



Master Plan on Logistics in Northern Economic Corridor

Draft Interim Report

April 2016

JICA Study Team

NIPPON KOEI



PADECO

Agenda

1. Objective & Structure of the Study
2. Comprehensive Development Strategy
3. Regional Plan and Industrial Development
4. Way Forward



Objectives & Structure

Objective and Target

Objective of the Consulting Assignment:

- To formulate a Master Plan on Logistics for Northern Economic Corridor, along with integrated regional development strategy consistent with sub-regional development plans and national development plans.

Target Year:

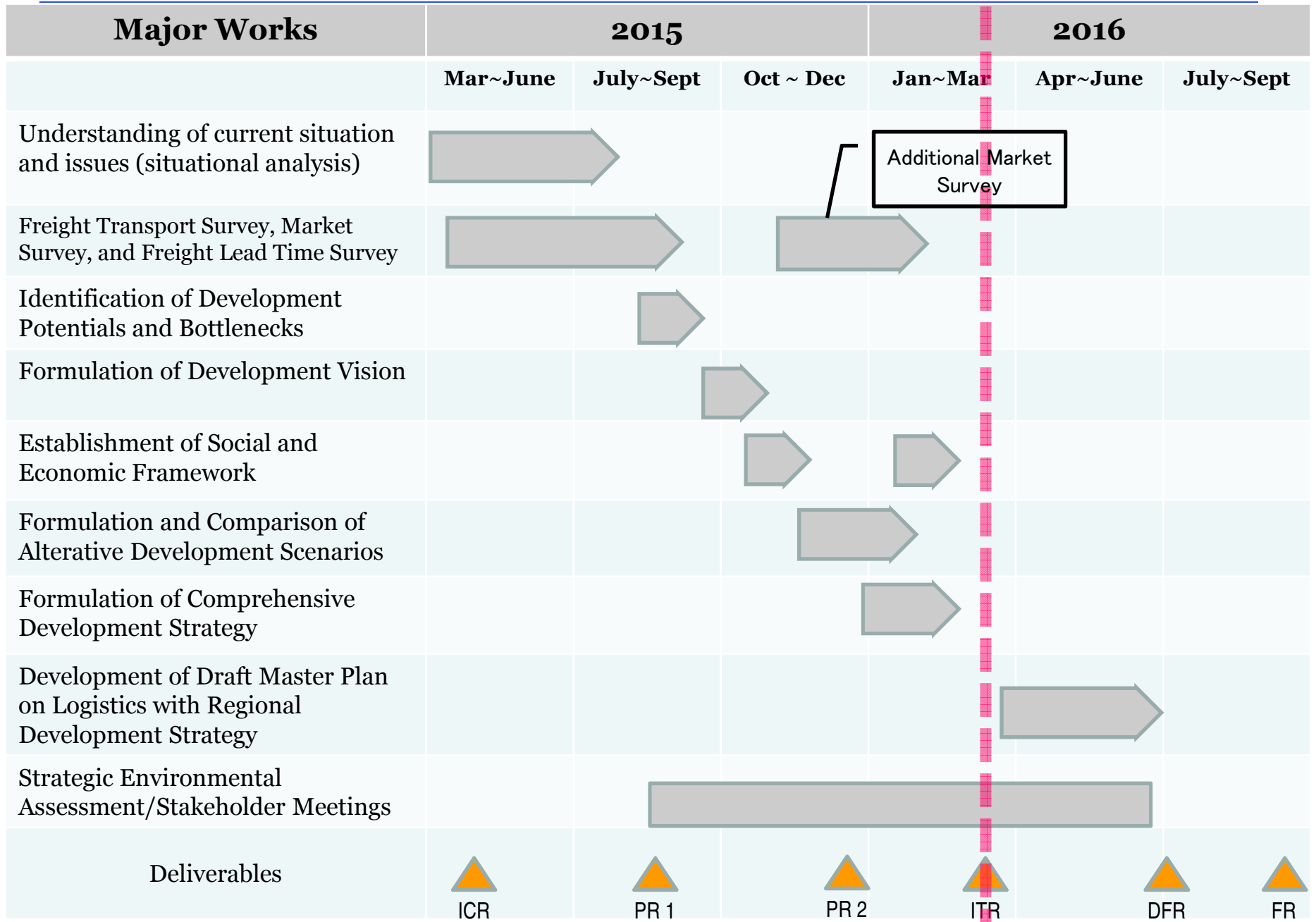
- The target year of the Master Plan is 2030.

Target Area:

- The target area of the study will cover the following routes with its surround area.
 - Main route: Mombasa-Nairobi-Tororo-Kampala-Katuna-(Kigali/Rwanda)
 - Sub-route: Eldoret - Nadapal – (Juba/South Sudan)
 - Sub-route: Tororo - Gulu – Elegu – (Juba/South Sudan)
 - Sub-route: Kampala- Gulu – Elegu – (Juba/South Sudan)
 - Sub-route: Mbarara- Mpondwe– (Kisangani/D.R.C)



Work Schedule



Deliverables

Report	Main Contents	Timeline
1. Inception Report	<ul style="list-style-type: none"> Plan and Deliverables 	April 2015
2. Progress Report No.1	<ul style="list-style-type: none"> Situation Analysis and Preliminary Assessment of Current Bottlenecks 	August 2015
3. Progress Report No.2	<ul style="list-style-type: none"> Bottleneck and Potential Assessment Development Framework for NEC 	December 2015
4. Interim Report	<ul style="list-style-type: none"> Comprehensive Development Strategy for Northern Economic Corridor 	February 2016
5. Draft Final Report	<ul style="list-style-type: none"> Draft Logistics Master Plan with Regional Development Strategy 	June 2016
6. Final Report	<ul style="list-style-type: none"> Final Logistics Master Plan with Regional Development Strategy 	September 2016



***Comprehensive
Development
Strategy***

Proposed Development Vision

“To be the Leading Economic Corridor with Integrated Transport and Logistics Systems in Africa”

(Key words in Vision)

1. **Leading**: to be the leading, most efficient and reliable corridor in Africa and the success of NEC can be disseminated to other African regions.
2. **Economic Corridor**: which stimulates regional economic Development in the area surrounding the corridor through the development of transport infrastructure and logistic facilities and creating industries.
3. **Integrated**: integrated transport and logistics system, which offers diversified and multi-modal options (road, rail, waterway, and pipeline), facilitates regional integration in East Africa, and connects and promotes industrial areas.

Development Issues and Strategies

Development Issues

1. Issues on Region

- (1) Concentration of Functions on Capitals
- (2) Lack of linkage between production areas and logistics hub
- (3) Outflow of income due to excess of imports
- (4) Lack of trade within the region

2. Issues on Industry

- (1) Lack of export oriented goods
- (2) Strength of industries with strong forward and backward linkage
- (3) Lack of information on potential and weak promotion of mining and energy resources

3. Issues on Logistics

- (1) Integration and efficiency of multi modal infrastructure
- (2) Development of efficient road network as basic infrastructure
- (3) Bottlenecks of logistics
- (4) Transportation Safety

Development Strategy

1. Regional Strategy

- (1) Linking with agricultural and mineral resource areas through promotion of Secondary Cities
- (2) Linking with LAPSSET, Central Corridor and Kampala-Juba-Addis Ababa- Djibouti Corridor

2. Industrial Strategy

- (1) Promotion of Growth Drivers
- (2) Connecting industrial and trade areas to logistic hub through COD
- (3) Establishment of logistics hubs

3. Logistics Strategy

- (1) Modal shift from truck to rail and pipeline
- (2) Reduction of bottlenecks of cargo transportation
- (3) Improvement and utilization of existing transport infrastructure (inland water, airport and Mombasa port)

Comprehensive Development Strategies

Development Strategies to attain the proposed Development Vision

1. Regional Strategy

- (1) Linking with agricultural and mineral resource areas through promotion of Secondary Cities
- (2) Linking with LAPSSET, Central Corridor and Kampala-Juba-Addis Ababa- Djibouti Corridor

2. Industrial Strategy

- (1) Promotion of Growth Drivers
- (2) Connecting industrial and trade areas to logistic hub through COD
- (3) Establishment of logistics hubs

3. Transport Strategy

- (1) Modal shift from truck to rail and pipeline
- (2) Reduction of bottlenecks of cargo transportation
- (3) Improvement and utilization of existing transport infrastructures (inland water, airport and Mombasa port)

Supported by...

