



**Republic of Kenya**

**ASSESSMENT REPORT OF THE SOCIO-ECONOMIC IMPACT OF  
THE OPERATIONALIZATION OF THE  
MOMBASA-NAIROBI STANDARD GAUGE RAILWAY ON PORT  
CITY MOMBASA**

***SUBMITTED TO***



**COUNTY GOVERNMENT OF MOMBASA**



**University of Nairobi**

School of Business (SOB)  
P.O. Box 30197 – 00100 GPO  
Tel: (+254) 020-2059163/4, 020-2585841-6, 0724200311  
E-mail: dean-business@uonbi.ac.ke  
Nairobi, Kenya

**Report prepared by**

**Dr. Kennedy Ogollah (Team Leader-UoN), Dr. Kingsford Rucha (UoN),  
Dr. Joshua Aroni & Mr. Gichiri Ndua**

**August, 2019**

## EXECUTIVE SUMMARY

Kenya has made significant political, structural and economic reforms that have largely driven sustained economic growth, social development and political gains over the past decade joining the top 10 economies in Africa and being propelled to the level of newly industrializing “lower” Middle Income Country (MIC) with a per Capita Gross Income (GNI) of \$1,246 in September 2014. Some of the enabling factors that have contributed significantly to this achievement is Kenya’s growing youthful population, a well-trained and highly skilled manpower and workforce, improved infrastructure, a new constitution, as well as technology – factors which also double as necessary inputs into the growth process, and its pivotal role in Eastern Africa region.

Developing infrastructure as evidenced, enhances a country's productivity, makes firms more competitive, provides economic incentives to public and private sector participants and has a potential to boost a region's economy. Particularly, accessible and quality infrastructure plays a key role in shaping an entrepreneur’s investment decisions, thus is directly related to a country’s ease of doing business and determines its attractiveness to foreign investors.

Kenya’s Vision 2030 recognizes the enabling role infrastructure sector plays in realization of the overarching vision of a globally competitive and prosperous nation by 2030 and highlights the importance of scaling up the quantity and quality of infrastructure (which is one of the foundations of its three pillars namely economic pillar, social pillar and political pillar), aiming for interconnectedness through world-class infrastructural facilities and services. The vision of the infrastructure sector is “Deploying World Class Infrastructure Facilities and Services for a Globally Competitive Kenya”. Kenya Vision 2030. Although there has been a significant improvement of physical infrastructure facilities in the country years, there is still a huge deficit in infrastructure.

It is in this light that the Government of Kenya (GoK) has in the past two decades embarked on a historically most ambitious and revolutionary endeavour in infrastructural development. The government has invested heavily in world class infrastructure and one of the key flagship projects completed in the Second Infrastructure Medium Term Plan (MTP) (2013-2017) arrangement was the Standard Gauge Railway (SGR) Project - the most important railway channel in Kenya, which links the coastal city of Mombasa and the capital city of Nairobi in its first phase. It has a total length of 485.303km consisting of 33 yards/terminals.

The completion of the Standard Gauge Railway which is a flagship project is the hallmark of the country's expansion and interconnectedness strategy. It has however posed increased challenges during and after its operationalization among them the resultant effect on the County of Mombasa especially on its economic and social activities. This heightened with the Government's pronouncement requiring shipping agents to transport goods by SGR (SD, 2018) directly from the Port to the Inland Container Depot (ICD).

Despite the Mombasa County having a major socio- economic stake in the shipping and transportation sectors due to its location, no stakeholder engagement has taken place to assess the possible downsides as result of the Presidential directive. The County Government of Mombasa who are the proponents therefore found it necessary to commission this Assessment study of the Socio-Economic Impact of the Operationalization of SGR in Mombasa County to fully demonstrate its impact on both economic and social fronts, and provide the essential reference basis for negotiations with the National Government of Kenya, Foreign investors and the International lending Agencies such as World Bank, European Union, Trademark East Africa, Africa Development Bank and Donor Countries.

In this regard the proponent contracted the School of Business (SOB), University of Nairobi (UON), under the Government to Government partnership as the consulting firm to undertake a Social and Economic Impact Assessment (SEIA) full study and to draft a report. This report details the findings of that study.

