



REPUBLIC OF KENYA

MINISTRY OF ROADS AND TRANSPORT

NORTHERN CORRIDOR

Fresh Produce Transportation by Railways and the Sea

25th March 2024



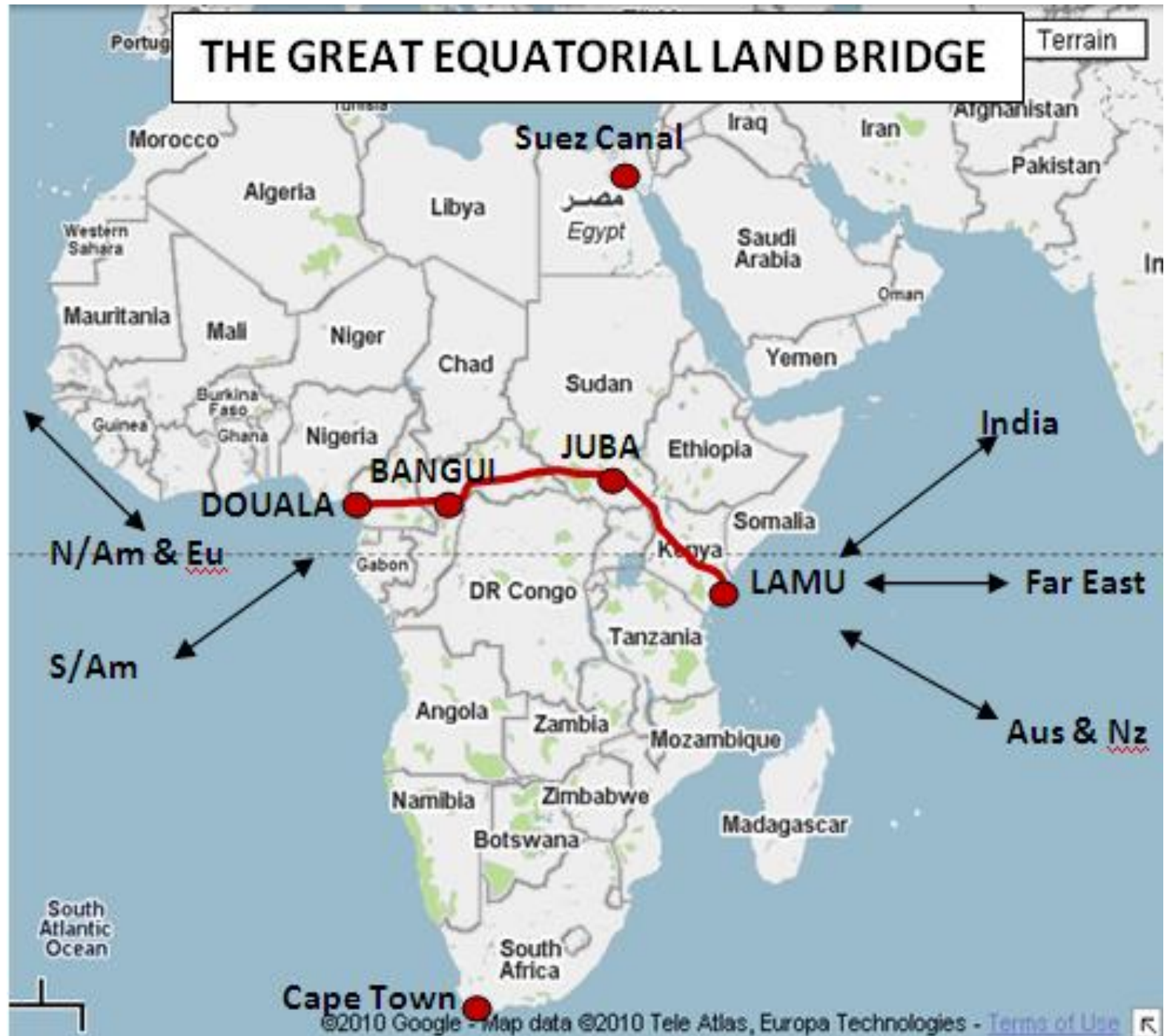
Kenya's initiatives towards greening freight

- Kenya's initiatives towards greening freight:
- Investing in new and modern railways (new SGR and improved MGR)
- Improving management of rail infrastructure to encourage shifting of cargo from Roads to Railway
- Transportation of Fresh Produce by the railway and the sea - Reefers on powered trains
- Fleet upgrading - modern and lower emissions trucks (engines and aerodynamic cabins)
- Shore power at the Ports