4. Organizational and Policy Strategy

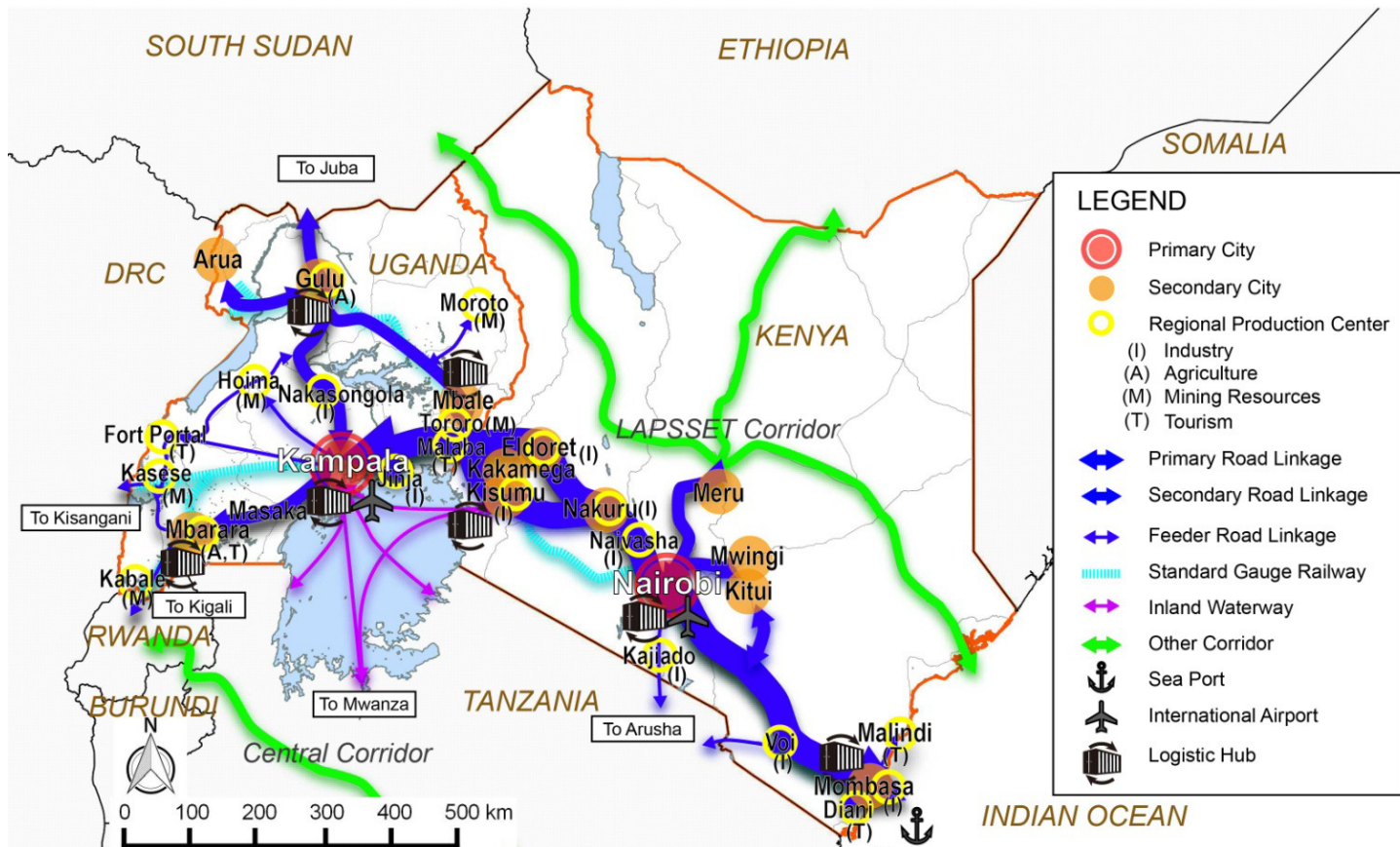
- (1) Role of the government for logistics and multi-modal transport
- (2) Regional coordination or logistics

5. Financial Strategy

- (1) Diversifying financial sources
- (2) Expanding revenue sources for cost recovery

1. Regional Strategy (1/2)

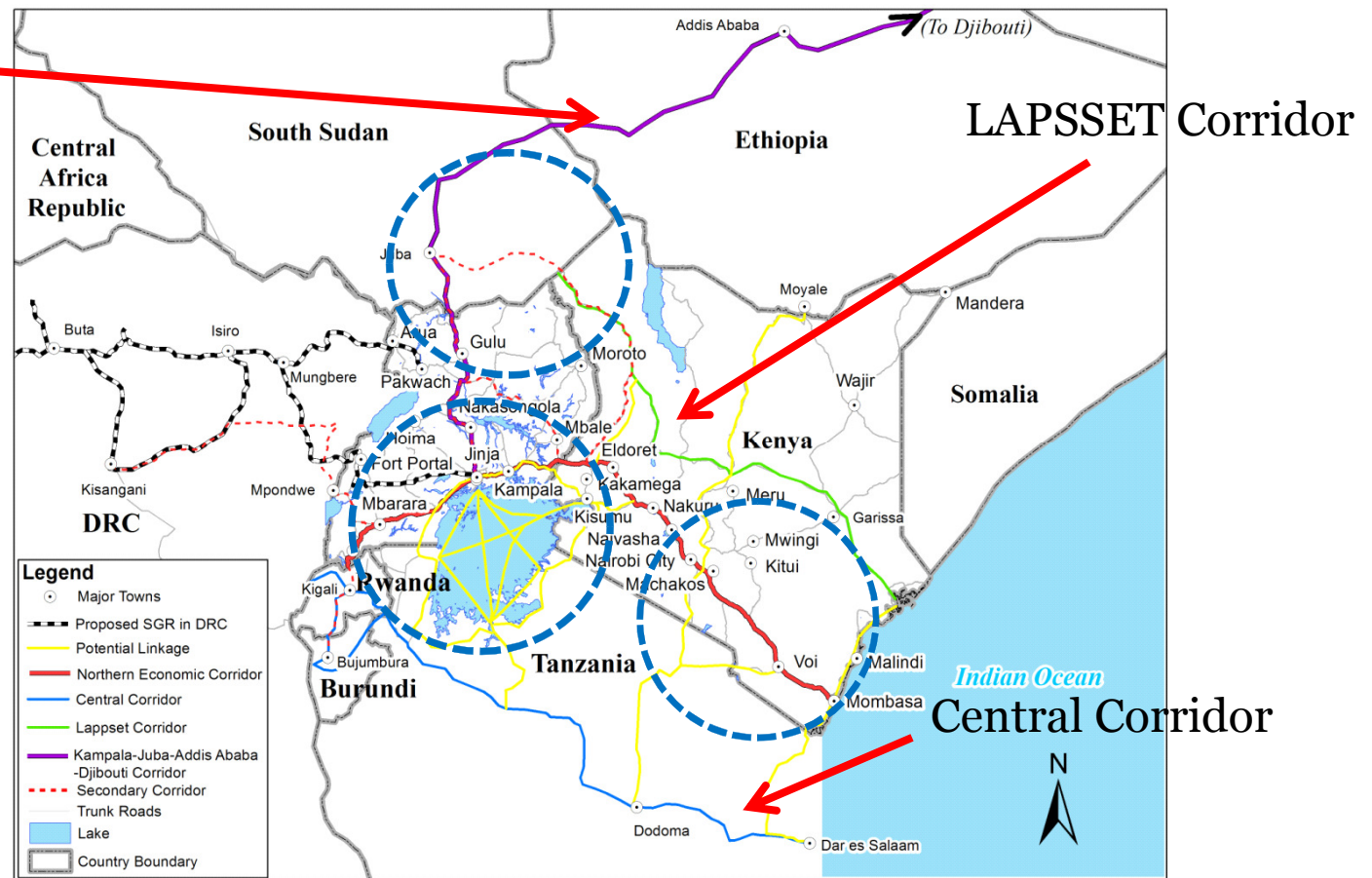
- (1) Linking with agricultural productive areas and mineral resources through secondary cities development
⇒ Smooth transportation of products and balanced development of the region



1. Regional Strategy (2/2)

- (2) Linking with LAPSSET Corridor, Central Corridor and Kampala-Juba-Addis Ababa- Djibouti Corridor
⇒ Creating larger market and strengthening linkage of East Africa region

