

ANALYSIS OF THE ECONOMIC VALUE OF THE STANDARD GAUGE RAILWAY (SGR) AND ITS CONTRIBUTIONS FOR KENYA

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Abstract: Evidently, after road transport, rail transport comes in as fundamentally the second most important mode of transport in Kenya, both for freight and passenger services. The Standard Gauge Railway (SGR) is a mega project that the Kenyan Government has invested in after freedom from the colonial rule. Critics are rife with sentiments that Kenya was not ripe for this investment and would have preferred that the funds be invested in other transport infrastructure development such as road networks which is perceived as critical for the moment. To clear and demystify the question of the ongoing uncertainty as to the economic viability of the project, the huge capital costs, allegations of graft and the concern that the projected benefits will fail to materialize as expected, and will not compensate for the high cost of the project, this paper will attempt to analyze the economic benefits that the SGR will achieve for Kenya. The paper will analyze how the SGR has enhanced tourism and trade for Kenya, how the SGR has reduced unemployment, how the SGR has enhanced both the social aspects and environmental conservation in Kenya. The study will review existing literature on metropolitan rail development with a few case studies from both developed and developing countries. This paper will reveal that the Standard Gauge Railway (SGR) has massive economic value to the country and beyond and is crucial to development and attaining Vision 2030 goals. The study recommends the completion of the remaining SGR phases in the projected time frame for the railway industry to play a positive role in national development.

Keywords: Standard Gauge Railway, employment, tourism and trade and environmental conservation.

1. INTRODUCTION

Transport is seen as a vital constituent of development and socio-economic growth. Among the factors suitable for economic integration, transport infrastructure and service facilities are precursors for facilitating trade and the movement of goods and persons. Transport infrastructure remains a key pillar of development and is an acceleration to growth and poverty reduction. In Africa, Kenya is among the countries lagging significantly behind because of the lack of reliable and adequate transport and transport infrastructure. The recent SGR development comes as a game changer not just for Kenya but for the entire East Africa region (United Nations Economic and Social Council, 2009).

In line with Kenya's vision 2030, The Standard Gauge Railway (SGR) infrastructure is undoubtedly among the flagship mega projects in the region that aims to strengthen the framework for infrastructure and economic development. The project is aimed at not only enhancing private sector participation in the provision of infrastructure facilities and services strategically complemented by government interventions but will also develop and maintain an integrated safe and efficient transport network, benchmark infrastructure facilities and services and provide globally acceptable performance standards targeting to enhance customer satisfaction (Kenya Vision 2030, 2018).

The SGR project also supports number nine of the seventeen Sustainable Development Goals (SDGs) which encompasses building resilient infrastructure, promoting inclusive and sustainable industrialization and fostering innovation. It will also address one of the top five challenges in the country; that of transportation and communication (Sachs, 2005). Incidentally, at the United Nations (UN) summit, Kenya led the rest of the world to come up with these goals and it will only be fair for Kenya to lead in the implementation (The Star, 2015).

After road transport, rail transport fundamentally comes in as the second most important mode of transport in Kenya, both for freight and passenger services (ERSWEC, 2003 - 2007). The very first railway in Kenya was built by the Imperial British East Africa Company supported mainly by Indian laborers. It was commenced in the 1890s in the port city of Mombasa and arrived at Kisumu in around 1901 (Gachanja, 2017). It was 1,000 mm and was a single track network called the metre gauge. Initially, it was referred to as the Uganda Railway owing to its destination in Uganda. This railway first came into operation in 1903 and laid a basis for and defined the location of most towns which sprung up along its course. It had branches built to Thika town in 1913, Lake Magadi in 1915, Kitale in 1926, Naro Moru in 1927, Tororo branch to Soroti in 1929 and to Mount Kenya in 1931. The line was instrumental for Kenya in that it linked the Indian Ocean to Lake Victoria and the East African hinterlands (KRC, 2017).

Gachanja 2017 opines that the old railway transport sector in Kenya saw pitfalls that affected its contribution to the economy and the Government. The railway line experienced a myriad of challenges including poor administration, segmentations of the East African Community in 1960s and underfunding by the Government. The inevitable outcome was the dominance of road transport (Gachanja, 2017).

2. THE STANDARD GAUGE RAILWAY IN KENYA

The SGR idea was conceived in June 2013, when the first infrastructure Summit of the Presidents of Kenya, Rwanda and Uganda was held in Uganda. The summit put in place mechanisms for fast tracking the SGR development system that would link Rwanda and Uganda to the port of Mombasa to enable faster socio-economic transformation of the East and Central Africa Economies (Northern Corridor Integration Projects, 2018).