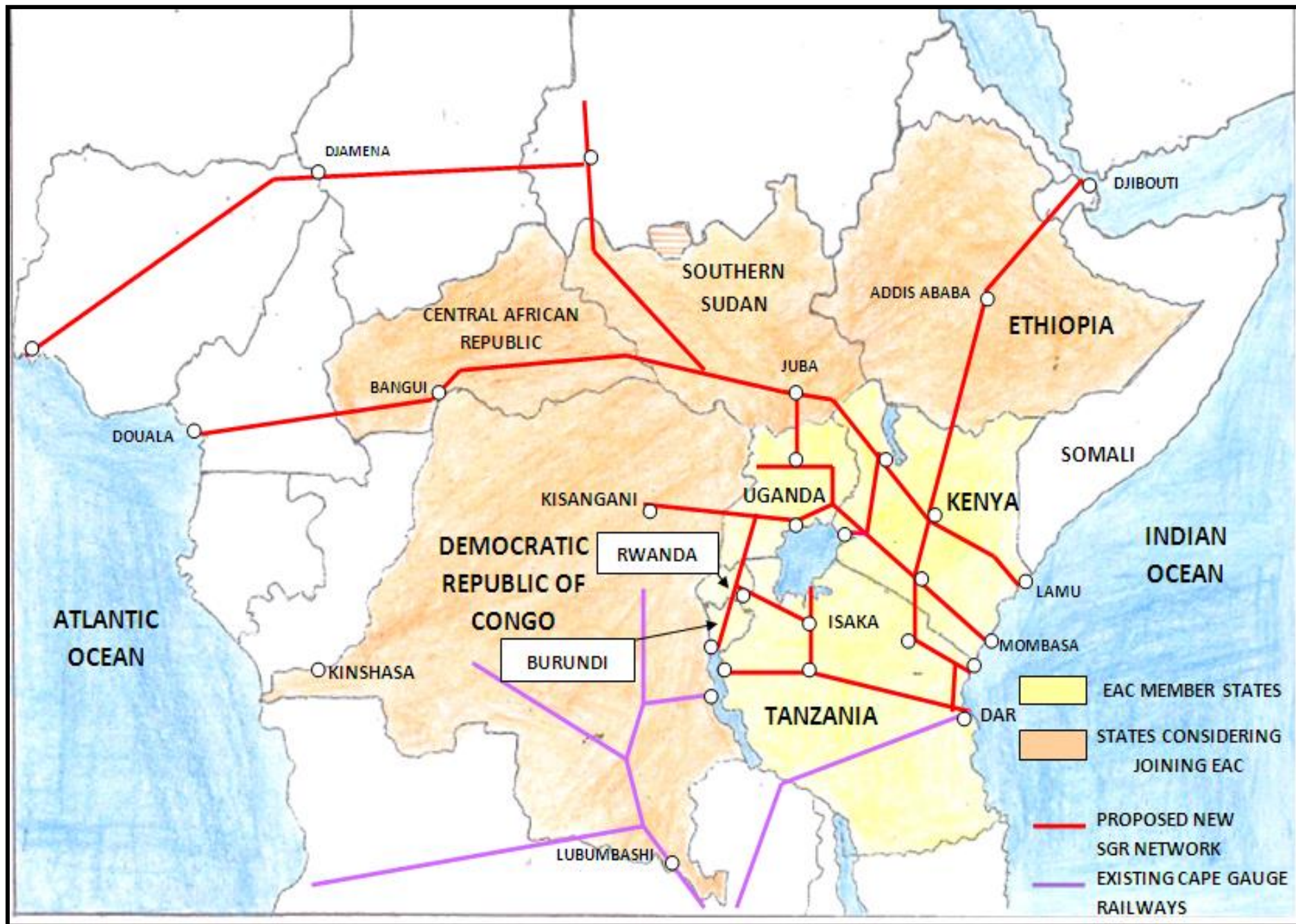
Kenya's initiatives towards greening freight

- Greener and Cleaner Fuels - Electric Mobility, Hydrogen, ethanol, wind power, solar power (photovoltaic and thermal), bioenergy (organic matter burned as a fuel), hydro (power and electricity), geothermal, nuclear fusion, ocean thermal energy conversion, and tidal & wave energy.
- Better data information on greenhouse gas emissions on freight transport - to improve energy efficiency