Kampala-Juba-Addis Ababa-Djibouti Corridor



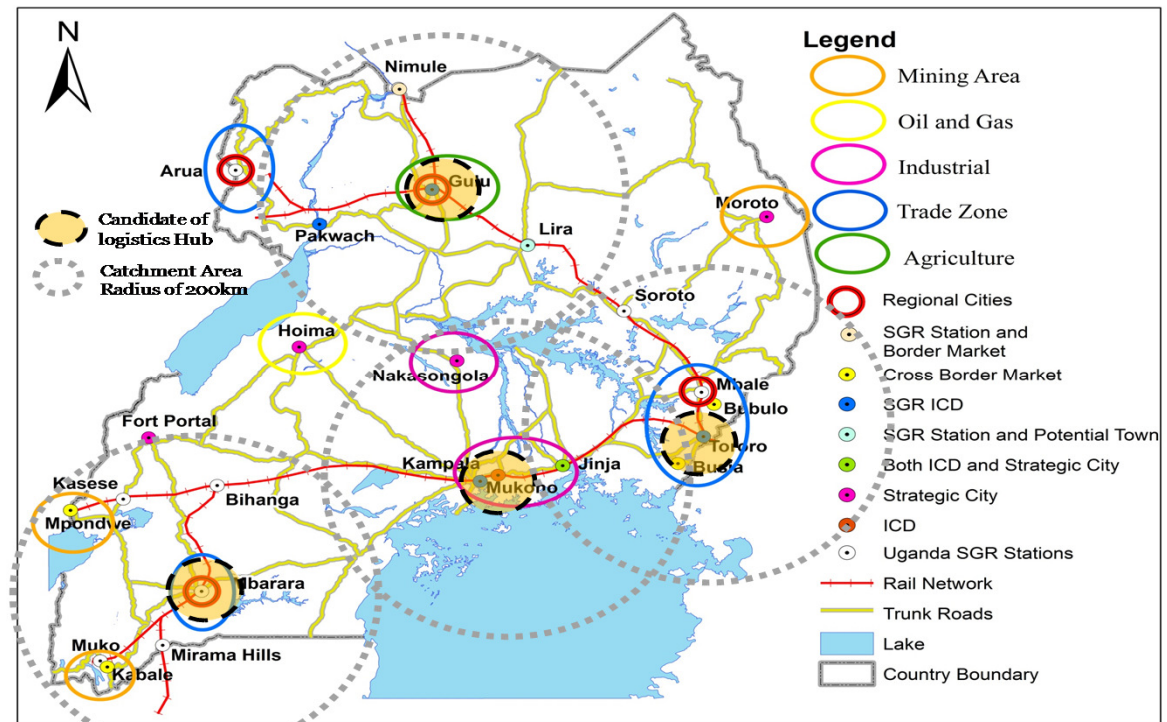
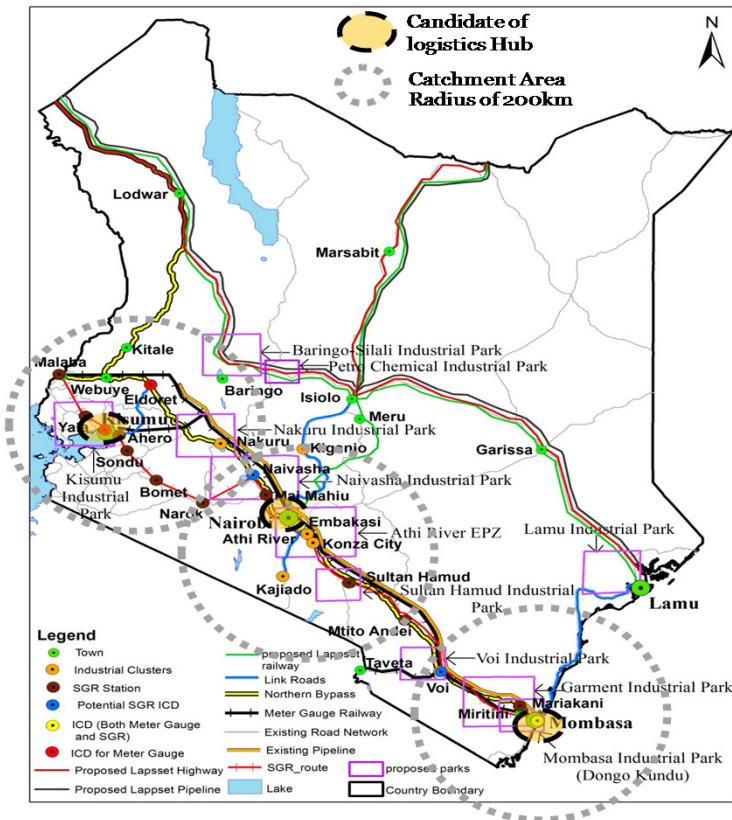
2. Industrial Strategy (1/3)

- (1) Promotion of growth drivers to increase export, replace current import, and develop local economy
 ⇒ improving of the export (85% of increased export) and reducing import (10% of increased import)

Category	Kenya	Uganda
Expansion of Export	Tea, Coffee, Cut Flower, Processed Fruits and Vegetable, Crude Oil, Niobium and Rare Earth Elements, Construction Materials (e.g., iron and steel, glass), Consumer Goods (e.g., soaps and detergents, processed foods), Textile and Apparel, Leather	Coffee, Oil Seeds, Crude Oil, Phosphate, Other Minerals (e.g., gold, iron ore, wolfram, tin, tantalite, copper etc), Leather, Construction Materials (e.g., iron and steel), Consumer Goods (e.g., soaps and detergents, processed foods)
Replacement of Current Import	Rice, Soda Ash	Palm Oil, Rice, Petroleum
Value Addition to Local Economy	Meat Production, Plastics Packaging, Coal, Natural Gas, Tourism, Logistic Service	Meat Production, Leather articles, Tourism, Logistic Service
<u>Total</u>	<u>20 Drivers</u>	<u>15 Drivers</u>

2. Industrial Strategy (2/3)

(2) Connecting industrial areas to logistic hubs through Cargo Oriented Development (COD)
 ⇒ Efficient Logistic Network for Industrial Promotion