The summit led to the signing of the Tripartite Agreement for the development and operation of the SGR between Mombasa-Kampala-Kigali with branch lines to Kisumu (Kenya) and Pakwach/Gul-Nimule (Uganda) between the Republics of Kenya, Rwanda and Uganda in August 2013. The Republic of South Sudan acceded to the agreement in May 2014 extending the line to Juba. The 3rd Joint Communiqué directed the Partner States to develop a SGR Protocol for the development and operations of the Standard Gauge Railways. The Protocol was signed by Kenya, Uganda, South Sudan and Rwanda in May 2014 (Northern Corridor Integration Projects, 2018).

The Northern Corridor Integration Projects (NCIP) 2018 spells out the overall objective of the SGR as to jointly develop and operate a modern, fast, reliable, efficient and high capacity railway transport system as a seamless single railway operation among the Parties with the specific objectives of:

1. Expediting economic growth and development of the Parties by reducing the cost of doing business and increase the region's competitiveness;
2. Enhancing spatial development along the SGR corridor;
3. Enhancing efficient and cost effective movement of freight and passengers in the region to accelerate trade and services; and
4. Sustaining development of other transport infrastructure and adopt new technologies to enhance economic development (Northern Corridor Integration Projects, 2018).

The SGR was also motivated by the prospects of the ease of the cost of doing business by lowering transport costs and time, as well as trade facilitation and integration in the EAC, in 2014, the Government of Kenya and Uganda have made a comeback in the transformation of the railway sector by developing the Standard Gauge Railway (SGR) project partnering with the Chinese Government. Tanzania on the other hand has decided to engage a Turkish contractor on construction of its second phase of the SGR (Gachanja, 2017). All efforts are ultimately geared towards a common goal of integrating the EAC.

The project revolves around the development of a modern high speed, high capacity standard gauge railway for passengers and freight within the Northern Corridor, with speeds of 80 Kilometers per hour (Kph) for Freight trains and 120 Kilometers per hour (Kph) for Passenger trains. The SGR comes with promises of cost savings projected in the next three to five years when finally fully operational. It is also expected to be a major economic transformation that would come with huge price cuts for commodities (Kenya Vision 2030, 2018). The SGR project is estimated to cost KES 1.02 trillion (Nkirote, 2017). According to the Kenya Railway Corporation (KRC) 2017, the railway is planned to be built in

two phases: Phase 1 which is the Northern Corridor will run through 472 KMs from Mombasa to Nairobi and Phase 2 will cover 490 km which will run from Nairobi to Kisumu and Kisumu to Malaba and will further be divided into three sub-phases: Phase 2A covering 120 km will run from Nairobi to Naivasha. Phase 2B covering 262 km will run from Naivasha to Narok, Narok to Bomet, Bomet to Nyamira and Nyamira to Kisumu to include the New Kisumu Port. Phase 2C covering 107 km will run from Kisumu to Yala, Yala to Mumias ending at Malaba (Kenya Railways Corporation, 2017).

The SGR was officially commissioned in Mombasa on November 28th 2013. This was motivated mainly by the prospects of the ease of the cost of doing business by lowering transport costs and time, as well as trade facilitation and integration in the EAC, in 2014, the Government of Kenya made a comeback in the transformation of the railway sector by developing the Standard Gauge Railway (SGR) project partnering with the Chinese Government. Phase one of the SGR between Mombasa and Nairobi was completed in June 2017 and passenger operations were launched under the Madaraka Express service (Gachanja, 2017).

The standard gauge railway between Mombasa and Nairobi runs through the counties of Mombasa, Kilifi, Kwale, Taita-Taveta, Makueni, Kajiado, Machakos and Nairobi (Railway Technology, n.d.). The SGR line will run parallel to the existing metre gauge railway and the Mombasa-Nairobi Road or A109 Highway for the most part deviating at certain points to attain the desired gradient and curvature (Railway Technology, n.d.).