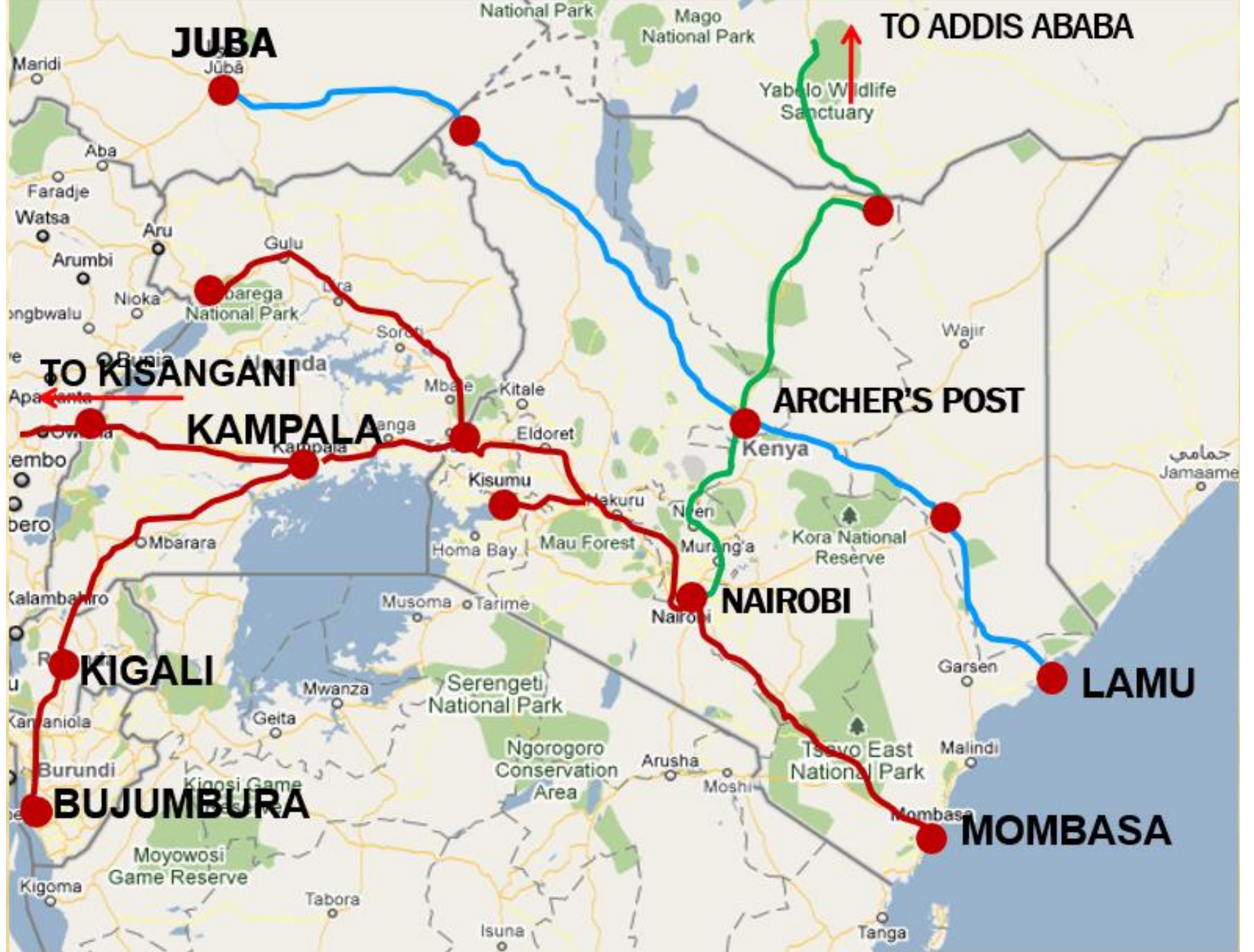
Transport Corridors - Africa



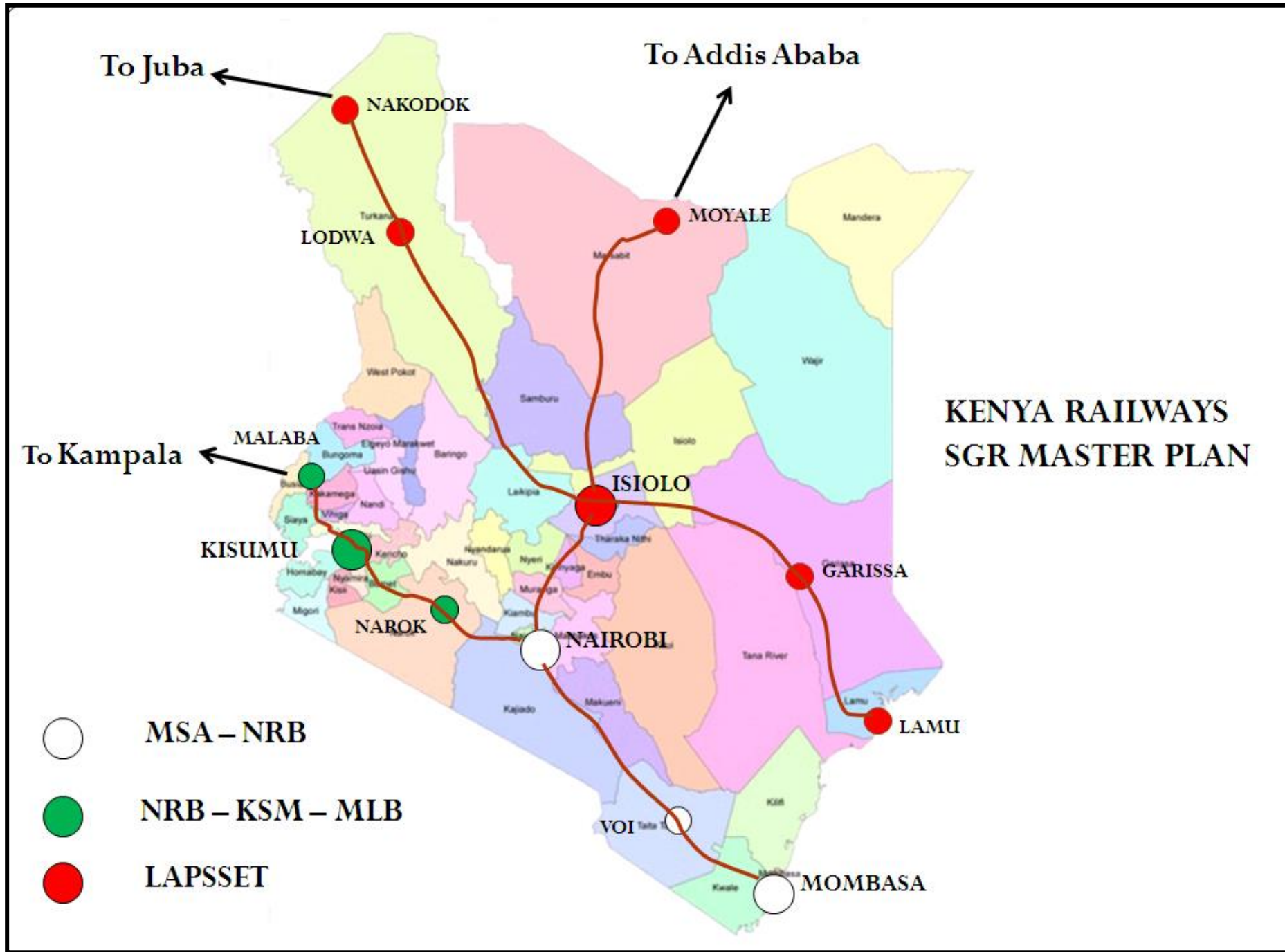
Transport Corridors - EAC



Northern Corridor



SGR Railways Corridors - Kenya



eBike
2 Wheelers, Mopeds, & 3
Wheelers

R&D costs time and money



eTruck
JAC N75EV
4 Tonnes

from

Jianghuai
Automobile Co
Ltd





NAIROBI CITY COUNTY

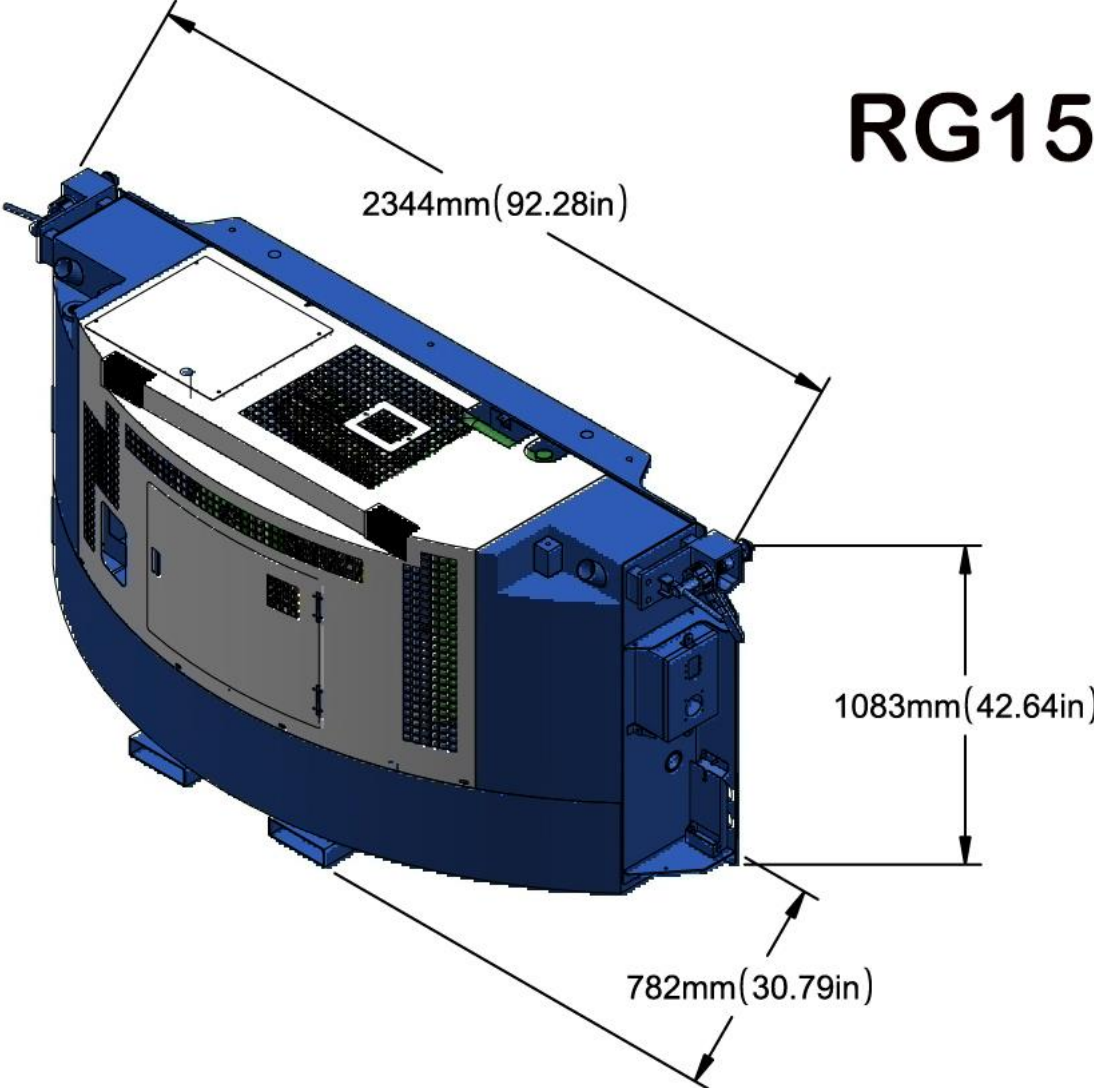




Reefer Container Transportation by Road




Clip-On GenSet for Reefer Container



Consolidation Centre – Site Planning Layout

1.5 Miles to  →

 **GWRR Dual Service Rail Line**



Consolidation Centre – Site Planning Layout



Consolidation Centre – Site Planning Layout



Reefers Block Train – with midstream Power Plant



Reefers Block Train – with midstream Power Plant





Reefers Block Train
Electrical Power Coupling