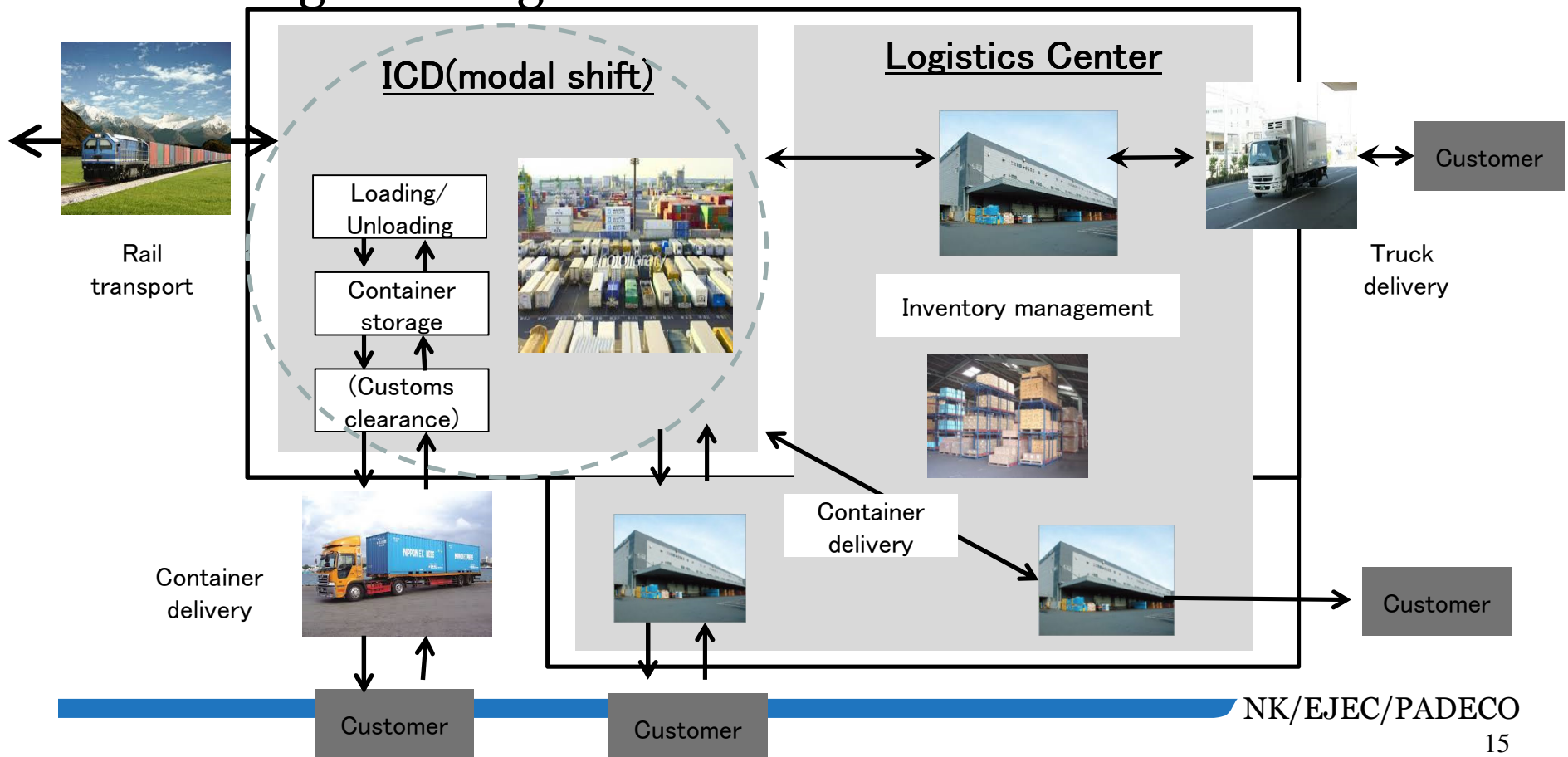


Kisumu, Nairobi and Mombasa

Mbarara, Kampala, Gulu, Tororo

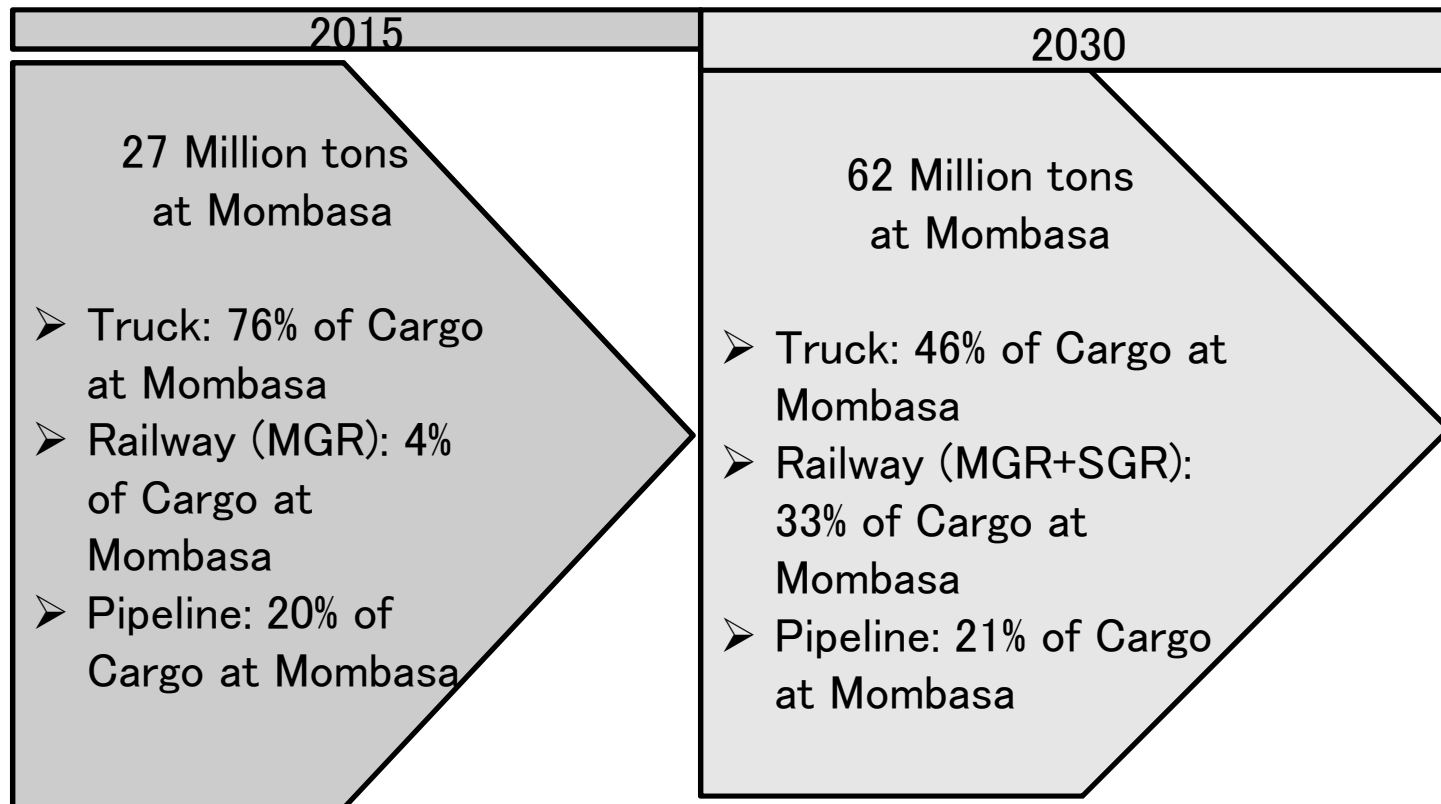
2. Industrial Strategy (3/3)

- (3) Establishment of logistic hubs with ICD and Logistic Center
⇒ ① Efficient Linkage of railway, truck and inland water transport, ② Reduction of empty container (7% of reduction of truck transport at Mombasa), ③ Promotion of Regional Logistics Service



3. Transport Strategy (1/3)

(1) Modal shift from truck to rail and pipeline



- The transit cost of SGR should be almost 50% of truck's transit cost
- The replacement of old pipelines and establishment of new ones with expanded capacity should be done as planned.

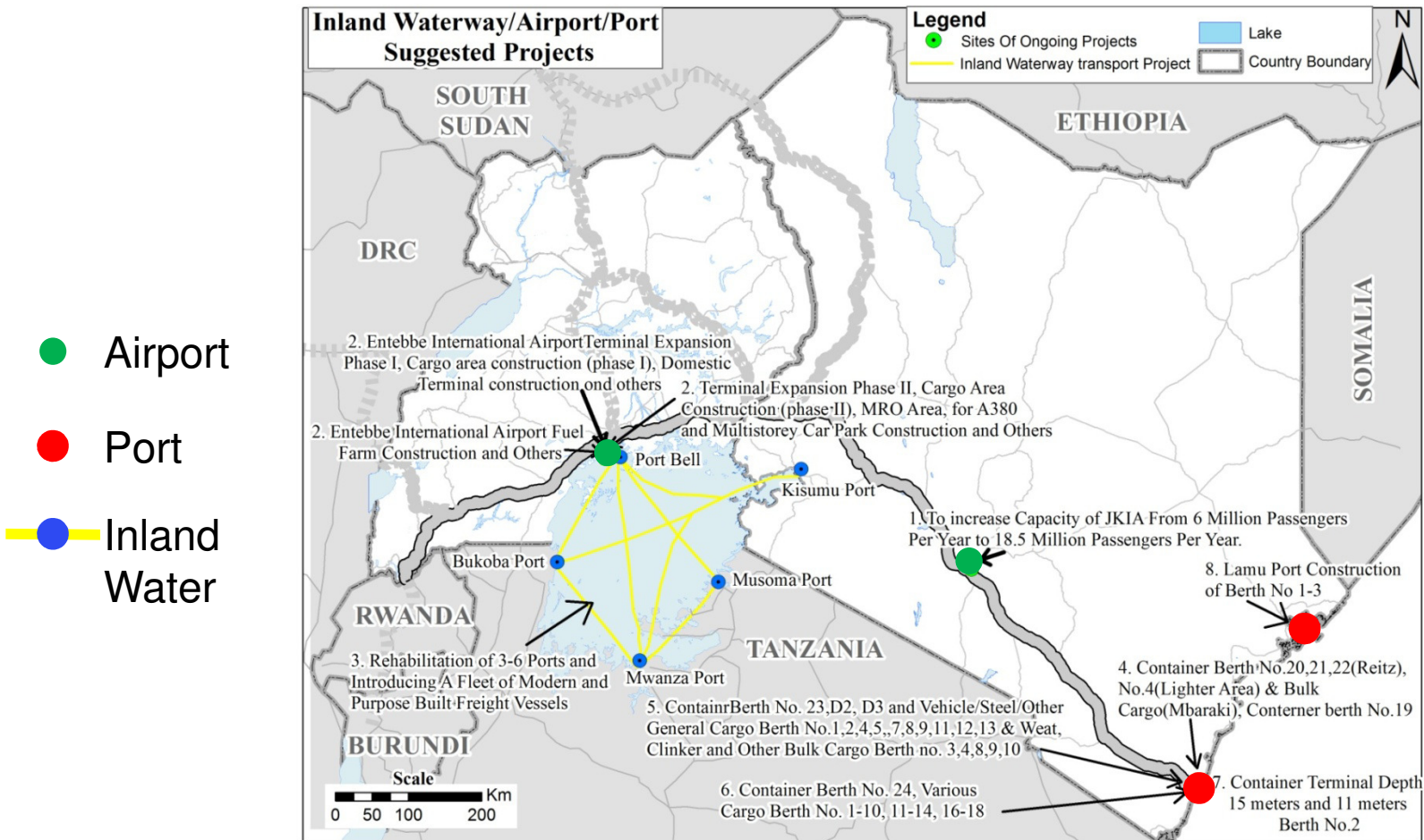
3. Transport Strategy (2/3)

(2) Reduction of bottlenecks of freight traffic and logistics
 ⇒ Reduction of time (1.5-2.0days for import and 2.0-2.5days for export)

Bottlenecks	Current situation	Future target
Custom clearance in Mombasa	Currently it requires around 4.0-6.0 days for port discharge and custom clearance in Mombasa for transit.	Within 1.0-2.0 day for transit or 1.0 day at CFS in addition to less than 2.0 days for port discharge.
Access road to Mombasa (8km)	It takes around maximum of 12 hours to reach Mombasa Port due to congestion	Shorten the time through infrastructure development
One Stop Border Post in Malaba	It requires 1.5 day for border crossing	Shorten within 3 hours by multi-lane border for petro cargo, etc. through full implementation of SCT scheme
Inland Container Depot (ICD)	Services in ICD are limited and no empty container depot is functional	Develop modal shift function, empty container depot, etc.
Export of goods at port	It takes 2 days waiting for scanning	Shorten the time by introduction of registration of Authorized Economic Operators(AEO), etc.
Many traffic Accidents by trucks	Many traffic accidents along Northern Economic Corridor	<ul style="list-style-type: none"> •Safety design of road •Establishment of truck service station

3. Transport Strategy (3/3)

(3) Improvement and utilization of existing transport infrastructures (inland water, airport and Mombasa port)
 ⇒ Realization of multi modal transportation



- Airport
- Port
- Inland Water

4. Organizational and Policy Strategy

(1) Clarification on role of the government in logistics

- Although the institutional and regulatory framework for transportation system has been developed, those for logistic activities are under developed.
- It is therefore necessary to define the role of the government as a regulator for logistic activities. And standardization of logistics service also should be considered.

(2) Regional coordination for logistic improvement

- Regional coordination for planning and monitoring for the NEC has been implemented by NCTTCA.
- The function of NCTTCA with coordination between Ministries concerned in both Kenya and Uganda should be maintained.

5. Financial Strategy

(1) Diversify financial sources

- Currently, financing for infrastructure is largely limited to government grants and external sources.
- It is therefore important to diversify sources of funding. PPP arrangement and infrastructure bonds could be considered for commercially oriented projects.