### **Project Description and Project Justification**

Mombasa County owing to its unique geographic, historic and socio-economic and political situation has a number of strategic advantages and opportunities. These include development Corridors and initiatives by the National Government and neighbouring counties within and through the County that offer strategic opportunities towards achievement of the county vision. To this extend Mombasa County viewed the completion of the Mombasa-Nairobi Standard Gauge Railway Project which is the most important railway channel in Kenya linking the coastal city of Mombasa and the capital city of Nairobi as a great opportunity to deliver on the Counties development agenda.

The SGR is expected to ferry cargo directly from the Port to the Inland Container Depot (ICD). With the Government directive to have all the cargo to be boarded from vessel to rail (SGR), the tradition approach whereby the importers have had the liberty to determine how their cargo is cleared at the Port, and the eventual modes of evacuation to various destinations or to storage facilities such as the Container Freight Services has been taken away. This heightened concern for the County and the Port city of Mombasa more so due to the strategic nature of the county as one having a major socio- economic stake in the shipping and transportation sectors due to its location. There was also further concerns that a structured stakeholder engagement seem not to have took place to assess the possible downsides as result of the action.

The interest of implementing the operationalization of the SGR therefore, needed to be placed into the appropriate socioeconomic contexts and explained in the perspective of existing restrictions (such as societal, cultural, political, economic etc.). It required to be explained in terms of diverse institutional settings, organizational structures and policy processes especially for the hosting county which is Mombasa. In order to meet the challenge of integrating social and economic aspects it is necessary to develop an integrative approach encompassing methods, processes, data streams, among others that are able to grasp the interactions between complex systems.

This informed the basis for this Socio-economic Impact Assessment study to which the report provides an analysis of the “soft” measures flanking the technical realizations of the SGR projects and offers a preliminary assessment of the socio-economic impact in the various sectors. The socio-economic evaluation addresses the quality, social impacts, and added value of the SGR project in selected areas. Therefore, this assessment informed an **empirically** based analyses used to determine the complex interactions while noting that:

***“What is technically and economically feasible is not necessarily ecologically or socially acceptable, and vice versa”.***

## **Objectives of the Assessment Study**

***“The purpose of the study was to evaluate the possible impacts of SGR operationalization on the various socio-economic activities in Mombasa and the possible implications on the county revenues”.***

The following shall be the specific objectives of the study;

- 1) To assess the impact of SGR on Road Truckers in Mombasa County.
- 2) To analyze the impact of SGR on warehousing business in Mombasa County.
- 3) To assess the impact of SGR on Roadside Businesses in Mombasa County.
- 4) To examine the impact of SGR on Clearing and Freight Agents in Mombasa.
- 5) To analyze the impact of SGR on Container Freight Stations in Mombasa County.
- 6) To examine the impact of SGR on Drivers and people employed in related road businesses in Mombasa County.
- 7) To assess the Impact of SGR on Mombasa County Revenue.

The study relied on projections and possible perceived implication as informed by focused group discussions (FGDs), and evaluation of secondary data. The study focused on activities only at the County level and specifically within the City of Mombasa. To achieve the above scope of work, the consultants employed a rigorous and tested assessment line study line study methodology in order to identify challenges, remedial recommendations and way forward.

### **Study Area Baseline**

The Port City of Mombasa has interesting Physiographic and Natural Conditions enhanced by very interesting topographic features. The County lies within the coastal lowland which rises gradually from the sea level in the East to about 132m above sea level in the mainland. The terrain is characterized by three distinct physiographic features, which includes the coastal plain, which is are found along the shoreline, covering parts of the South Coast, the Island, parts of Changamwe and the North Coast. The plain consists of an expansive flat land with raised beach terraces covered mainly by coral limestone and back reef sand deposits that not only provide firm foundation for construction but also provide building materials.

The second category is the hilly areas mainly found within the Western part of the County that is underlain by shells and rises gently from 45m to 132m above sea level. This is characterized by poorly drained clay soils which restrict settlement and infrastructural development. The third category is the Indian Ocean and the shoreline covered with geologically sedimentary rocks of Jurassic to recent age. The topography has evolved as a result of the lowering of the sea level over time leading to severe erosion by the storm water draining into the sea. In addition, the Subsequent rise in sea level led to the submergence of the valleys and the creation of Mombasa Island surrounded by deep natural creeks, ports and harbors such as Kilindini,

Tudor, Makupa, and Old Port creeks. Other notable physiographic features include the fringing coral reefs, cliffs and tidal flats, sandy beaches, the coastal plain and a hilly severely dissected and eroded terrain. These features have greatly influenced the economic development of the County in a number of ways.