Reefers Block Train
Electrical Power Coupling



Mandate of Governments

- Align Government Strategies to fully incorporate and prioritize the goals and scope of this Programme
- Provide necessary resources for development of the proposed Cool Logistics Corridor

Key Infrastructure

- MGR and SGR lines
- Mombasa Port container terminals
- Inland Container Depots [ICDs] at Embakasi in Nairobi, Mai Mahiu in Naivasha, Kisumu and Eldoret
- Temperature-Controlled Logistics (TCL) and traceability

PPP Governance Structures - Board

Members of the Advisory Board will comprise the following:

- Kenya Flower Council (KFC),
- Fresh Produce Exporters Association of Kenya (FPEAK),
- Shippers Council of Eastern Africa (SCEA)
- Kenya Transporters Association (KTA)

PPP Governance Structures - Steering Committee

- State Department for Transport Kenya (SDOT), being represented by the Principal Secretary (PS) - [chairing]
- State Department for Trade Kenya, being represented by the Principal Secretary
- State Department for Crop Development and Agricultural Research Kenya, being represented by the Principal Secretary
- Kenya Railways Corporation (KRC), being represented by the Managing Director (MD)
- Kenya Ports Authority (KPA), being represented by the Managing Director (MD)
- Horticultural Crops Directorate (HCD), being represented by the Director

PPP Governance Structures - Steering Committee

- Kenya Investment Authority (KenInvest) represented by the MD
- Industrial and Commercial Development Corporation (ICDC) represented by the Chairperson of the Board of Directors
- PPP Private Sector company - represented by its Director(s)