(2) Expanding government revenue sources for cost recovery

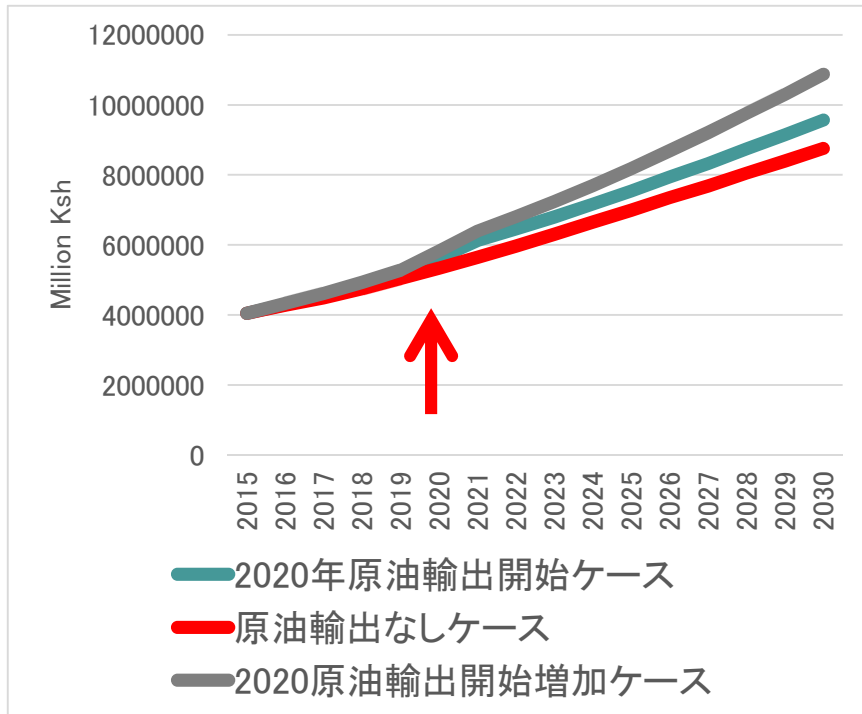
- Internally generated sources, or cost recovery from users, are currently limited to road maintenance and airport operation in the transport sector.
- Cost recovery from users to be expanded as much as possible in order to meet the increasing financing needs and enhance financial sustainability.



***Regional Plan
and
Industrial
Development***

Economic Framework

Kenya



Uganda

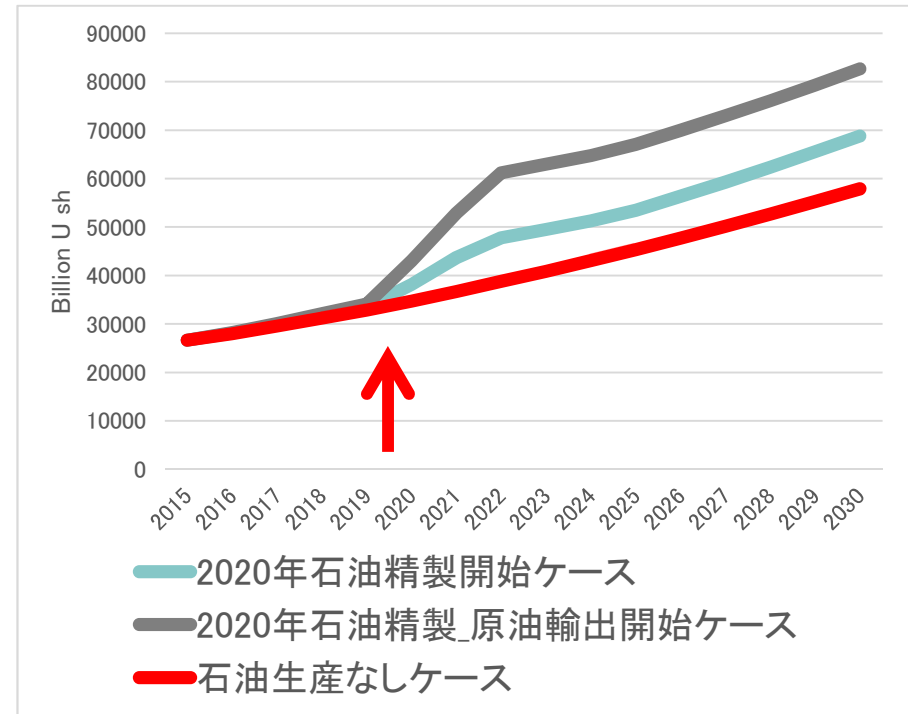


Figure: GDP Growth Estimation

- Kenya: Estimation of 6.0-6.5% Growth, Uganda: Estimation of 5.0-6.0% Growth (Case: **—**)
- Export of crude oil from Kenya and production of petroleum in Uganda will start in 2020, although recent low price of crude oil makes it unpredictable.

Export Destination of Kenya and Uganda

- EAC and African region are largest export destination
 - Kenya : EAC 23%, Whole Africa 45%
 - Uganda : EAC 29%, Whole Africa 66%

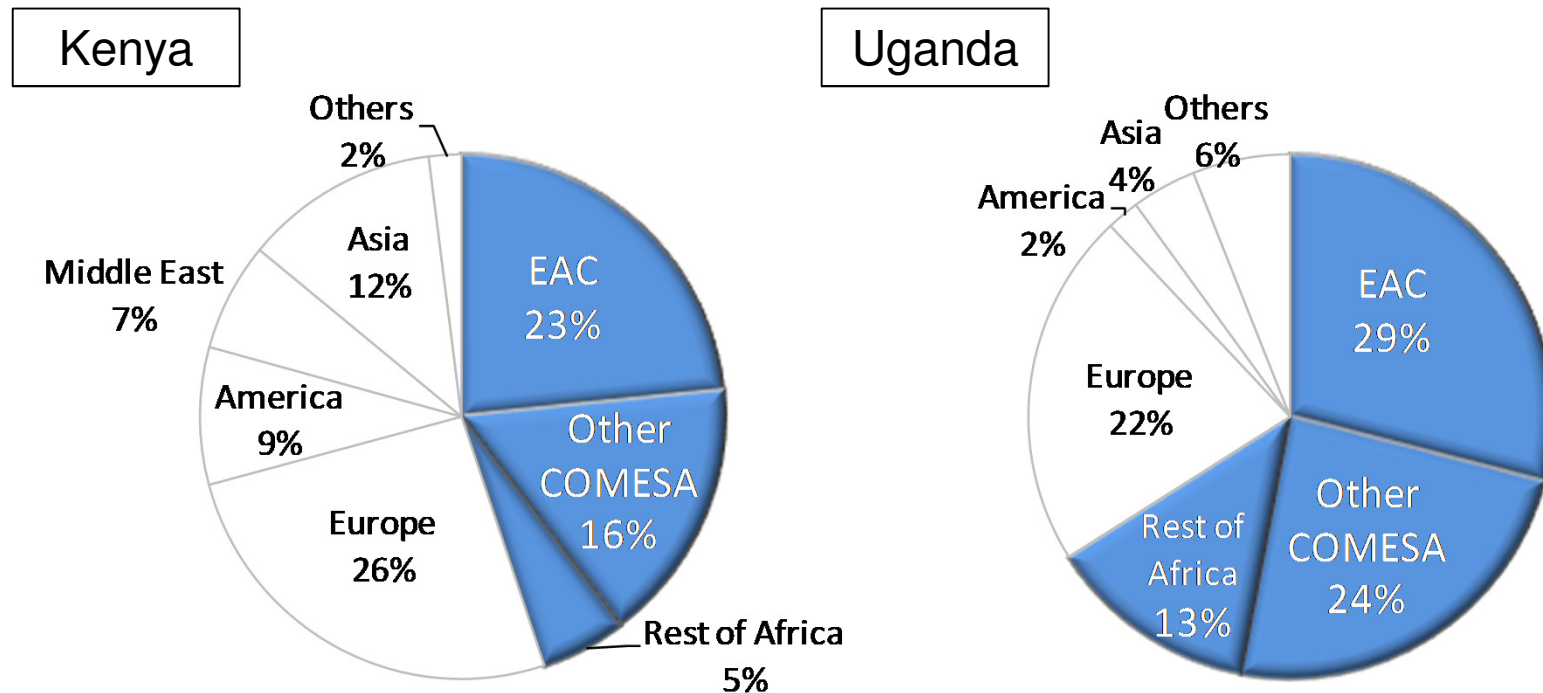


Figure: Composition of Value Volume by Export Destination (Kenya:2014, Uganda: 2013)*

- EAC and nearby African region will continue to be the main export destination, therefore **linkage between production area, NEC and other corridors is important.**

Regional Structure Plan

- Current Status and Issues: **Excess of Import** and **Concentration of Functions on Capitals**
- Proposed Method: **Promotion of Production Center and Secondary Cities**

<Current Status and Issues>

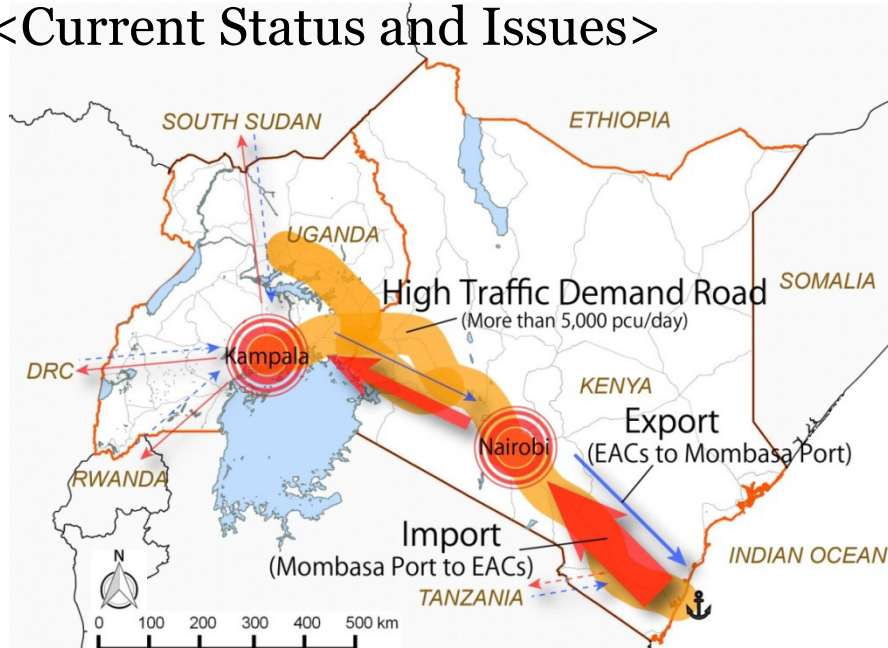


Figure: Issues of Regional Structure

- | | |
|--|------------------------------------|
| 1) Excess of Import | 2) Concentration of Functions |
| - Import: Export=9:1 ^{*1} | - Population in Urban Centers |
| ⇒ Outflow of income from the region | : Nairobi Area ^{*2} :33% |
| | : Kampala Area ^{*2} : 37% |
| | - GDP : Nairobi: 40-50% |
| | ⇒ Imbalanced Development |