The county's ecosystem has both marine and terrestrial components. Both ecosystems are characterized by diverse species of flora and fauna, the most common being coconut trees and different species of fish, which have different cultural, social and financial values. The ecological conditions are evolving fast due to numerous developments in the county, including the recent dredging to deepen the Kilindini Channel of the port of Mombasa, construction of the second container terminal and the expected construction of the Mombasa City Southern by-pass (Dongo-Kundu).

The County lies within the coastal strip in the hot tropical region where the climate is influenced by monsoon winds with the annual mean temperature in the county is 27.90C with a minimum of 22.70C and a maximum of 33.10C. The urban and pre-urban population is 98 per cent of the county's population according to the 2009 census. It is projected to be 1,247,157 in 2018 and 1,327,008 and 1,412,008 in 2020 and 2022 respectively. The large urban population can be attributed to the fact that Mombasa is an industrial city, a port city and a major gateway to the East and Central African region. As a result, many people come into the city in pursuit of employment opportunities, education and investment opportunities. This implies more pressure on infrastructure, housing, transport and other social services, hence there will be need to invest in these sectors as well as expand economic activity to create more jobs for the rapidly increasing population.

In terms of the infrastructural development, the Port City of Mombasa has Roads, Rail Network, Ports and Airports, Airstrips and Jetties. The current status of infrastructure relative to roads, rail network, ports and airports, Airstrips and Jetties requires upgrade.

### **Policy, Legal and Institutional Framework**

Relevant Government of Kenya (GOK) policies and legislation, and international safeguards, guidelines, policies and conventions that frame a sustainable approach to eco-development, including the approach towards the social and economic impacts of such developments in this case the Mombasa- Nairobi Standard Gauge Railway (SGR) and the subsequent

pronouncements and directives by the National Government and how they should be mitigated were taken into consideration in undertaking this study.

The legislation have been used to inform the development of this SEIA report and to ensure that adequate mitigation measures are put in place to deal especially with the negative impacts as will be identified. In addition, it was necessary to review and use information as contained in a number of national and internal social-economic policies and plans, relevant institutional frameworks and other documents which were deemed important to oversee their fruition.

**For the National Policy Framework** the Sessional Paper Number 10 of 2012 on Kenya Vision 2030 is the National Policy Economic Blueprint that entrenches Kenya Vision 2030 as the long term development strategy for Kenya was considered. The Jubilee Governments 'Big Four', which is to guide the development agenda of the country in the period 2018-2022 along with the first and second County Integrated development Planning (CIDP) were also considered.

Other **National Legal Framework** were also factored in among them, the Constitution of Kenya, 2010; The County Governments Act 2012; The Physical Planning Act of 1996 CAP 286; Mombasa Vision 2035 and Jumuiya ya Kaunti za Pwani (JKP). Lastly several **National Institutional Frameworks** among them those of Kenya Ports Authority (KPA); Kenya Revenue Authority (KRA); Kenya Railways Corporation (KRC); Kenya National Highways Authority (KeNHA); Kenya Pipeline Company (KPC) Limited; Kenya Trade Network Agency (KENTRADE); Kenya Maritime Authority (KMA); Kenya National Police Service (KNPS); Kenya Bureau of Standards (KEBS); National Transport and Safety Authority (NTSA); Kenya Plant Health Inspectorate Service (KEPHIS); Port Health Services (PHS), and Radiation Protection Board (RPB)

### **Study Methodology**

The study conducted a baseline preliminary baseline analysis. Consequently, an information collection guide was developed and used as a standard format for collecting data. As well, Focus Group Discussion (FGD) guides were also developed for stakeholder's engagement for social and economic issues.

Primary data was collected between 27<sup>th</sup> August, 2018 and 14<sup>th</sup> September, 2018 with a further field work review and subsequent verification exercise taking place between 04<sup>th</sup> February, 2019 and 15<sup>th</sup> February, 2019 within Mombasa County targeting the specific zoned areas. Secondary data was drawn from various Government and specified institutional source. Additional financial and operational data was obtained from the County Government of Mombasa, Department of Finance and Planning. The methodology included an inclusive project initiation process, consultative workshops and meetings to ensure the active participation of key stakeholders. With this context in mind, the proposed technical approach and methodology proposed contributed immensely to the successful delivery of this study.

In order to achieve and address the Terms of Reference for this study as provided by the client (CGM), the study adopted a cross-sectional Survey design with a fusion of dominant quantitative and qualitative approaches. This Evaluation Framework (EF) was modelled along two methodological elements, namely (1) Economic and social issues assessments; and (2) Stakeholder consultations.