Steering Committee - Roles

- Define a clear set of criteria for assessment of investments and projects, to be derived from the goal of this Memorandum
- Develop a Cool Logistics Corridor vision and subsequent strategic guidance and control of its realization, in line with the goal of this Memorandum
- Appointing parties and representatives to participate in the Technical Committee and Advisory Board
- Validating and prioritizing a roadmap of investments and projects
- Final decision-making on all matters within the responsibility and mandate of the parties and representatives in the Steering Committee

Steering Committee – Roles

- Aligning relevant government policies and programs to the Cool Logistics Corridor vision and program, and resolving of bottlenecks encountered
- Overall progress monitoring of the program

Technical Committee - Roles

Technical Committee role will be:

- To provide the main Steering Committee with expert input and actionable recommendations for decision-making
- Day to Day management of the program
- Stakeholders Management
- Monitoring the overall planning and progress
- Preparation of Project Reports

Project Working Group(s)

Project Working Group(s) will be formed on an ad hoc basis, and will disband once their specific target is achieved.

They will be responsible for the management of projects, including (pre) feasibility studies, and decision-making on investments.

Cool Logistics Corridor - Steps

- Develop the Vision for the Cool Logistics Corridor.
- Consultation of the horticulture & logistics sector to ensure industry commitment.
- Benchmarking Study Tours - to appreciate best practices on cool logistics for sea freight
- Undertake Environmental, Social & Governance (ESG) scoping study
- Undertake Sustainable Development Goals (SDG) impact assessment.
- Develop a roadmap for establishment of fully fledged cool logistics facilities and supply chain logistics
- Develop bankable projects for the cool logistics Corridor for potential investors