<Proposed Method>

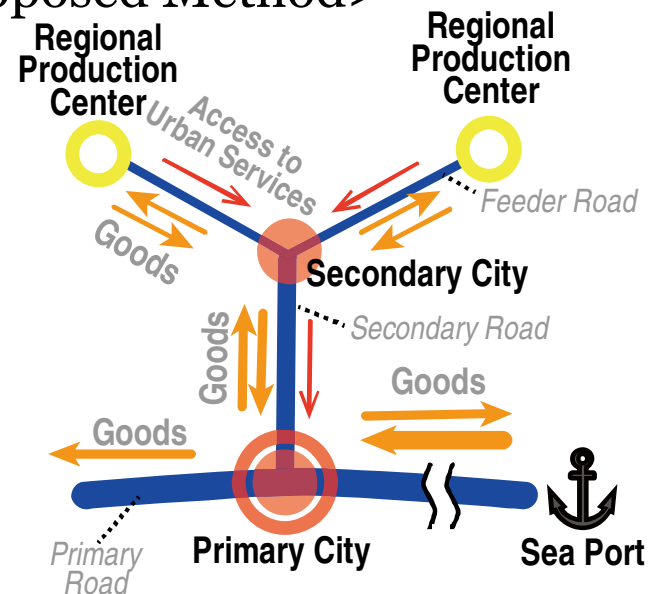


Figure: Concept of Proposed Regional Structure

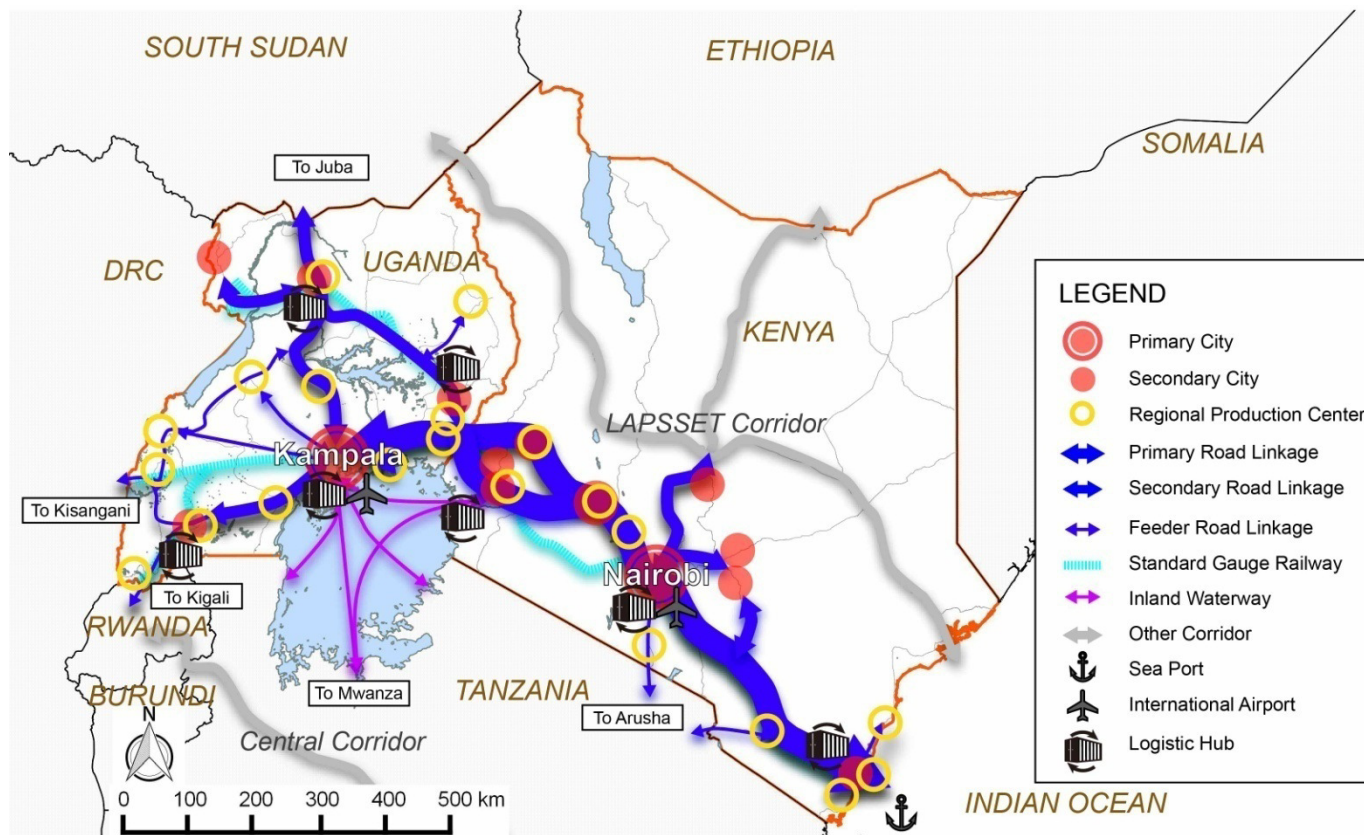
- Promotion of export and import replacement through **promoting key industry of production centers and linkage with Northern Economic Corridor**
- More regional urban and logistics function **through promotion of secondary cities.**

*1: Cargo traffic volume between EACs and Mombasa (Source: OD and Traffic Survey in 2015 by JICA Study Team)

*2: Area within 50km radius from capital cities (Source: Census 2009 in Kenya and Census 2014 in Uganda)

Spatial Structure Plan: Alternative -C

“Multi-core with Regional Industrial Development Type”

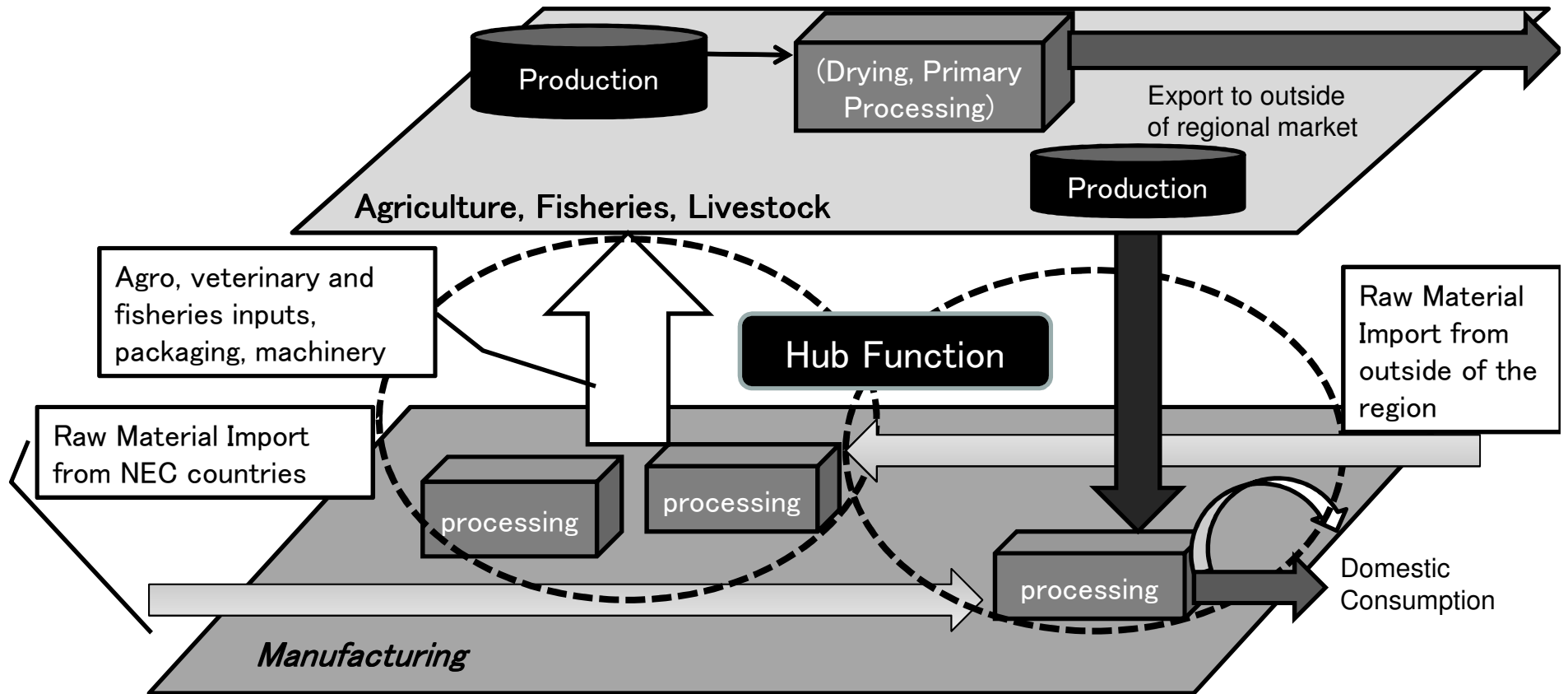


- Urban and logistics function of “Secondary Cities” will be promoted to make them hubs of business, commerce, service and logistics for surrounding region.
- Export will be expanded through promotion of key industries of “Regional Production Centers”