3. WHY THE STANDARD GAUGE RAILWAY?

The SGR has redefined Railway transport in Kenya. The launch of the 472 Kilometer stretch of rail on May 31st May 2017 saw the largest and most expensive infrastructure project in Kenya since independence from the British Colonial Government 54 years later (Nkirote, 2017). This historic development came at a whopping cost of \$3.2 billion of which 80% is a loan advanced to the Kenyan Government by the Chinese Government (The Star, 2017). The huge cost of the project and estimated low returns leads many Kenyans to concur with the works of Bent Flyvbjerg “iron law of mega projects” which states that mega projects are repeatedly over time, over budget, and under benefits (Flyvbjerg, 2014). There is ongoing uncertainty as to the economic viability of the project, due to the huge capital costs and allegations of corruption. The main concern is that the projected benefits will fail to materialize as expected, and will not compensate for the high cost of the project.

On her part however, the Kenyan government expects the new line to bring a turn around to the economy by boosting the country's GDP by 1.5% according to the country's transport cabinet secretary James Macharia (The Star, 2017). The purpose of this study therefore is to attempt to analyze the economic value of the SGR for the country since its inception to date.

Garmendia et al (2004) posit that in combination with supplementary financial and economic policies, the role of transport infrastructure including roads, railways and ports in facilitating the movement of goods has long been acknowledged as a crucial element in supporting the environment for economic growth (Briceño-Garmendia, Estache, & Shafik, 2004). A recent study by the World Bank revealed that an emphasis by the development community in fostering productivity and economic development, affordable and reliable transport could reduce poverty and contribute to the Millennium Development Goals (MDGs) (World Bank 2010). Although there is adequate evidence to support this in developed countries, supporting research with regards to the effect on developing countries, particularly African nations, is severely lacking.

Barrow (2017) opines that poor connectivity or the lack of it thereof between African countries is a fundamental cause for intra-African trade and economic imbalance. The African Economic Outlook 2017, compiled by the African Development Bank (AfDB), the OECD Development Centre and the United Nations Development Programme, reveal that the transport and communications infrastructure needed to speed up economic development is less developed than those that link the continent to the rest of the world and recommends that increasing transportation links, improving rails that connect internal growth centers is a priority in reducing time and cost of doing business not just in Kenya but in Africa as a whole (AfDB OECD UNDP 2017) the lack of which would present a major setback where impacts of regional integration on trade and development are concerned (Barrow, 2017).

Railway infrastructure in developing countries is generally either in poor condition or nonexistent. A considerable investment is required to return it to an optimal functional state. This rings particularly true for Sub-Saharan Africa (SSA)

where railways lag behind those of other regions both in quality and quantity (African Development Bank, 2006). To realize this goal, the Kenyan Government has constructed the Standard Gauge Railway (SGR) that will connect the port city of Mombasa with the capital, Nairobi and to other East African countries of Uganda, Rwanda and South Sudan, reducing travel costs and simplifying transport operations across borders as well as providing economic benefits to both Kenya and neighboring countries. The SGR mode of transport has thus proven to be cost-effective as far as moving bulk cargo over long land distances is concerned (United Nations Economic and Social Council, 2009).

The World Bank has indicated that there are significant benefits that an efficient railway network could offer to both economic growth as well as trade unification in Kenya as well as the East African Community (EAC) region (World Bank - Africa Transport Unit 2013). It does not therefore come as a surprise that the SGR is the flagship project of Kenya Vision 2030.

It rings true according to Frank that rail transport is increasingly favored regionally and nationally by governments as the most energy and cost efficient mode for the movement of freight and passengers (Frank, 2014). Compared to other means of transport, railway transport is more reliable in transporting large numbers of people at high speeds. Notably, rail systems come in handy in decongesting road transport networks. Granted, the initial implementation of new rail systems can initially be difficult and cost forbidding; but the long-term benefits are tangible, fruitful and long-lasting.

Barrow 2017 presents history as to indicate a traditional north-south divide when it comes to gauges in Africa. In North of the Sahara for example, the standard-gauge dominates, while in sub-Saharan Africa, narrower gauges (particularly 1067mm or Cape Gauge) predominate. Most of these networks were built by colonial powers to serve the primary, albeit selfish objective of extracting and exporting raw materials as efficiently as possible from the hinterland to the port (Barrow, 2017). Suffice it to say, these railways do not serve the needs of modern African economies as is required. There exists a strengthening consensus in sub-Saharan Africa that good-quality rail links are urgently needed to reduce the cost of transport and unlock the potential of regional economies, especially in areas that are landlocked or have poor access to ports. The issue of gauge becomes definitely important when the question of underdeveloped networks and better connections arises.

A Standard Gauge Railway is defined as one that is built based on a uniform distance, or width between the inner sides of the rail. Such lines are adapted when the expansion of rail transport as part of efforts to allow inter-connectivity and inter-operability become inevitable (africanews., n.d.).