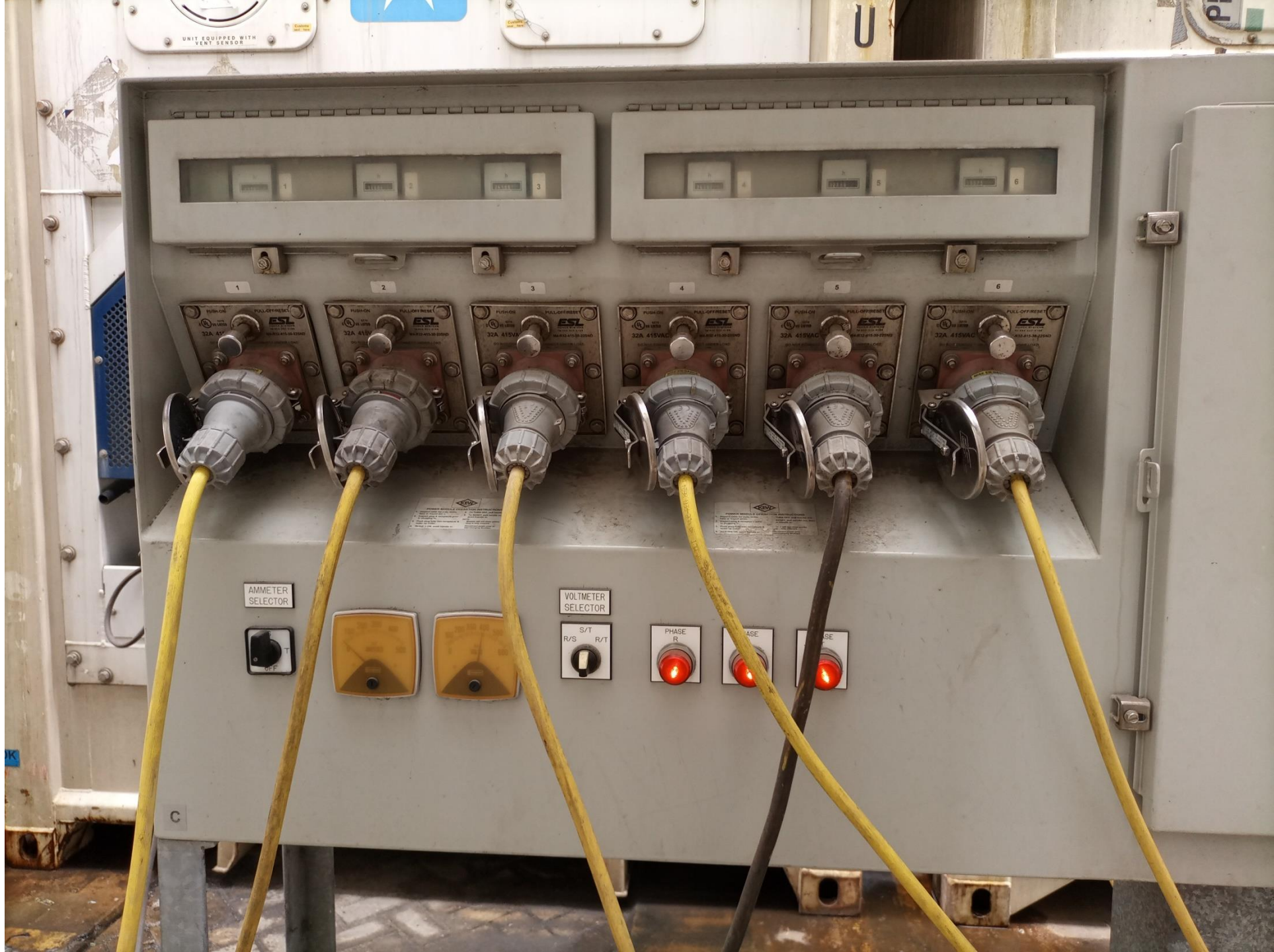
Consolidation Center - Steps

- Benchmarking Trade Mission to South American horticulture industry, to appreciate best practices on Consolidation Centres and Associated facilities for fresh produce exports by the sea.
- Benchmarking Trade Mission to South Africa, to appreciate transportation of reefer containers by Block-Trains for fresh produce exports by the sea.
- Location survey to identify ideal sites for Consolidation Centers for fresh produce exports by the sea.
- Detailed Design of Consolidation Centers and associated facilities for fresh produce exports by the sea.
- Develop Specific Agreements for construction of Consolidation Centers for fresh produce exports by the sea.

Stakeholders Engagement - Steps

- Create awareness and disseminate insights from studies in trade fairs, shows, exhibitions, amongst others.
- Create awareness to the key players in Kenya on the potential of the Standard Gauge Railway (SGR) facilities at Mombasa Port, together with its Inland Container Depots [ICDs] at Embakasi in Nairobi, Mai Mahiu in Naivasha, Kisumu and Eldoret.
- Create awareness to the key players in the Dutch and European Union (EU) markets on the proposed transition to sea freight.
- Carry out continuous market analysis on Kenyan fresh produce (horticulture, flowers, avocados and mange tout, etc.) to maintain current information on producer firms, value addition companies, volumes, etc.
- Carry out pilot studies on a direct and fast sea shipping connection between Mombasa Port and Rotterdam.

Reefer Distribution Panel IP65, with 400A MCCB; & 32A MCBs to the reefer points, to IP65 Standards





32A/1000W 4 pin PNP reefer
container sockets (64x2)

Supply and install 32A, 4 pin, 380-440 acV and 50-60 Hz reefer power outlet as MENNEKES IP67 (type 5946A) with running hour meter as AC/DC DYNAMICS(SQ48R) or equally approved