Merit: Expansion of export and improvement of imbalanced freight volume, Balanced development for the region, and Improvement of living condition

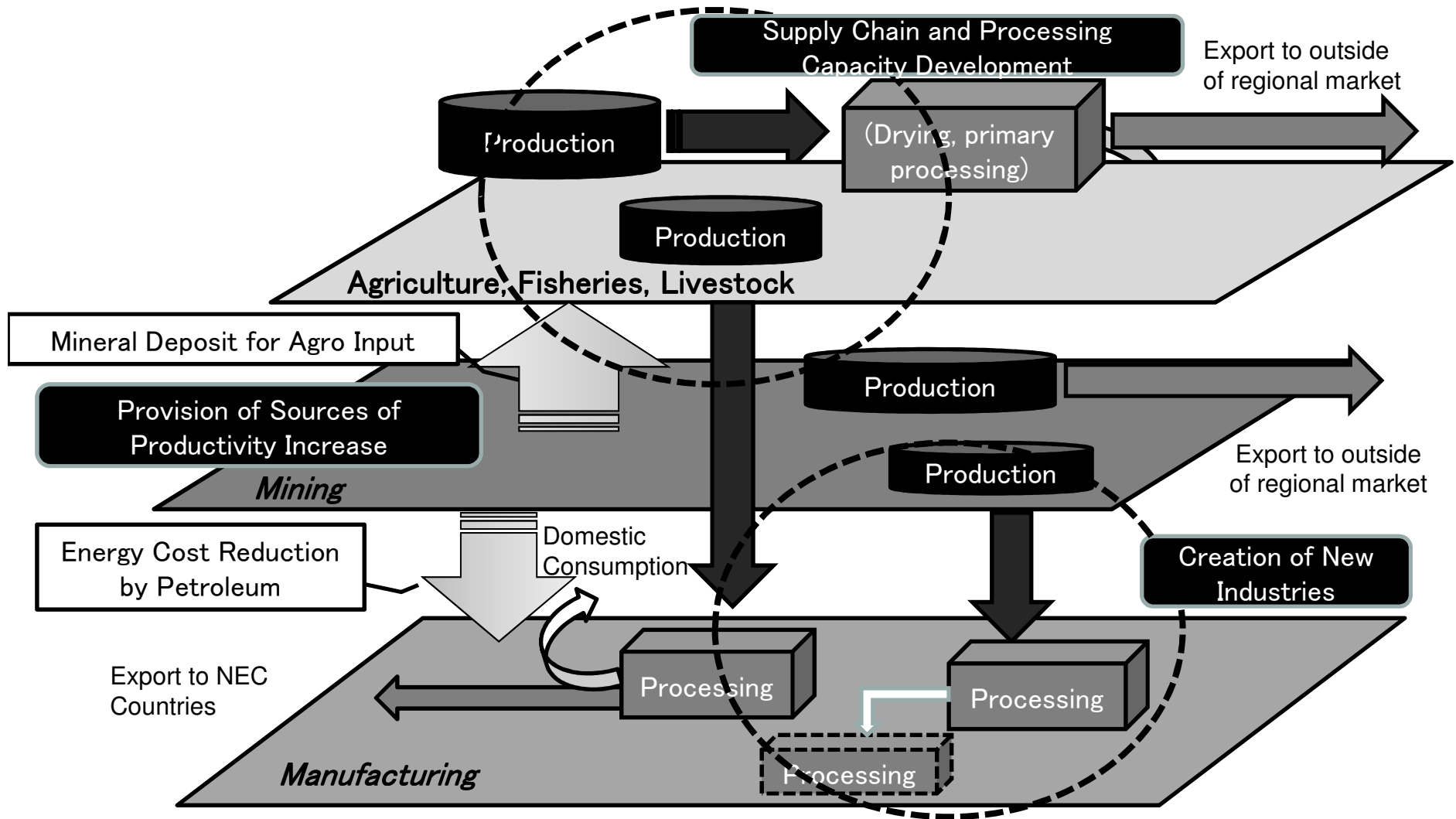
Demerit: High initial cost and additional expansion of public management capacity and legal framework.

Approach of Industrial Development (Kenya)



- Expansion of export products
- Promotion of products which grows with strong forward and backward linkages
- Promotion of industries which process raw materials from other countries and produce export products.

Approach of Industrial Development (Uganda)



- Value addition on production is limited.
- Petroleum and phosphate will influence future industrial development.

Growth Driver of Industries

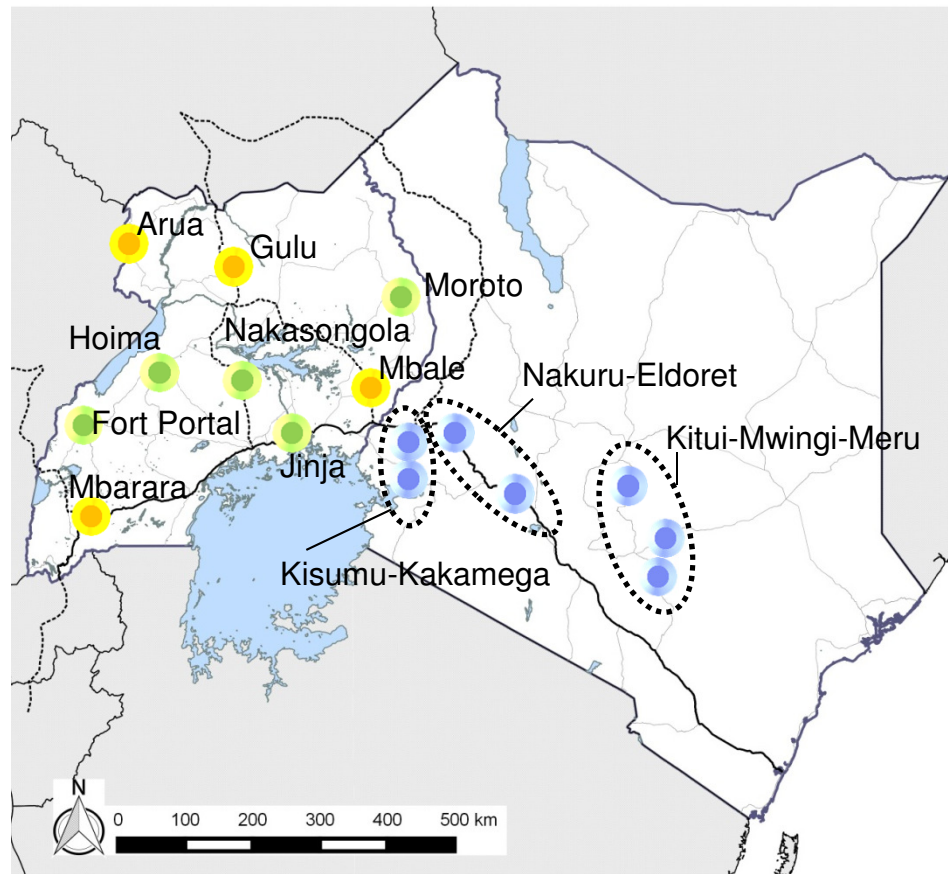
- The following 35 kinds of products are selected as growth driver which will leads industrial development.

Category	Growth Driver	
	Kenya (20 Kinds of Product)	Uganda 15 Kinds of Product)
A) Expanding markets for net profit	<ul style="list-style-type: none"> Soda Ash Coffee Tea Meat Rice 	<ul style="list-style-type: none"> Niobium (Rare Earth) Consumer Goods (soaps, cosmetics, etc), Construction Materials (cement, iron, etc.) Processed Fruits and Veg.
B) Strategic Products	<ul style="list-style-type: none"> Crude Oil Coal 	<ul style="list-style-type: none"> Natural Gas Petroleum
C) Industries with strong linkages	<ul style="list-style-type: none"> Cut Flower 	<ul style="list-style-type: none"> Apparel Industry Leather Industry Packaging
D) Others	<ul style="list-style-type: none"> Tourism 	<ul style="list-style-type: none"> Leather Products Consumer Goods (soaps, detergents, etc.) Construction Materials (iron and steel) Other Minerals (gold, iron ore, tin, tantalite, etc.) Palm Oil Logistics Service

- Those growth drivers are mainly promoted to expand export, import replacement and contribution to regional economic.