Today, the standard-gauge is seen as the new global standard, save for a few countries such as the United States. It is rare to see new railways being built to any other gauge unless there is a strong connective element with existing lines for example in South America. Another reason for the popularity of the SGR is the Chinese influence and its financial muscle. This brings Chinese technical standards to many countries that are now embracing support from the East. Prime examples of where Chinese-backed standard-gauge networks are taking shape in the region are Ethiopia, Kenya and Tanzania, a probable chance that the standard-gauge will soon be welcomed across the east and centre of Africa sooner than later.

According to the KRC managing director, Mr. Atanas Maina, there are 33 stations along the Nairobi Mombasa line, whereby two will be traffic hubs at both ends and eight will be intermediate stations. 23 of these will be passing stations (Oirere, 2017).

4. SGR AND EMPLOYMENT CREATION

There exists optimism that once operational the line will provide the foundation for further economic growth in Kenya and East Africa, the first phase of the project has already proven this correct owing to the significant additional jobs created as a result of the SGR. Maina says the project has blessed nearly 19,000 local people with direct employment and about 6000 with indirect employment. 250 local suppliers have been directly engaged with supplying materials and subcontracting services to the project (Oirere, 2017).

In providing job creation opportunities for the locals, the Chinese contractor, aside from the main civil works, is mandated to construct four freight terminals, a traffic control centre, installation of utilities, signaling and information technology facilities for all the 33 stations.

Other input on the project includes drainage works, slope protection works and grassing, as well as supply of materials such as sand, cement, fuel and steel. Local car hire and logistics service providers have also been sub-contracted by CRBC. However, according to Ouna, mobilizing enough large local contractors to partner with CRBC to realize the 40% local content target for the project remains a major challenge.

5. URBANIZATION

The rise of urban centers can be planned around the location of Railway stations. As the case with Kenya already indicates, railway stations have essentially attracted residential and commercial development resulting in high-density nodes (Edwards & Mackett, 1996; Gibbons & Machin, 2005). The benefits of rail are in the fixed nature of the mode. Rail systems have been shown to increase land value around train stations due to the increased levels of accessibility.

6. RETURNS FOR THE GOVERNMENT

According to Freight Africa, the SGR train in Kenya consists of 52 wagons. The freight trains will have a maximum capacity of 4000 tonnes, or 216 twenty foot equivalent units (TEUs), and the line has been designed to accommodate double-stack container trains (Freight Africa, 2018).

At the project flag off, President Uhuru intimated that the start of freight services would positively cut costs and delays for businesses. Designed with an axle load of 25 tonnes, the line is forecast to carry around 22 million tonnes of freight per year at a speed of 80-100km/h and 120km/h respectively for passenger trains from Mombasa, representing 40% of the port's throughput. The introductory offer for transport of a 20-foot container is \$US 500, and \$US 700 for a 40-foot container for a minimal chargeable distance of 300km (Smith, 2018). This is equivalent to approximately USD 777 Billion at a minimum per year. The passenger service is called Madaraka Express and is well designed to seat up to 960 passengers. There are two passenger trains per day each way between Mombasa and Nairobi, and 613 000 passengers had been carried between the opening and mid-December of 2017 (Freight Africa, 2018). The standard fare from Mombasa - Nairobi fare is Shillings 700 (\$US 6.77) in standard class and Shillings 3000 in Very Important Person (VIP) or first class. These charges are set to be reviewed upwards. At a bare minimum, this is equivalent to USD 4M per year for passenger transportation. Other charges include but are not limited to terminal charges, last mile transport charges, customs charges and 16% VAT on all domestic traffic (Freight Africa, 2018).

7. ENVIRONMENTAL CONSERVATION

A major contributor to climate change is Carbon Dioxide (CO₂). Unfortunately, all motorized transport produces Greenhouse Gases (GHG) in this form. Railway transport is an energy-efficient mode of transport and hence produces relatively less CO₂ emissions per passenger than other modes. In comparison, the emissions of CO₂ per passenger/Km are, on average, approximately half that of travel by car. Statistics indicate that in 1998, rail produced only 1% of the U.K's total emissions, road transport meanwhile accounted for 23% (Friends of the Earth - Fact Sheet, n.d.).

Transport contributes to some 24,000 premature deaths each year owing to poor air-quality thanks to engine exhaust emissions. In matters safety, rail transport is still a far safer mode of transport than road. One is 9 times more likely to be killed travelling by private car and 2.5 times more likely by air. Road users do not pay the true financial cost of the environmental damage they impact. A recent consultants report calculated that the costs of environmental damage, accidents and congestion per passenger kilometer travelled are 3-10 times higher for road than for rail (Friends of the Earth - Fact Sheet, n.d.).