A phased methodological approach based on, a six stage assessment line study methodology was used. Stage one: Project commencement; Stage two: Historical perspective including port throughput, modal split and socio-economic status prior to the operationalization of SGR; Stage three: Development of data collection tools, sampling, quality assurance and training materials; Stage four: Preparation for fieldwork and training of research assistants and enumerators; Stage five: Data collection/field work, data cleaning, analysis and presentation; Stage six: Final presentation and project sign off.

Methodological pillars of the analytical process was applied involving economic and social analysis. This approach is anchored on six main pillars namely: Screening and scoping analysis; Gravity & scenario analysis; Additional quantitative and qualitative analysis; Sectoral Analysis; Causal Chain Analysis (CCA); Economic Analysis and econometric Analysis. The first six pillars are part of the analytical process while pillar six refers to the interactive part. The general criteria for selecting significant socio-economic impacts covered the following, Probability of the event occurring; Duration of the impact; Value of benefits or costs to the impacted group; Extent to which identified social impacts are reversible or can be mitigated; Likelihood that an identified impact will lead to secondary or cumulative impacts; and Uncertainty over possible effects.

## **Identification of Socio-Economic Impact**

The operationalization of the SGR and the subsequent directives from the Government are envisaged to generate Economic and social which could be positive or negative, direct or indirect, local, regional, reversible or irreversible and hence the necessity to subject the proposed project to SEIA process.

The process of determining the various impacts was done through stakeholder participation, discussion with proponent's technical team, field data collections and surveys, review of the secondary data on project, and review of appropriate policy and legal frameworks. The prediction and analysis of the social issues identified are discussed within two framework areas of FGDs and Field data analysis and these have been collapsed into six themes namely: (1) Employment Opportunities; (2) Security Concerns; (3) Psychological and Related Issues; (4) Breakup of Societal Bonds; (5) Health Services in Mombasa County; (6) Housing Situation. Stakeholders during the FGDs provided vital statistics that inform later analysis and included service providers listed in the Port Community Charter.

Focus for the discussions on Economic impacts were conducted along the following themes: (1) Business Growth for stakeholders (Profits); (2) County and Regional Business Growth (Revenue); (3) Job Implications (Personal gains); (4) Financial Obligations on the County Government (5) Future Prospects. This was done through Pearson Correlation analysis along with economic and econometric analysis.

## **Possible Positive Impact**

**1. Tourism Promotion** it was evident that that operationalization of SGR in Mombasa County will have a positive impact on tourism due to reduced cost of commuting and high passenger capacity to and from Mombasa. As a result it was envisaged that there will be some positive impetus on this sector on both local and international tourism activities.

### **2. Decongesting Mombasa City**

There is notable decrease in the number of trucks carrying containers to and from the port of Mombasa. Due to the reduced number of trucks in County of Mombasa roads accessing the port through Changamwe, Port-Reitz, Docks and Shimanzi. This has resulted into a gradual reduction in congestion and traffic snarl-ups in the town and result in improved flow of traffic.

### **3. Environmental Protection**

This huge reduction in road traffic will reduce distillate consumption, potentially augmenting climate change management initiatives. With 60 – 80 trucks off the road the green gas emission reduction will be significantly reduced. This will also increase safety on the roads due to reduced traffic.

### **Negative Impact**

Some of the negative effects of the SGR operationalization and subsequent pronouncement to it noted during the assessment included:

- 1. Road Truckers Collective Redundancies**
- 2. Closure of Trucking Businesses**
- 3. Impact on Warehousing Business**
- 4. Roadside Businesses – Activity Contraction**
- 5. Container Freight Stations Relocation/Closure**
- 6. Job Losses (Loaders, Drivers, Mechanics, Shop/Hotel Attendants)**
- 7. Increase in Crime Rate and Social Ills**
- 8. Mombasa County Revenue**

### **Projected Quantitative loss**

Following the promulgation of the Constitution of Kenya 2010, development planning was devolved to the County Governments, thus resulting in enhanced demand for county-level data. KNBS is now generating data at County to capture Gross Domestic Product (GDP), economic growth, per capita income, sectoral growth and employment to supporting economic planning. Mombasa is the 4<sup>th</sup> largest contributor to the National GDP after Nairobi, Nakuru, and Kiambu respectively. The KNBS GDP done for the year 2018 indicate that Mombasa County had a GDP of 2.06 billion.

