, it may need to agree to the transit regime governing the transit system for the movement of cargo and personnel on the Northern Corridor. The Mombasa based Northern Corridor has been moving into electronic transit system documentation, however, lack of reliable power supply at custom posts is holding it from moving into full operation.

38. The assessment undertaken as part of the South Sudan Logistics and Trade Bottleneck³⁹, in 2012, has evaluated the performance of the Mombasa – Juba corridors via the three entry points of Nadapal, Nimule and Kaya, in terms of travel time. The average travel time between Mombasa to Juba through Nadapal, Nimule, and Kaya, was 5 to 8, days, 6 to 9 days, and 7 to 11 days, respectively, Nadapal being the shortest in terms of travel time. The assessment also included itinerary of a driver between Mombasa and Juba via Kaya. A trip along this corridor takes from 10 to 11 days loaded, representing about two days to reach Nairobi from Mombasa; two days to Malaba; one to two days at Malaba to clear custom points⁴⁰; two days to reach Koboko (near Oraba/Kaya); one to two days to clear at Kaya, including the journey from Koboko to Kaya; one to two days to travel from Kaya to Juba. The main challenges the driver faced were security; bad road; overcharging on road; lack of access to good food service along the road; expensive service; and arbitrary demand for payment by security officers.

³⁷ Arvis, 2011.

³⁸ Asebe, 2012, South Sudan logistics and trade bottlenecks supported by the World Bank

³⁹ Asebe 2012

⁴⁰ It is interesting to note that truck owners estimate about two days for custom processing at Malaba.

39. Customs Release Time is a critical factor determining the choice of corridors. Nimule (inbound custom post in Sudan) and Bibia (outbound custom post in Uganda) are about 10 kilometer apart. Customs processes are conducted separately by the respective customs offices. Based on the World Custom Organization (WCO) data base, the average time taken to process a declaration from the entry of the vehicle in the inbound custom parking area to the release of the vehicle to continue the journey for Nimule is 3 hours and 49 minutes for the sample data collected. The lowest processing time was only 42 minutes and the longest processing time was 6 hours and 22 minutes. The same process has to be repeated on the other side of the border. The logistics and trade bottleneck assessment noted that truck owners' estimate about two days for custom processing at Malaba. This factor, even with the lowest custom release period, thus makes the case for upgrading the Nadapal corridor, which relies on one border crossing. South Sudan customs posts use manual documentary process; while Uganda's customs stations use electronic processing, because of weak functioning of the internet system on the Uganda's side the full benefit of the electronic process has not yet been realized. In the future, harmonization of documentary processes would be one of the issues of transit regime to be addressed.

Sectoral institutions

40. The three neighboring countries in the region (Kenya, Uganda and Ethiopia) have relatively well established Road Agencies that could look after the development and maintenance of their core road network. The central Ministry of Transport, Roads and Bridges MTRB of South Sudan has the overall responsibility of developing and managing the primary and secondary road infrastructure in the country. However, the capacity of MTRB to implement this agenda is very weak. The other key institutions in transit transport, customs and police/security, are in place in the three neighboring countries (Kenya, Uganda and Ethiopia), quite for a long period, nonetheless, effectiveness and integrity has often been a challenge. The institutions in South Sudan are operating mainly with the experience they inherited from the Southern Sudan and Sudan regimes.

Annex 9: Background on the ICT project component for South Sudan Infrastructure Project

AFRICA: Project Name: South Sudan- Eastern Africa Regional Transport, Trade and Development Facilitation Project (First Phase of Program) (P131426) (SS-EARTTDFP)

1. The Republic of South Sudan generally lacks the basic infrastructure required for a modern economy. The ICT sector is no exception. For many years, the southern part of the former Sudan was deprived of investment in fixed line infrastructure, to the extent that it is one of the few countries left in the world that still relies on a functioning telegraph system, dating from colonial times, for communication among the ten states. In February 2013, the incumbent operator of the unified Sudan, Sudani, formerly withdrew from the south, leaving the country without a licensed fixed-line telecom operator. International communications are conducted mainly by satellite, which is unreliable, slow and costly.