3No (Stack) Containers High





KPA Mombasa Port – 2Nos (Stack) Containers High



ICD Nairobi, Embakasi – 4Nos (Stack) Containers High

SGR Athi River Station SEZ Area



SGR Athi River Station SEZ Area



SGR Athi River Station – SEZ Area



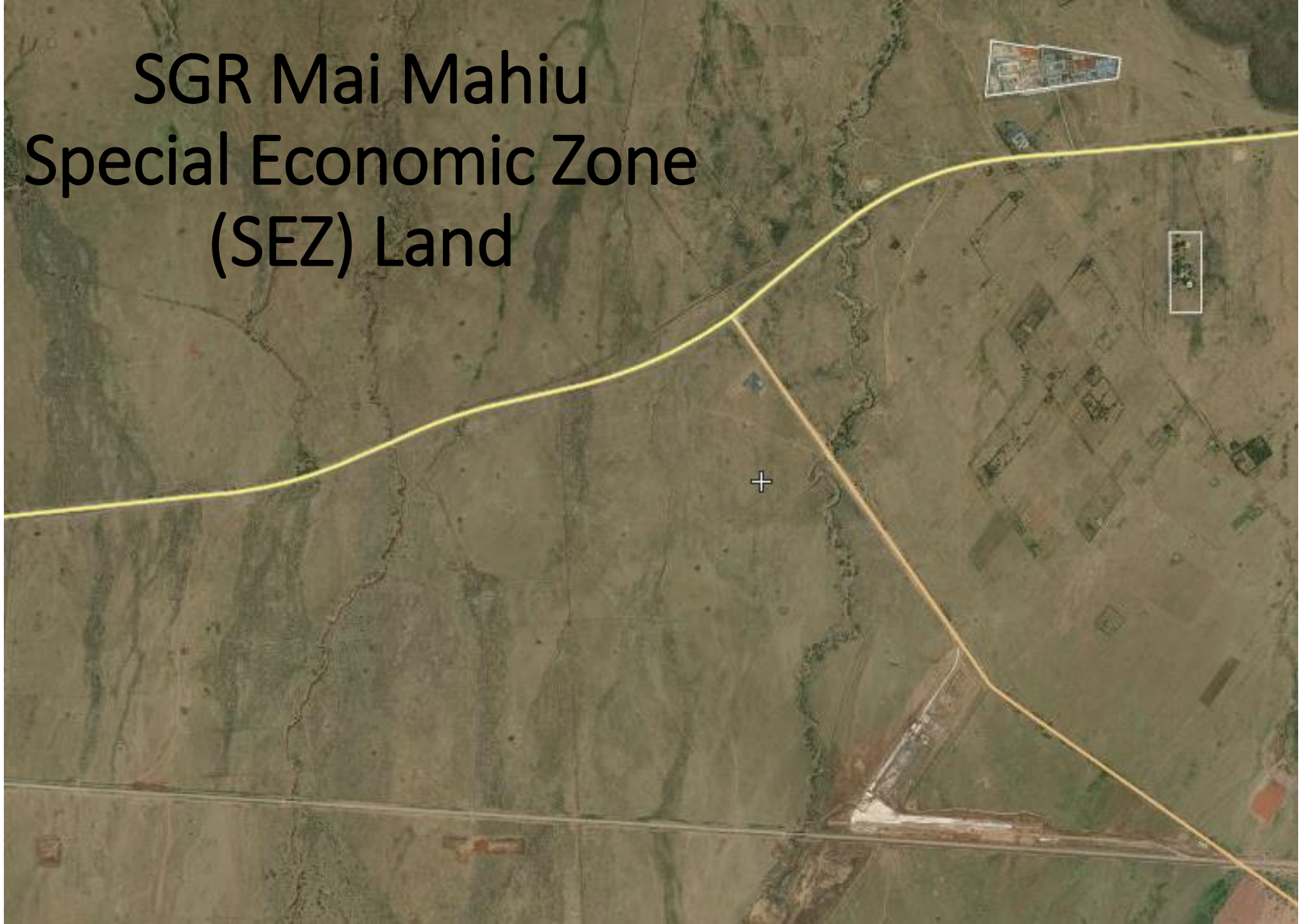
SGR Athi River Station – SEZ Area



SGR Mai Mahiu Special Economic Zone (SEZ) Land



SGR Mai Mahiu Special Economic Zone (SEZ) Land



ICD Mai Mahiu, Naivasha





SGR Mai Mahiu
Special Economic Zone (SEZ) Land

SGR Mai Mahiu Special Economic Zone (SEZ) Land





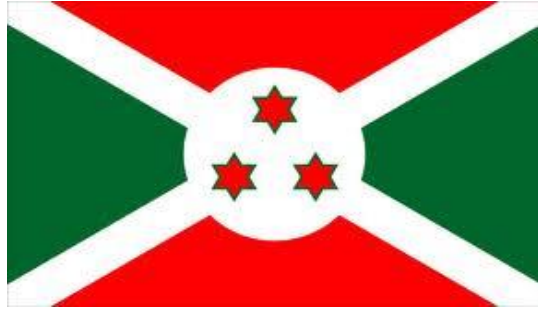
NX70 Wagon

NX70 Wagon



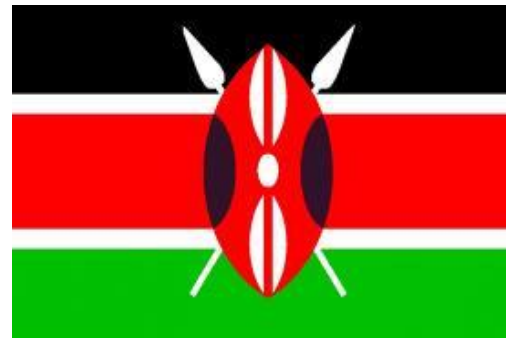
NX70 Wagon





NORTHERN CORRIDOR

Fresh Produce Transportation by Railways and the Sea



THANK YOU

- **Eng. Michael Muchiri**
- Senior Principal Superintending Engineer
- State Department for Transport
- Ministry of Roads and Transport
- NAIROBI, KENYA
- +254 733 798914
- +254 770 211002
- michaelmuchiri360@gmail.com
- michaelmuchiri@yahoo.com
- twitter.com/Mouchieeee
- michaelmuchiri360.wixsite.com/website