In the U.K, rail transport accounts for 7% of traffic. The emissions are only 0.2% of Carbon Monoxide, 2% of Nitrous Oxide, 1% of Volatile Organic Compounds and 2.5% of Sulphur Dioxide emissions (Friends of the Earth - Fact Sheet, n.d.).

In matters energy conservation, rail transport scores highly as a relatively energy efficient transport mode by using far less energy per passenger per kilometer in comparison to road. For instance, a rail passenger travelling by high speed train, even at 200Km/hr, typically uses only 0.8 - 1.0 MJ of energy compared to 1.4 - 2.8MJ for a car driver/passenger. In 1999 UK road transport consumed 80 times as much energy as rail, while the distance travelled by road passengers and freight was only 15 times as much (Friends of the Earth - Fact Sheet, n.d.).

Despite recent improvements in the landscaping of new roads, railways are far less visually intrusive. Much of the rail network, constructed in the 19th century has had time to blend in to the landscape and in many cases arguably, actually enhances it.

For distant transport to and from cities along the line, the SGR is rapidly gaining popularity in Kenya perhaps owing to the worsening congestion on the roads which has seen most roads get dilapidated resulting into excruciatingly long road trips. Another reason for rail transport in Kenya is that road transport causes adverse effects on human health and the environment. This is not to say that rail transport does not have an impact on the environment but compared to other modes of transport its impacts are significantly less (Friends of the Earth - Fact Sheet, n.d.)

The separation of rail and guided bus-ways from the road network not only reduces tear and wear on the roads but also saves time by negating delays caused by congestion or negotiating in and out of traffic. In the U.S. for example, rail transport is the preferred mode of transport especially during peak hours. To keep people moving is one way to control carbon emissions. As opposed to having both man and vehicles held up in traffic, this study will later recommend that Kenya upgrades to the use of rail platforms as seen in developed countries where the opportunity for level access to the train carriages combined with automated ticketing will massively decrease what is offered by the current platform. This will also increase average travel speeds (Jefferson, 1996).

With the foregoing suggestion, the SGR will potentially become a reliable form of transport for Kenyans. The time schedule affixed to the SGR is important as it represents less dependence on motor vehicles. This enables people to control their travel by not being delayed, or having to wait stationary for long periods of time.

The cost of noise damage from road traffic in the U.K for example, is 25 times that of rail. Road noise affects the quality of life of many people. In the U.K for example, a study revealed that 32 million residents were exposed to greater than 55dB, while the comparative figure for rail was 1 million. The World Health Organization recommended a level of less than to preserve the restorative process of sleep. The cost of noise damage from road traffic in the UK is 25 times that of rail (Friends of the Earth - Fact Sheet, n.d.).

One freight train can carry 1000 tonnes of freight replacing 50 lorry movements. Most of the time on land transport, lorries produce the most noise, vibration and harmful particulates in the form of black smoke emissions. Rail systems, on the other hand, especially the electrified version can provide increased environmental benefits such as low carbon foot print, reduction in noise pollution and vibrations while the fixed nature of rail has been shown to increase pedestrian and passenger safety due to its high visibility and predictable travel path (Jefferson, 1996).

8. TOURISM AND TRADE

According to the New China, the poor state of roads has directly affected tourist arrivals in Mombasa from Nairobi. Tourists have been affected by connectivity issues due to the high cost of flying, and insufficient and irregular road transport. The Introduction of the SGR projects a seamless connectivity between Nairobi and Mombasa and creates an environment for a tourism boom. The tourism Minister Najib Balala, argues that trains are set to double domestic tourism in the country (Ruibo, 2017).

An article on Business Daily (2017), pointed out that with a total of 2,832 passengers travelling both directions on the SGR, the modern rail would offer travelers a free yet spectacular sightseeing of wild animals including elephants and zebras roaming Nairobi, Tsavo East and West national parks. This will enhance domestic tourism (Business Daily, 2017).

According to Nyabundi of standard media group, owing to the SGR, both local and international tourists will enjoy convenient and cheaper transport from Nairobi and Kisumu to the reserve famous for the Great Migration of the wildebeest.