2. Nevertheless, despite the lack of government investment, South Sudan has a vibrant privately-owned mobile communications sector with around 2.3 million mobile subscriptions at the end of 2012, for a teledensity of around 22 subscriptions per 100 inhabitants, one of the lowest in Africa but higher than in Ethiopia or Djibouti, which both retained monopoly control.. However, the real level of ownership will be substantially lower because of high-levels of multiple SIM card use to permit interconnection between different networks. Two private mobile operators – Zain and MTN– function under licenses issued by the former unified Sudan. Two other operators – Vivacell and Gemtel– were awarded licenses by the Sudanese People Liberation Army before independence.

3. There are also four internet service providers (ISPs), of which the largest, RCS Communications, is currently investing in a 4G WiMAX network. In addition, there are an estimated 3,000 Very Small Aperture Terminals (VSAT) for satellite communications in use within the country, providing international voice and data communications. Thus, most of the largest clients (hotels, embassies, aid organizations etc.) are effectively self-providing their international communication services. This situation would change if fiber connectivity were available in Juba and other parts of the country and if bandwidth from public providers were more affordable.

Table 8.1: Mobile Network Operators in South Sudan, by Number of Active Subscription-October 2012

Operator	Active Mobile Subscribers (3Q2012)	As % of total
Vivacell	755,991	33.2
Zain	619,000	27.2
MTN South Sudan	499,409	21.9
Gemtel	295,702	13.0
Sudani *	106,000	4.7
Total	2,276,102	100.0

Note: Sudani ceased operations in South Sudan in February 2013.

Source: Ministry of Telecommunications and Postal Services, as of 2 October 2012

4. With a highly segmented market, no fixed line incumbent, and the lack of regulatory certainty resulting from the fact that none of the operators have licenses issued by the current government, the private sector generally lacks the ability to make major investments. Thus, while the private sector is able to make localized investments in Juba and the state capitals, it lacks the ability to make significant infrastructural investments necessary to create a nationwide and international infrastructure.

5. Mutual recognition of licenses was outlined by an agreement signed between the Government of National Unity and Government of Southern Sudan in 2007. However the new government has not been able to issue formalized licenses creating uncertainty among operators and constraining investment. This situation will need to be readdressed following the passage of the new Communications Act, in July 2012. But the issue of setting license fees has been a point of contention between the operators and the Ministry, especially as fees paid to the government in the North are unlikely to be recoverable.

6. South Sudan remains one of only four countries on the continent of Africa (the others being Central African Republic, Eritrea and Somalia) which is not served by fiber optic cable. International connectivity is assured either by satellite or local cross-border microwave links. Bringing international fiber connectivity into the country will transform its ICT sector and will, in turn, enhance the country's competitiveness and investment prospects, create employment opportunities, enhance government service delivery and reduce service costs. But to do that will require a public private partnership (PPP) that will create a platform for investment. The private sector has indicated that it is looking to external donors to provide guidance and momentum, as well as seed funding, for an international cable project. IFC has also indicated its interest to invest.

7. Using funds from PPIAF, the World Bank and the African Development Bank have developed a joint US\$42 million project for ICT Sector Support for South Sudan, which is proposed for inclusion in the fifth phase of the Regional Communications Infrastructure Program (RCIP-5 – P130871) alongside Uganda. For South Sudan, the project has five components:

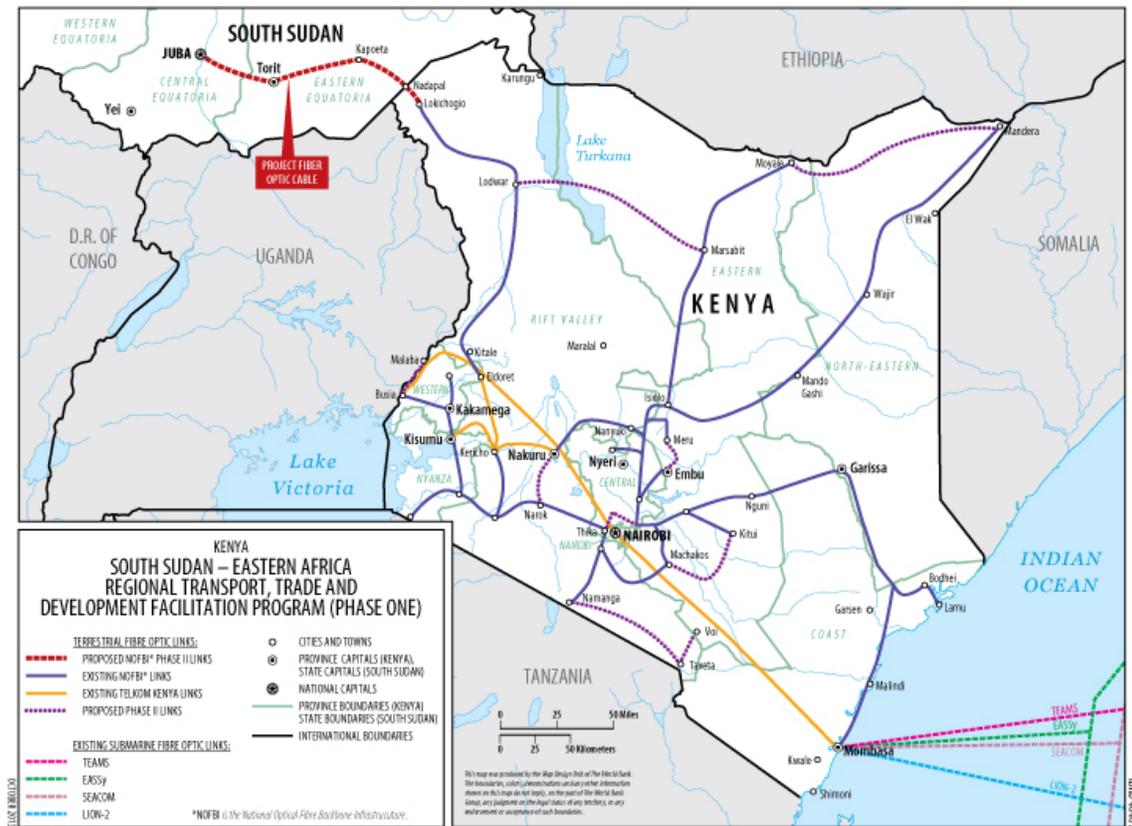
- Establishing the National Communications Authority, and undertaking a program of regulatory reform (US\$8m)
- International connectivity, with fiber cables to connect to neighboring countries, in conjunction with the private sector, and advance purchase of capacity to stimulate the market (US\$20m)
- A government backbone network and data center (US\$10m)
- Applications development and pilot applications, including eGovernment (US\$10m)
- Establishing a project implementation unit (US\$2m)

8. This project was presented at the most recent ICT sector donor coordination meeting on November 13, 2012. However, funding is not available under the current IDA round, so constructing the fiber optic cable from Juba to Lokichoggio will enable a quick start to the broader proposed program of ICT sector.

9. Government, donors, civil society and the private sector have identified ICT infrastructure as a key priority and the Juba-Eldoret (Kenya) road provides a one-time opportunity to coordinate infrastructure projects so that a fiber optic cable is laid alongside roads, minimizing the red tape associated with obtaining land easements, etc. This cross infrastructure sharing will significantly reduce investment costs. Thus an ICT component, worth a US\$15m, has been included within the larger South Sudan East Africa Regional Transport, Trade and Development Facilitation project. Of this some, around US\$13m will be for construction works of the cable and associated assets (eg cable termination points and repeaters, an Internet Exchange Point in Juba, and points of presence in Torit and Kapoeta). The remaining US\$2m will be used for regulatory, training and administrative support, notably in establishing public private partnership for managing the bandwidth on an open access basis, and supporting the development of a .ss domain registrar.

10. The proposed project development objective of the ICT component is to bring fiber into South Sudan and thereby improve the speed and reliability of international internet connectivity, to reduce prices and facilitate the development of applications. The route into Kenya is attractive since Mombasa is now served by four international submarine cables (EASSy, SEACOM, TEAMS and LION-2) with others on the way. Kenya's domestic fiber network reaches as far as Lokichoggio in the northwest of Kenya, about 25 km from the Kenyan border. From there, it is less than 395 km to Juba, passing through the Eastern Equatoria capital of Torit. This will require laying fiber optic cable alongside the planned Juba-Eldoret road, which passes through Lokichoggio. Lokichoggio itself is served by the NOFBI (National Optical Fiber Backbone Infrastructure) network and links to the Telecom Kenya network in Eldoret, and from there to Mombasa where the landing stations for the four international submarine networks are located (see Figure). Some rehabilitation of the cable between Eldoret and Lokichoggio will be required as the area just south of Lokichoggio has suffered from flood damage. Linking Juba by fiber to Lokichoggio therefore offers the possibility of connecting South Sudan to the global network of undersea fiber cables. NOFBI is currently engaged in phase 2 of network expansion, using Chinese funds, which will see additional interconnectivity, including in the north of the country, which will provide additional links into Ethiopia, Somalia and Uganda.