The Transport sector is the highest contributor to the County's GDP at 23 percent, then followed by manufacturing, real estate, and construction contributing 16, 12, and 10 percent respectively. In total the four sector contribute a 60 percent the GDP at county level. Following a study to establish the impact of SGR on the Port City of Mombasa, the findings indicate a significant impact both at macro and micro level. The quantified estimation to loss on County GDP and jobs is critical in this assessment and the results are captured in the table below;

### Summary of Quantified Projected Direct Losses

	Income Loss Per Annum - Kshs	No of Employee Redundant	Actual Immediate Loss	No of Employees	%ontage reduction
<b><u>Long distance Trucks</u></b>					
Accommodation	318,960,000				
Supplementary Industry	850,560,000				
Job losses - Long Distance	696,276,000	1,008			
Parking & Security	89,280,000				
<b>Sub Total</b>	<b>1,955,076,000</b>	<b>1,008</b>	<b>293,261,400</b>	<b>151</b>	<b>15%</b>
<b><u>Lubricants &amp; Fuels</u></b>					
Transit Trucks Fuel	1,329,000,000				
Local Transport	1,326,240,000				
Job Losses - local transport	696,276,000	2,763			
<b>Sub Total</b>	<b>3,351,516,000</b>	<b>2,763</b>	<b>281,527,344</b>	<b>232</b>	<b>8%</b>
<b><u>Container Freight Station</u></b>					
Job Losses	831,600,000	2310			
Turnover loss	26,400,000,000				
Clearing & Forwarding	781,200,000	4,340			
<b>Sub Total</b>	<b>28,012,800,000</b>	<b>4,340</b>	<b>16,807,680,000</b>	<b>2,604</b>	<b>60%</b>
<b>Loss to County GDP/Job loss</b>	<b>33,319,392,000</b>	<b>8,111</b>	<b>17,382,468,744</b>	<b>2,987</b>	
<b>Actual County GDP</b>					
<b>2018 KNBS Report</b>	<b>206,409,000,000</b>		<b>206,409,000,000</b>		
<b>Percentage of Loss</b>	<b>16.1%</b>		<b>8.4%</b>		

The result indicates that in the event the proposal to convey **all** upcountry cargo through SGR then the implications to the Port City of Mombasa's GDP and employment sustainability will be serious. It is envisaged that between the three sectors, long distance trucks, lubricants and fuels and container freights services a total contribution of Kshs 33.3 Billion will be lost as well as 8.111 jobs. If the option to ferry all containerized cargo is immediately effected this loss will translate to about 16.1% erosion to the County's GDP. It was evident that the situation as at time of the study confirmed that impact on the GDP of the county stands at

Kshs 17.4 Billion and 2,987 jobs, which translates to 8.4% which is already at 50% of the optimal loss envisaged. It is also important to note that the CFSs fully rely on containerized cargo, hence without any spillover to Port Side town, there is a high likelihood that most of them will close shop.

## **Conclusions and Recommendations**

The assessment was able to establish the following issues and bring out clarity surrounding the debates that have been on-going. To that extend the following have been empirically supported through this assessment,

1. There is a very strong link between the Port and the City of Mombasa thus creating a situation of a “mutual inclusive” relationship.
2. The operationalization of the SGR and subsequent pronouncements to it has significant impacts on the key stakeholder and service providers
3. There is impact on the provision of social services within the county and possible escalation of security concerns is evident
4. The operationalization of the SGR has impacted on the small businesses adversely.

In light of assessment findings the report proposes the following actions to be considered:

1. County Government to make a case to be part of the Port Community as a key interested party (Landlord Policy Framework of PA Governance model)
2. The County Government on behalf of its business community members to lobby the National Government for policy/legislative alignment that will allow market forces to operate freely to create a sustainable environment for other sector stakeholders.
3. To mitigate depletion in County GDP as result of cargo evacuation, County Government to lobby for additional funding either from National Government or to negotiate with KPA for a throughput based cess levy model (to bridge potential decline in revenues).
4. Fast truck alternative investment, including SEZs (Dongo Kundu) and other potential industrial parks to create new employment
5. To negotiate for passenger termination to be extended to old Railway Station.
6. Restoration of Mombasa as Port City for export rather than import as envisage in the master plan.
7. Strategic Execution Team - Monitoring with a view to always act preemptively and to come up with subsequent assessments to support implementation.