The railway will also open up the not so famous Konoin caves and Itare and Chepkulo waterfalls to tourist exploration. Another site that would attract tourists is the Mau Forest complex where lucky tourists could catch a glimpse of the yellow-backed duiker antelope, the golden cat, the African elephant, the giant forest hog, the rare Columbus monkey, potto, Sotik bush baby among other species present along the SGR line. The region is also home to indigenous mosaic cedar and podocarpus forests enjoying a natural grassy landscape filled with meadows in lovely natural glades (Nyabundi, 2017).

9. SOCIAL VALUE

Atanas Maina, the Managing Director of Kenya Railways, views the SGR as the most significant game changer ever seen in the region. The Mombasa-Nairobi section of the SGR serves only as the first part of a much larger project. The initially running between Mombasa and Malaba, the SGR will eventually link Kenya to other major East African cities such as

Kampala, Kigali, and Juba. This will help the Kenyan government to strengthen its social, political and economic fiber with the corresponding countries creating a network of viral links between ports and key cities in East Africa (Kenya News, 2017).

Kenya, being an entry point for three landlocked countries, only means that what happens in the country directly impacts business in these landlocked countries. Felipe Manga, research, and planning manager at the Kenya Railways Corporation, posits that the benefits thus realized from the SGR will thus create efficient regional links, improve business within the EAC and foster strong multilateral relationships (Kenya News, 2017).

Closer home, one will see that other than the jobs related to the construction, the areas around the SGR stations along the route, or towns where they will be stopping, will see increased economic activities. This will include markets, hotels, transport, and trade. When business people are assured of timely target markets for their produce, on time, processing plants will naturally sprout along the SGR line (Kenya News, 2017).

The SGR project is expected to reduce rail transport costs from \$0.20 to \$0.08 per ton per kilometer. This cost saving is generated by use of block trains with economies of large scale compared to narrow gauge and road transport. With an estimated speed of up to 120Km/hour, or a four hour commute time, the SGR will greatly reduce the time required to move between the Kenyan towns. According to The International Railway Journal, citation required the new line is hoped to cut travel time from Mombasa to Nairobi to four hours for passengers, eight hours for freight trains significantly reducing travel time between the two cities from the current 15 hours to four and making a considerable impact on transport activities. This means one could have a breakfast meeting in Nairobi and arrive in Mombasa well in time for a lunch time meeting.

Targeting to produce some 15,000 Kenyans with the required skills to work in various departments associated with the SGR, training institutions are sprouting along the SGR line to take advantage of the existing skills deficit in the country within these areas.

In building capacity, a training program for operation and maintenance of the SGR project is under way. The China Road and Bridge Corporation (CRBC) has given out 60 undergraduate scholarships to Kenyan students to study railway engineering in China. This will create a pool of talent for railway development and sustainability.

CRBC has also come up with a diverse portfolio of projects aimed at improving lives of all Kenyans particularly those living along the SGR corridor. The firm has been philanthropic enough to allow the locals to use water from their boreholes. Among other projects CRBC has put up boreholes, school facilities, trading premises, sports grounds and feeder roads all geared towards improving the living standards of the local communities.

10. CONCLUSION

The SGR has played a crucial role in Increasing freight, volume, strengthening passenger transportation capacity, boosting the domestic economy and EAC infrastructure development, creating employment opportunities, stimulating the regional economy and enhancing people's living standards in the region. Internationally, the SGR is a start of a new chapter for Africa's regional development and is a game changer in promoting EAC international competitiveness.

On her first anniversary, the Standard Gauge Railway passenger train service dubbed Madaraka Express, was celebrated with hitch free operations. The report further indicated that a year after its launch, the SGR in Kenya only had ferried 1.3 million people between the port city of Mombasa and the Country's capital Nairobi and the towns along its route. Over 4,000 passengers were transported on a daily basis. This translated to over USD11.7M per year or over USD36, 000 per day (The East African, 2018).

It is evident that the SGR has so far unleashed massive benefits to critical sectors of the East African economy such as manufacturing and tourism and has also greatly enhanced technology transfer. The Madaraka Express passenger train, today makes two trips in each direction between Nairobi and Mombasa daily, has attained more than 95 percent occupancy and has reduced by half the time spent to connect to Kenya's first and second-biggest cities (China Daily , 2018).

In concurrence with James Macharia, Kenya's cabinet secretary for transport and infrastructure, it is indeed true that the SGR train has in the past year revolutionized movement of people, goods and services in the country. This achievement has been attained by lowering the cost of transport hence making it more affordable, convenient and reliable for Kenyans to travel for business and leisure (China Daily , 2018).

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