Proposed Projects in Urban Development Sector

- The following projects are proposed for **planned regional urbanization, and land use management plan.**



【Kenya】

- 1) Preparation of strategic urban development and investment plans for metropolitan regions
- 2) National Land Information Management
- 3) Preparation and implementation of integrated land use framework and plan

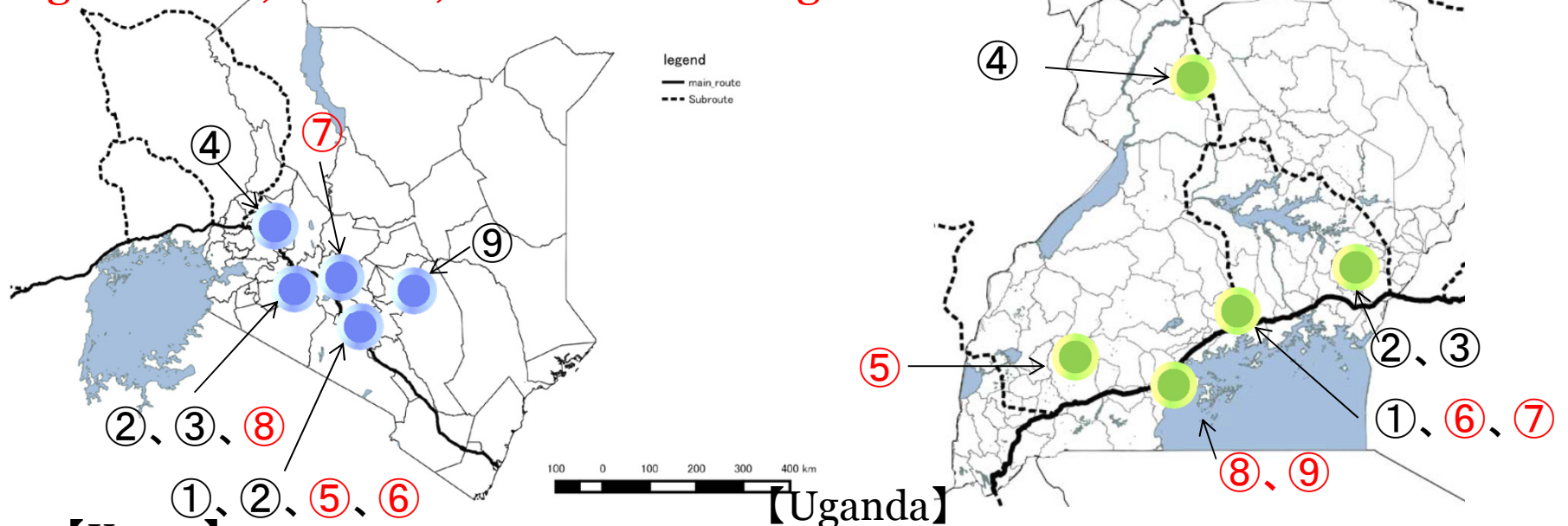
【Uganda】

- 1) Strategic development and investment plans for regional cities
- 2) Strategic development and investment plans for strategic cities
- 3) National Land Information Management
- 4) Integrated land use framework and plan

- : Kenya: Strategic urban development and investment plans for metropolitan regions
- : Uganda Strategic development and investment plans for regional cities
- : Uganda Strategic development and investment plans for strategic cities

Proposed Projects in Agriculture Sector

- The following projects are proposed for **promotion of growth drivers, organization, finance, fertilizer and irrigation.**



【Kenya】

- | | |
|---|--|
| ① Agricultural financing Improvement | ⑤ Specialty coffee export promotion |
| ② Food processing hub development program | ⑥ Tea brand development |
| ③ Distribution improvement program of commercial crop | ⑦ Flower export promotion |
| ④ Fertilizer Promotion | ⑧ Value chain of livestock development |
| | ⑨ Mwea Irrigation |

【Uganda】

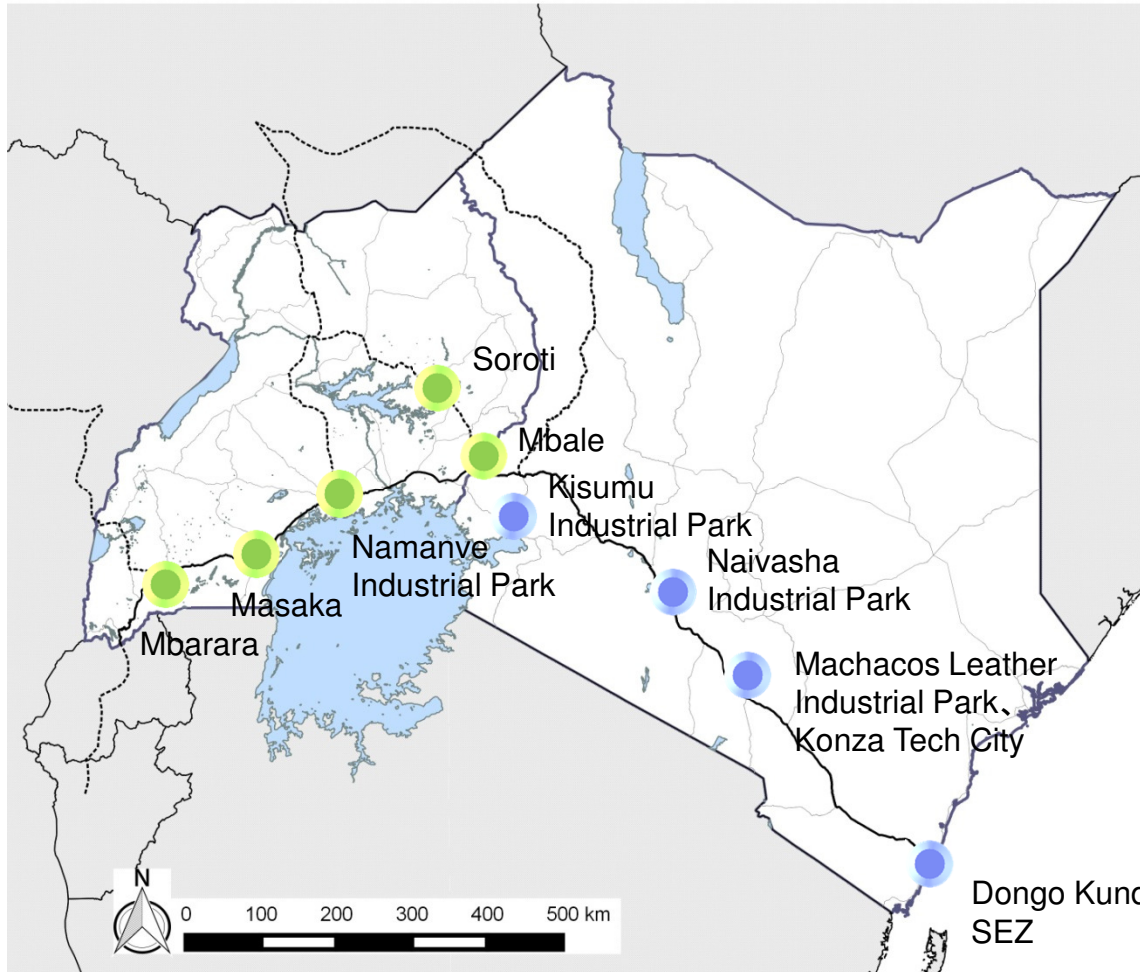
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| ① Agricultural union commercialization support |
| ② Irrigation Scheme Development project in Central and Eastern Uganda |
| ③ Fertilizer Promotion |
| ④ Superior seed production enhancement projects for small sesame farmers support |
| ⑤ Rice Production Promotion |
| ⑥ Meize promotion support |
| ⑦ Specialty coffee export promotion |
| ⑧ Livestock processed products promotion |
| ⑨ Kalangala PPP |

NK/EJEC/PADECO

Remark: :Projects in red color indicates the one which has direct impact on growth driver, and the black one has indirect impact

Proposed Projects in Manufacturing Sector

- The following projects are proposed for **promotion of growth drivers and development of SEZ/Industrial area.**



【Kenya】

- 1) SEZ and Industrial Area Development Project
- 2) Package Industry for Food Processing Promotion Project

【Uganda】

- 1) Industrial Area Development Project
- 2) Leather Products Infrastructure Improvement Project

- : Kenya SEZ and Industrial Area Development Project
- : Uganda Industrial Area Development Project

SEZ: Special Economic Zone

Proposed Projects in Mining Sector

- The following projects are proposed for **oil development, support of coal development and data collection of mining resources.**

- 【Uganda】**
- Oil Product Tailing Pipeline from Refinery
 - Cross Border Product Oil Pipeline
 - Mining Master Plan



- 【Kenya】**
- Coal transportation infrastructure development
 - Extension of Oil pipeline project

Proposed Projects in Power, Water Resource and ICT

Current Situation and Issue

■ Power

- Both countries will increase generation of electricity which is more than peak demand by 2030.
- Kenya: Coverage rate of electrification is 30% of population. Target at 2030 is 50%, so it's necessary to acceralate development of the network.

■ Water Resource

- Kenya: Severe shortage of water will occur in many regions in 2030 (Kenya Water Resource MP) . Implementation of the projects proposed by the Water Resource MP is necessary.
- Uganda: There are possibility of shortage of water occasionally in some regions. A detailed survey and water resource development are necessary.

■ Information, Communication and Technology (ICT)

- Lack of internet infrastructure in rural area and increase of communication data volume

Proposed Project

Kenya: 1)Improvement of accessibility to power network, 2)Extension of the National Transmission Network

Uganda: 1) Acceleration of rural electrification, 2) Promotion of energy efficiency (Reduction of substations and transmission loss), 3)Promotion of renewable energy

Kenya: Dams and water transfer development in 7 regions

Uganda: Study on water resource in Lake Victoria catchment area, 2 dams development

Both: Development of ICT infrastructure including optic fiber cable (with using typical duct along SGR and oil pipeline)

Way forward

Following works shall have been completed by June 2016:

- Revision of Master Plan based on comments for Interim Report:
 - Validity of Freight Traffic Demand Forecasting and Forecasting Scenario
 - Validity of Suggested Projects
 - Validity of Comprehensive Strategy
 - Review of Impact on Finance
 - Review of Organizational Structure
- Implementation of SEA (to be continued up to June 2016);
- Implementation of 2nd Stakeholder Meetings in April and May 2016;
- Implementation of Study Program to Japan in June;
- Preparation of Draft Final Report in June; and
- Arrangement of Joint Steering Committee to be held in Uganda.

Thank you