Figure 8.1: Indicative map showing Kenya’s national fiber network and planned expansion



Source: Kenya ICT Authority. Note, this map does not cover all fibre links (eg Liquid Telecom/KDN, Kenya Power Company, Safaricom etc are not included).

11. It is proposed that the funding set aside for the cable (US\$13m out of a total of US\$15m for the ICT component) be used to finance four ducts, two of which would have up to 72 strands of fiber, while the others would offer empty ducting to allow private investors to add additional fiber, at a later date. The fibers and ducts would be buried in the shoulder running alongside the road. The fiber capacity would be made available to the private sector operators in South Sudan (mobile operators and ISPs) either as a passive asset (ie dark fiber) or an active component (ie IP connectivity). This capacity would then be sold via agreement within the Public Private Partnership (PPP) agreements, to ISPs and other license telecom operators, and then to end customers. In this way, private sector growth will be stimulated rather than crowded out. It is anticipated that a lot of existing users of private VSAT capacity will switch to fiber once it becomes available.

12. The administration of the fiber optic cable will be entrusted to Public Private Partnership (PPP) composed of a mix of government, ISPs, mobile operators, and financial institutions (eg IFC) abiding by open access principles.

13. The ICT project team met with telecommunication operators in South Sudan on April 29, and on September 17, 2013, to outline the project. The team also held meetings with interested parties in Kenya in September and November. There is considerable interest from the private sector to invest, both in a fiber network from Juba to Kenya and also in a fiber network into Ugandan. The preference is for a Public Private Partnership (PPP) arrangement, in which the government, assisted by the World Bank, would take the lead in tendering. There is also interest in Partial Risk Guarantee (PRG) arrangements that would enable to the private sector to take a more active role in financing and constructing the cable and making use of the empty duct.

Annex 10: Other Donor Initiatives on the Juba – Eldoret Corridor
AFRICA: Project Name: South Sudan- Eastern Africa Regional Transport, Trade and Development Facilitation Project (First Phase of Program) (P131426)

1. The EAC has designated the Juba-Nadapal road as an extension of corridor No. 3 of the EAC road network – Biharamulo-Mwanza-Musoma- Sirari-Lodwar-Lokichoggio corridor – linking South Sudan, Kenya, Tanzania and Rwanda, and it further connects to the Dar-es-Salaam-Dodoma-Isaka corridor, which joins the Trans East African Highway at Dodoma. NEPAD/AU and regional economic communities are also promoting sub-regional corridors, inter alia Kampala-Juba-Addis; Juba-Eldoret-Musoma (Tanzania) – Lusaka; and the Great Lake (Lake Victoria) circuit, which are essential for enhancing trade and economic growth in the sub-region this program is targeting. The IGAD has also identified the Juba-Nadapal-Eldoret road as its priority corridor and seeking support for the upgrading from potential partners, including the EU, AfDB and the World Bank.

2. The two governments held donors’ consultative meeting on January 29 and 30, 2013, in Nairobi, Kenya to draw a road map for the support of the project. The outcomes of the meeting and new developments in raising possible financial support are presented as follows:

- (i) AfDB – on South Sudan side expressed its intent to provide US\$35 million, which will be a re-allocation from the current national envelope. After further consultation AfDB is considering to raise about US\$100 million, both from the national and regional windows in 2014. AfDB has started the preparation for the upgrading of Liria-Torit section. Details of the financing arrangement will be consulted with AfDB and World Bank Juba Offices. On the Kenya side, a modest contribution was expressed that would be further discussed between the two parties within their country partnership strategy. AfDB is providing support for the preparatory activities for the construction of the Lamu corridor, which will be the shortest link to sea for South Sudan. AfDB is supporting the development of the Kampala – Juba – Addis Ababa corridor, which shares part of the Juba-Kapoeta segment. AfDB has solicited a grant that would be used to undertake feasibility study and design for the Kapoeta-Boma section and undertaking a study to facilitate cross-border transit traffic flow and trade between South Sudan and Ethiopia through Boma.
- (ii) Arab Bank for Economic Development of Africa (BADEA) – expressed its intent to provide technical assistance in the areas of training engineers and carrying out feasibility and other technical studies/audits in South Sudan.
- (iii) CHINA/EXIM Bank – EXIM Bank has expressed its interest to finance the upgrading of the Juba- Torit section. Based on the current expression of interests, EXIM Bank is requested to support part of the Juba-Kapoeta segment, including provision of site and services for export processing zones and rest stops. China EXIM Bank is also keen to support the upgrading of the part of the Nadapal-Eldoret section, if the Government of Kenya requests. China EXIM Bank would

like to first obtain a commercial contract agreed between the Government of South Sudan and a Chinese contractor to consider financing the road upgrading project.

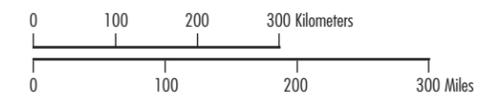
- (iv) European Investment Bank – expressed intent to provide a loan in the amount of US\$50 million on the condition of a design review aiming to reduce the cost of construction and subject to South Sudan signing the Cotonou Agreement and approval by its Board. On the Kenyan side EIB will consider providing a loan in the amount of US\$50 million.
- (v) European Union will consider supporting the corridor development in collaboration with a European promoter like EIB, French Development Agency, German Bilateral Aid (KFW), etc. EU could also provide support to trade facilitation activities and institutional development from its national allocation provided South Sudan signs the Cotonou agreement.
- (vi) Japan International Cooperation Agency– will consider support for the rehabilitation of the road between Eldoret to Marrich Pass on the Kenya side only. JICA has expressed its intention to conduct a joint appraisal with the World Bank. JICA is currently supporting the construction of a new bridge over river Nile in Juba, which facilitates flow of traffic from the transit corridors to the hinterlands. JICA has conducted study to identify alternative corridors linking Gulu, in Uganda to South Sudan, including a road link Via Kitgum, in Uganda and Ikatos and Lobira, in South Sudan.
- (vii) World Bank – for South Sudan, national IDA of US\$50 million has been allocated while the national IDA is expected to leverage contribution from Regional Integration Funds (RIF) under IDA in the tune of US\$100 million. The confirmation for these RI funds is subject to availability of additional resources under IDA16. If this may not succeed RI support will be sought from IDA17. On the Kenyan side, a national IDA of US\$100 million has been allocated to this program. The contribution from the RIF will be assessed in due course depending on the availability of additional resources or under IDA17.
- (viii) Trade Mark East Africa is a potential partner that would support the trade facilitation component, as it is currently actively supporting the establishment of one stop border posts and other trade facilitation measures in the sub-region. TMEA is supporting the SSCS in harmonization of legal frameworks and customs procedures with the neighboring countries. In line with this it has helped in the drafting of a Memorandum of Understanding that was signed between SSCS and Kenyan Customs Authority. TMEA is also supporting SSCS in the process of accession of the EAC Customs Union. TMEA has helped SSCS to join the WCO. Further, it has the intention of computerizing the operations of SSCS. In line with this, it has started to connect the Nadapal Customs Office with the Headquarters of SSCS, as part of the initiative to modernize the SSCS.

- (ix) United States Agency for International Development (USAID) has supported a study for the development of corridors in South Sudan and could be interested to engage in the trade facilitation measure.
- (x) Government Commitments – the South Sudan side committed US\$25 million, while the Kenya will provide 10 percent of the funds to be provided by the Bank.



SOUTH SUDAN EASTERN AFRICA REGIONAL TRANSPORT, TRADE AND DEVELOPMENT FACILITATION PROGRAM

- PROJECT ROADS:
- UPGRADING GRAVEL TO ASPHALT
 - - - CONVERTING TRACKS TO ALL-WEATHER ROAD
 - CONVERTING TRACKS TO ALL-WEATHER ROAD (ALIGNMENT NOT AUTHORITATIVE)
- PRIMARY ROADS
 - + + + PRIMARY RAILROADS
 - CITIES AND TOWNS
 - ⊙ NATIONAL CAPITALS
 - ~ RIVERS
 - - - INTERNATIONAL BOUNDARIES



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